INTRODUCTION TO THE 2ND EDITION

This 2nd edition of Advanced Squad Leader Rules (ASL Rules 2nd edition) owes its existence to the fact that, fifteen years after the initial publication of the ASL Rules, the ASL hobby is still thriving, bigger and better than ever. Once the 1st edition was out of print, the 2nd edition became a necessity if the ASL hobby was going to continue to reach new players. The question then became what to change; merely re-printing the 1st edition was out of the question. In the past fifteen years, hundreds of clarifying answers and errata had been published, and numerous replacement pages had been issued. Much of this has been incorporated into the 2nd edition. Our intent has been to change the ASL Rules as little as possible, while making them clearer and cleaner. ASL works well and has stood the test of time. All ASL scenarios and campaign games will play the same with either 1st edition or 2nd edition rules. The only consequential new changes we are making concern the rules involving Wall Advantage and Bocage, which, despite one previous re-write, still were unclear for too many players. We hope we have corrected that now.

Since publication of the 1st edition, several important chapters have been added to the ASL Rules by various modules, along with the complete orders of battle for the Americans, British, Italians, Japanese, Chinese, Marines and Early War U.S. forces, French, and Allied Minors. (The publication of Armies of Oblivion by 2001 will provide the Axis Minor guns and vehicles, and update their infantry orders of battle, essentially completing the core system.) The Chapter E Miscellaneous rules came in Yanks, the Chapter F North Africa rules in West of Alamein, and the Chapter G Pacific Theater rules were split between Code of Bushido and Gung Ho! The Historical ASL modules Red Barricades, Kampfgruppe Peiper, Pegasus Bridge, Blood Reef: Tarawa, and A Bridge Too Far each has its own chapter. Solitaire rules came in the Solitaire module. Most of these rules are not contained in the 2nd edition. Rather, they come the way they always have, as part of the module to which they apply. We have, however, included them in the Table of Contents.

Compared to the 1st edition, several significant additions are included in the 2nd edition. Foremost among these are the Chapter E Miscellaneous rules from Yanks. The Miscellaneous rules open up so many scenario possibilities that we could not resist including them in the basic rules set. With the inclusion of Chapter E in the basic rules, ownership of Yanks is no longer a prerequisite for many scenarios that utilize rules from Chapter E.

The Chapter K Squad Leader Training Manual is also included, both the first six days originally published in Paratrooper as well as Day 7 from Pegasus Bridge and Day 8 from ASL Journal Issue 2. The detailed, easy-to-understand explanation of the basic infantry and ordnance rules in Chapter K is a boon both to the new player, and to anyone trying either to refresh their skills or just gain a better insight into how these rules work. Also included are the Night (E1.) aid from Pegasus Bridge, the Offboard Artillery Player Aid from Action Pack #1, and the Overrun Flowchart from Action Pack #2. These acclaimed playing aids help take the mystery out of the rules for night, OBA, and Infantry vs AFV combat, sections that even experienced players stumble over sometimes. Included also as an optional rule is the Incremental Infantry Fire Table (IIFT) originally published in ASL Annual '89 and reprinted (along with its accompanying article "One-Half FP Table") in Classic ASL. We prefer the classic structure of the official IFT, but do not want to ignore the following that the IIFT has gathered over the years.

Newly included also are the Chapter H vehicle notes for several of the German and Russian vehicles that were not included in Beyond Valor. Various rules in Chapters F and G and Chapter O (Red Barricades) modified the basic rules that went before; those changes are included in the 2nd edition rules. Similarly, some material in Chapter E has been moved to the DYO section of Chapter H. The Index has been significantly expanded and updated to include all the ASL Rules. Do not be surprised if the Index or Chapter H refers to a rules chapter that is not included here. Those other chapters open up whole new vistas for the ASL player, but they are not required to play the majority of ASL scenarios.

Much has changed since ASL was introduced 15 years ago. Back then Squad Leader was only nine years old, but the follow-on gamettes had already boxed that system into a corner. Advanced Squad Leader was necessary if the Squad Leader system was going to progress. Many players of the prior system were upset that those games were now superseded, with only the boards being usable in ASL. Others were disappointed that programmed instructions were not available for ASL. ASL did require both a considerable amount of money to acquire and a considerable amount of time to learn, but the past 15 years have shown that this was money and time well spent. The foundation laid in ASL was strong, well thought out, and flexible. The fact that we are printing this 2nd edition is a tribute to the elegance of John Hill's original Squad Leader design and to the hard work that Don Greenwood, Bob McNamara, and Charlie Kibler put into developing Squad Leader into ASL, and then building on that base. Those founders (and the company they worked for) are no longer involved in developing and producing ASL, but the system they built lives on.

In light of the many changes in the past 15 years, it is no wonder that much of what was discussed in the Introduction to the 1st edition is no longer relevant. (Much of that first introduction is still applicable, however, which is why we include it.) Original Squad Leader is out of print and cannot be considered a prerequisite for ASL. A simpler way of getting into ASL is needed, however, and we are devoting significant time and energy to developing an introductory ASL product that will be fun to play on its own and help ease players into the joys of ASL. Errata coupons are no longer included in the 2nd edition. After the two original errata coupons were redeemed for errata pages, subsequent replacement pages were all provided in subsequent modules. (Those first two sets of replacement pages for the 1st edition are available on our web site, as are all the published Q&A and Errata for the 1st edition). All those replacement pages are of course incorporated in the 2nd edition. We haven't decided exactly how to disseminate any replacement pages for the 2nd edition, but Q&A/Errata will be available both on our web site and in the ASL Journal (the successor to the ASL Annual).

Additionally, time has shown that the binder ring reinforcements suggested in the earlier Introduction are not the best way to preserve individual pages against frequent use. Polyurethane page protectors seem to be the most popular method. Finally, the chapter on postal play promised in that first Introduction never happened. Nor will it happen. Postal play went the way of the carrier pigeon with the advent of readily available e-mail. Now with accessible software supporting play over the Internet, even play-by-email is passé. Who knows what the future will bring? Don't expect a chapter in this area until things settle down, if they ever do.

With the publication of the ASL Rules 2nd edition, the rules just got a little cleaner and clearer. The future of ASL just got a little brighter now that the Rulebook is again available. Armies of Oblivion will come out in the next year, completing the core system by adding the Axis Minor guns and vehicles and updating their infantry orders of battle. An introductory version of ASL, including the complete ASL Rules on CD-ROM, is in the offing. In the meantime, work continues on various Historical ASL modules, historical studies, Action Packs, and Journals. We are thrilled to be bringing you all this. We look forward to many more years of ASL fulfillment.

Multi-Man Publishing

Advanced Squad Leader is a trademark of Avalon Hill Games, Inc., used with permission. © 2001 Avalon Hill Games, Inc., a Hasbro affiliate. All rights reserved.

INTRODUCTION

ADVANCED SQUAD LEADER (hereafter referred to as ASL) is somewhat of a misnomer; the connotation of "Advanced" suggesting that which is more difficult. While it is true that ASL in all its depth may well be more detailed in many respects than the original basic game, it is our belief that it is far simpler in application than the whole of all its predecessor's parts. To the purist, ASL should play far more smoothly than even basic SQUAD LEADER. For ASL is more than just a compilation of that which has gone before (although reorganization plays a significant role in the greater playability of the game). Rather, ASL is a new game forged from combat trials of nine years of constant evolution as simulation gaming's widely acknowledged leader in its field. Veteran squad leaders will find that the system itself has changed in myriad ways and that rules and consequent tactics employed countless times in the past may no longer apply. ASL will require careful scrutiny by veteran and novice players alike; those expecting to use it merely as a handy reference book to a system already learned will be surprised by the extent of inherent change. ASL is a new game complete unto itself and entirely separate from its predecessors. Do not blend old and new rules. When you play ASL you should use only that which is included herein.

We have tried to keep to a minimum the vast amount of verbiage required to thoroughly cover such an enormous system by liberal use of abbreviations and elimination of such common caveats as "unless specified otherwise". Readers should check the Glossary for the meaning of any unfamiliar term or phrase (the Glossary always defines/references any abbreviated or capitalized term) and keep in mind that any SSR always takes precedence over the game system. References to the Designer's Notes found at the end of each chapter are made in the form of footnotes to applicable rules. In this way, the historical relevance or design intent of a rule can be given in considerable detail without interference with the presentation of the rules themselves. Players should find it helpful in learning the game to refer to these Designer's Notes as they come to them. Thereafter, they need rarely be consulted.

Although we have spared no expense in illustrating these rules, certain practical limitations were adhered to. The player should be alert from the outset that all illustrations posed against the background of the full-color mapboard lack the red and white symbology actually provided on many of the vehicle counters. Therefore, most vehicle counters depicted thusly will appear somewhat different from the actual counters but are still considered to represent the counters provided in the game system without variation.

ASL does not bear the burden of many of the initial design errors that plagued SQUAD LEADER and its progeny. Many cumbersome concepts of the original game have been removed to allow for a more detailed, yet simpler, handling of combat at this level. This, in turn, has allowed the deletion of entire rule sections whose main contribution to the old system was measured in terms of complexity and increased playing time. The scope of the game system has been narrowed to more manageable proportions, and one more in keeping with a game on this scale. Therefore, if a distantly recalled rule isn't found herein, it hasn't been forgotten, it has been removed! While this will doubtless cause consternation to grognards who find their favorite bit of rules trivia removed from play, the end result is that ASL plays smoother and is on a level more accessible to the majority of players.

Concentrate on what the rules do allow; not on what they don't specifically prohibit. For example, if a rule states that a MMC can perform a particular action, then only that unit type can perform it-don't think that several SMC can do it simply because the rules don't list that type as being unable to do it. Play by what the rules specifically allow or disallow, not by what they don't specifically prohibit. For example, rule C13.8 prohibits bazooka fire at a target two or more levels higher in an adjacent hex. The rules say nothing about firing a bazooka at a lower elevation target or at a target two or more levels higher in a non-adjacent hex; therefore such fire is allowed.

ASL is still a bit much for the uninitiated. Without the comforts of Programmed Instruction, the wealth of detail is likely to be too much for the novice. ASL assumes at least a working knowledge of the game system by the reader, so possession and mastery of basic SQUAD LEADER should be considered a prerequisite. However, for those who have ignored the warnings on the box and purchased ASL without first having played SQUAD LEADER, a special chapter will eventually be included to help the uninitiated through what must seem to them a maze of technical rules with a humorous, easy reading approach. If you find yourself overwhelmed by ASL, wait for the SQUAD LEADER TRAINING MANUAL Chapter to get a firmer grasp on the basic fundamentals of the game system, or purchase the basic SQUAD LEADER game and benefit from its Programmed Instruction approach.

ASL comes in only two flavors: a complete basic system, and optional rules which can be incorporated into the former by mutual consent. The list of Optional rules in the Index should be checked and agreed upon before choosing sides in any scenario. It should also be pointed out that ASL is not necessarily compatible with previously published scenarios. Although you may well be able to play such scenarios with ASL, we make no claims as to play balance, design validity, or completeness of such attempts. ASL is a distinct game in its own right and our design time was judged better spent with scenarios designed and playtested exclusively for this system. Therefore, when purchasing additional scenarios or modules for use with the ASL system, the buyer would do well to look for the distinctive ASL logo on the product to be sure that it has been designed and playtested for use with ASL rules and components.

ASL incorporates an update and improvement of no less than four major previously published games and several new ones in one package. Future additions to the system (such as Japanese ASL) will also be accommodated in this binder format as simple chapter additions or changes to the pages already present. Initially, we strove to include as many of the original components of the SQUAD LEADER series as possible to reduce the cost of the new game system to the established player. However, as development progressed and the game system continued to improve on its old foundations, it became increasingly obvious that nearly all the original counters had to be replaced. To attempt anything less would have been to resort to the type of "patch job" mentality that necessitated the need for ASL in the first place. It also would have been a constant source of confusion to players who had to face ordering and separating defunct counters from valid ones. Therefore, we decided to establish a firm foundation for ASL with an entirely new set of counters specially designed for the innovations of the new system. The only previously published components completely usable in ASL are the mapboards which can be purchased separately by mail. However, many old counters (such as the Target Acquisition counters) can be used unchanged in ASL and others (such as the squad counters) can be pressed into service for large DYO scenarios with only minor inconvenience. Players are urged to make ASL Module #1 BEYOND VALOR their first acquisition as it contains all the updated counters for two opposing nationalities as well as the informational counters needed to play the ASL game system. Those not wishing to purchase this module may mail-order the individual counter sheets therein as befits their own needs. A reduced illustration (front and back) of all such components is included herein.

The looseleaf binder format is a first for our company and acknowledges the ills of a constantly evolving system. Although we would like to say that this is the final word, experience has taught us that perfection is an elusive target and almost impossible on a scale this large. However, players should find it easy to augment any additions to ASL by posting them to the binder as new modules become available. Errata and changes, the inevitable miscreants of a system as rich in detail as this, may be cleanly incorporated into the binder by simply replacing obsolete pages with new ones containing both the old rules and the changes highlighted with a gray screen. Such modifications will be made available by mail at the specified date in exchange for the Registration coupon located herein as per the instructions printed thereon. Nevertheless, those anticipating frequent play would do well to reinforce the individual pages with binder ring supports which are available in most stationery stores.

Although ASL is not designed with postal play in mind, we have noticed the efforts of SQUAD LEADER enthusiasts in the past who have attempted to play it by mail. We still don't advocate postal play of ASL; the game system has too many phases to make the game easily played in that medium. However, for those so inclined, we will eventually provide a chapter on postal play suggestions so that all interested parties will at least have a common background when attempting to do battle through the mail. You will also find inside a chapter entitled DELUXE ASL which provides the necessary rule modifications (actually simplifications) for playing ASL on a mapboard scale roughly 2.5 times the standard size. DELUXE ASL allows the use of panoramic miniature figures with its 2.2" hexes and, more importantly, it all but eliminates stacking and counter facing difficulties, thereby greatly increasing playability. DELUXE ASL mapboards are sold in boxed modules containing four 11" X 27" mounted, geomorphic boards and a pad of 10 specially designed scenarios.

By simplifying the game system and making it more accessible, we expect to issue new mapboards, scenarios, and a host of other accessories in far less time than in years past. For those who take the time to learn ASL, a lifetime of rich gaming experiences lies ahead. We have spared no expense in our attempt to make ASL the definitive tactical WWII combat system.

THE NUMBERING SYSTEM:

ASL is divided into major chapters lettered from A through Z. Mastery of the first four chapters is all that is necessary to play most ASL scenarios. The remaining chapters are primarily accessories and pertain to special interests. Each chapter is separated from the others by a heavy stock divider page which lists its Table of Contents as well as pertinent generic rules and the charts and tables referred to in that chapter. The individual rules of that chapter are given numerical case and sub-case reference codes. If reference is made to a rule without referring to a chapter letter, the reference is to a rule in the same chapter. If a numerical code is preceded by a letter, then the reference is to a rule in another chapter as identified by that letter. Lastly, whenever a seeming contradiction appears between rule cases, the higher alpha-numeric rule case always takes precedence, barring mention of a specific exception (e.g., B1 is a higher numbered rule than A1).



A. INFANTRY AND OTHER BASIC GAME RULES

1. Personnel Counters
2. The Mapboard
3. Basic Sequence of Play
4. Infantry Movement
5. Stacking Limits
6. Line of Sight (LOS)
7. Fire Attacks
8. Defensive Fire Principles
9. Machine Guns & SW Malfunction
10. Morale
11. Close Combat (CC)
12. Concealment
13. Cavalry
14. Snipers
15. Heat of Battle
16. Battlefield Integrity
17. Wounds
18. Field Promotions
19. Unit Substitution
20. Prisoners
21. Captured Equipment
22. Flamethrowers & Molotov Cocktails
23. Demolition Charges
24. SMOKE
25. Nationality Distinctions
26. Victory Conditions



B. TERRAIN

1. Open Ground
2. Shellholes
3. Roads
4. Sunken Road
5. Elevated Road
6. Bridges
7. Runways
8. Sewers & Tunnels
9. Walls & Hedges
10. Hills
11. Cliffs
12. Brush
13. Woods
14. Orchard
15. Grain
16. Marsh
17. Crag
18. Graveyard
19. Gullies
20. Streams & Crest Status
21. Water Obstacles
22. Valley
23. Buildings
24. Rubble
25. Fire
26. Wire
27. Entrenchments
28. Minefields
29. Roadblocks
30. Pillboxes
31. Village Terrain
32. Railroads
33. Stream-Hex Terrain
34. Towers



C. ORDNANCE & OFFBOARD ARTILLERY (OBA)

1. Offboard Artillery (OBA)
2. Gun Classifications
3. The To Hit Process
4. Gun & Ammo Type Basic TH# Modifications
5. Firer-Based Hit Determination DRM
6. Target-Based Hit Determination DRM
7. To Kill Tables
8. Special Ammunition
9. Mortars (MTR)
10. Gun & Ammo Movement
11. Guns as Targets
12. Recoilless Rifles (RCL)
13. Light Anti-Tank Weapons (LATW)



D. VEHICLES

1. Vehicle Counters
2. Vehicular Movement
3. AFV Combat
4. Terrain Modifications to Anti-Vehicle Fire
5. Inherent Crew
6. Transporting Personnel
7. Overruns (OVR)
8. Immobilization & Bog
9. Vehicles as Cover
10. Wrecks
11. Gyrostabilizers & Schuerzen
12. Horse-Drawn Transport
13. Vehicular Smoke Dispensers
14. Radioless AFV
15. Motorcycles & Bicycles
16. DD Tanks & Amphibians



E. MISCELLANEOUS

1. Night
2. Interrogation
3. Weather
4. Ski Troops
5. Boats
6. Swimming
7. Air Support
8. Gliders
9. Paratroop Landings
10. Ammo Vehicles
11. Convoys
12. Barrage



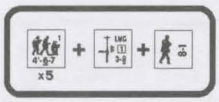
F. NORTH AFRICA

1. Open Ground
2. Scrub
3. Hammada
4. Deirs
5. Wadis
6. Hillocks
7. Sand
8. Sangars
9. Tracks
10. Hillside Walls & Hedges
11. Arid Climatic Conditions
12. Desert Overlays
13. Alternate Terrain Types



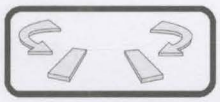
G. PACIFIC THEATRE

1. The Japanese
2. Jungle
3. Bamboo
4. Palm Trees
5. Huts
6. Kunai
7. Swamp
8. Rice Paddies
9. Panjis
10. Animal-Pack
11. Caves
12. Landing Craft
13. Beaches
14. Seaborne Assaults
15. Bulldozers
16. Tropical Climatic Conditions
17. The U.S. Marine Corps & Early U.S. Army
18. The Chinese



H. DESIGN YOUR OWN

1. Purchasing an OB
2. Vehicle and Ordnance Notes listings
   - Germans
   - Russians
   - United States
   - British
   - Italian
   - Japanese
   - Chinese
   - Landing Craft
   - French
   - Allied Minor
   - Axis Minor



I. CAMPAIGN GAME



J. DELUXE ASL

1. Miniatures
2. Converting ASL rules to Deluxe ASL

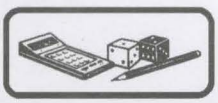


K. TRAINING MANUAL

1. Day 1: Marching
2. Day 2: LOS Course
3. Day 3: Rifle Range
4. Day 4: Close Combat
5. Day 5: Morale Indoctrination
6. Day 6: Concealment
7. Day 7: Light Mortars and Basic Ordnance
8. Day 8: Guns and Advanced Ordnance Principles



L. ONLINE ASL



M. ASL ANALYSIS



N. ARMORY

The pages for the ASL 1st Edition Armory were provided with their corresponding nationalities in each module. These pages are not going to be re-issued with the 2nd edition printing of the ASL Rulebook, nor with their corresponding modules. We hope to make them available in the future as PDF files, downloadable from our website at www.multi-manpublishing.com.



O. RED BARRICADES

1. Debris
2. Railway Embankment
3. Printed Rubble
4. Single-Hex Two-Story Building
5. RB Factories
6. RB Cellars
7. Culvert
8. Gully Entrance Hexside
9. Storage Tanks
10. MOL-Projector
11. RB Campaign Games



P. KAMPFGRUPPE PEIPER

1. Pine Woods
2. Slope Hexsides
3. Barbed-Wire Fences
4. Stream-Hex Terrain
5. Village Terrain
6. Hillside Walls & Hedges
7. Known Minefields
8. KGP Campaign Games



Q. PEGASUS BRIDGE

1. Irrigation Ditches
2. Partial Orchards
3. Slope Hexsides
4. Village Terrain
5. Combination Terrain
6. Towers
7. Barbed-Wire Hexsides
8. Hillside Walls & Hedges
9. PB Campaign Games



R. A BRIDGE TOO FAR

1. Arnhem Bridge
2. The Ramp
3. Factories
4. Cellars
5. The Blockhouse
6. Unit Replacement
7. Wide City Boulevards
8. Partial Orchards
9. ABtF Campaign Games



S. SOLITAIRE ASL

1. Introduction
2. Random Events
3. S? and ENEMY Attitude
4. S? Placement and Entry
5. Activation and Generation
6. ENEMY Actions
7. RPh
8. ENEMY Attacks
9. ENEMY Movement
10. ENEMY Rout
11. ENEMY APh & CCPh
12. The Missions
13. Mapboard Selection & Features
14. Victory Point Objectives
15. FRIENDLY Units
16. FRIENDLY Command Control
17. Solitaire Campaign
18. Campaign Companies



T. BLOOD REEF: TARAWA

1. Pathfinders
2. BRT Ocean & Reef
3. BRT Sand
4. BRT Palm Trees
5. Printed Rubble
6. Bunkers & Pillboxes
7. BRT Towers
8. Gun Emplacements
9. Port of Betio
10. Betio Seawall
11. Excavation Ditch
12. Gullies
13. Airfield
14. Off-Map Terrain
15. BRT Campaign Games



Z. MINI-MODULES

1. Kakazu Ridge
2. Edson's Ridge
3. Riley's Road
4. Primosole Bridge



A. INFANTRY AND BASIC GAME RULES

ORDER OF PRESENTATION:

1. Personnel Counters
2. The Mapboard
3. Basic Sequence of Play
4. Infantry Movement
5. Stacking Limits
6. Line of Sight (LOS)
7. Fire Attacks
8. Defensive Fire Principles
9. Machine Guns & SW Malfunction
10. Morale
11. Close Combat (CC)
12. Concealment
13. Cavalry
14. Snipers
15. Heat of Battle
16. Battlefield Integrity
17. Wounds
18. Field Promotions
19. Unit Substitution
20. Prisoners
21. Captured Equipment
22. Flamethrowers & Molotov Cocktails
23. Demolition Charges
24. SMOKE
25. Nationality Distinctions
26. Victory Conditions

A.1 DICE: The rules often require use of a colored die to differentiate it from the other die in use. A set of four dice of different colors is included in *ASL* Module 1: *BEYOND VALOR*. A white die and one of the colored dice are rolled simultaneously and summed normally for most purposes, but occasionally the colored dr will take on added significance either by itself or in comparison to the white dr. Players may also find it beneficial to get in the habit of rolling three dice, and using the third colored die as an automatic "subsequent dr" for any situation requiring one (such as 5.132, 7.309, 9.74, 11.13, 11.501, 24.1). The term "dr" refers to die roll while the term "DR" in all CAPITAL letters refers to Dice Roll. The term *Original* DR/dr refers to one before the addition of modifiers; *Final* DR/dr refers to a DR/dr after the addition of all modifiers.

A.2 ERRORS: All results stand once play has progressed past the point of commission. In other words, if an error is discovered after play has passed that point, the game cannot be backed up to correct the error, even if such error is in violation of a rule.[1] For example, assume an attack is resolved without the application of a proper DRM, and a subsequent attack is resolved, or another unit moved, or play proceeds to another phase before a player remembers he was entitled to a DRM in the previous attack, thus changing the result. His failure to apply that DRM at the time of commission has cost him his right to claim that DRM. Or perhaps a player moves a unit before remembering that he wanted other units to attempt to Rally in the RPh or fire or entrench in the PFPh. Once the Phase for execution of a particular action has passed, the player has lost any claim to that capability.

A.3 MOVE/ADVANCE: Whenever a rule refers to a non-vehicular unit's *inability to move*, it refers only to movement in the MPh. If a unit's advance capability during the APh is also restricted, the rule will specifically prohibit *both* movement and advance.

A.4 OPTIONAL RULES: Rule cases preceded by an asterisk increase realism at a heavy price in playability. Players may consider such rules optional and agree on their use prior to play. Players are encouraged to use all non-optional rules to preserve the integrity of the *ASL* game system as a whole. Omission of any non-optional rule could have adverse consequences on both play balance and design validity.

A.5 ATTACK DRM: Whenever an attack is made against multiple defending units, if a modifier applies to some but not all of the defending units, that attack is made with only one DR by applying the appropriate DRM only to those units—thus getting two or more Final DR from the same Original DR. Conversely, whenever an attack is made by multiple attacking units/weapons, if a modifier applies to some, but not all, of the attacking units, it applies to the attack only if detrimental to the attacker. This often advocates the breaking up of a FG into separate attacks—not all of which are so penalized.

A.6 IN/INTO: Depression hexes have the capability of containing units at both ground level (Crest status) and at the bottom of the Depression (i.e., not in Crest status). Rules referring specifically to the bottom of a Depression hex use the words IN/INTO with all CAPITAL letters as opposed to normal usage with lower case letters. A unit *IN* a Depression is at the bottom of it, but one *in* a Depression is in Crest status in it.

A.7 GOOD ORDER: This term refers to a Personnel unit/inherent crew which is not broken, berserk, captured, stunned, shocked, or held in Melee. A unit can be pinned, CX, TI, and/or unarmed and still be considered in "Good Order". When used in regard to a SW it refers to a SW which is fully manned by a Good Order Personnel unit and is not malfunctioned or restricted by Ammunition Shortages.

A.8 ADJACENT: Hexes (and the units inside them) are "adjacent" if they share a common hexside. Locations (and the units in them) are considered "ADJACENT" only if there is a LOS (excluding SMOKE Hindrance DRM and NVR—E1.101) between the two Locations and a player could conceivably move a hypothetical Infantry unit from that Location into the adjacent Location in question during the APh, ignoring any enemy presence. The word "ADJACENT" will be printed in all CAPITAL letters when this added restriction is necessary so as to differentiate from the more common usage with lower case letters.

A.9 RANDOM SELECTION: Whenever an event occurs calling for the Random Selection of one or more units in a hex, a dr is made for each such unit therein. The unit with the highest dr is the one affected by that event. If there is a tie for the highest dr, all of the applicable units which rolled that number are affected equally. The process can be speeded up by the application of assorted "House Rules" of the player's choice. We recommend using four dice of different hues to resolve Random Selection with a single DR. The lightest colored dr applies to the top applicable unit in any stack, the next darkest to the next applicable unit in the stack, etc.

EX: A leader, crew, HS, and squad are stacked in that order from top to bottom in a hex which has just been attacked on the IFT yielding a K/l result (7.302). The Random Selection dice are thrown and result in a white 3, a green 1, a red 2, and a black 3. As a result, the leader is wounded and the squad Reduced to a HS. The crew and *both* HS suffer a 1MC.

Random Selection among concealed units *[EXC: Sniper Concealed Targets (14.23)]* to select which units are revealed must include a dr for every counter beneath the top "?" counter in a stack; any Dummy unit selected is eliminated and the Random Selection process continues using the next lower dr of the same DR until a non-Dummy unit is revealed. If a SW is picked to be revealed, reveal its possessor instead. If the SW is unpossessed, use the next lower dr of the Random Selection DR.

A.10 LEADERSHIP DRM (Δ): Leadership modifiers, which are usually negative, permit a leader to direct certain fire attacks or actions with improved chances of success. However, leadership ratings do not modify the DR/dr of certain actions/weapons/types of attack. These are identified by a triangle symbol "Δ" on their counter, pertinent result tables, or rules.

A.11 PERMANENT BREAKDOWN: When a weapon uses a form of fire which increases its Breakdown frequency by decreasing the B#/X# (Sustained Fire, Inexperienced Personnel [19.32], Ammunition Shortage, Intensive Fire, Captured Weapons, unqualified crews [21.13]), it also transforms the weapon's Original B# to an X# during that use. Multiple causes of Breakdown frequency increase are cumulative.

© 2000 Multi-Man Publishing, LLC

EX: A German LMG with a malfunction rating of B12 uses Sustained Fire. During that attack it has a malfunction rating of B10 and X12. If its Original IFT DR is 10 or 11 the weapon malfunctions; if it is a 12 the weapon is permanently removed. If an American unit were using Sustained Fire with the captured LMG, it would have a B8/X12 rating.





A.12 WHITE COUNTERS: All counters printed on a white background can be used by any nationality and are often informational or memory devices only. Those printed in a color other than black on a white background are color-keyed to be automatically flipped over or removed at the end of the phase represented by that color on the Sequence of Play Chart *[EXC: Target Acquisition counters]*. For example, Pin counters (which are red on white) are removed at the end of each CCPh.

A.13 ATTACKER/DEFENDER: These terms, when printed in all CAPITAL letters, each refer to one of the two players. The ATTACKER is the player whose Player Turn is currently being played and is therefore capable of movement. The other player is the DEFENDER.

A.14-.14B COLLATERAL ATTACKS: See D.8-.8B

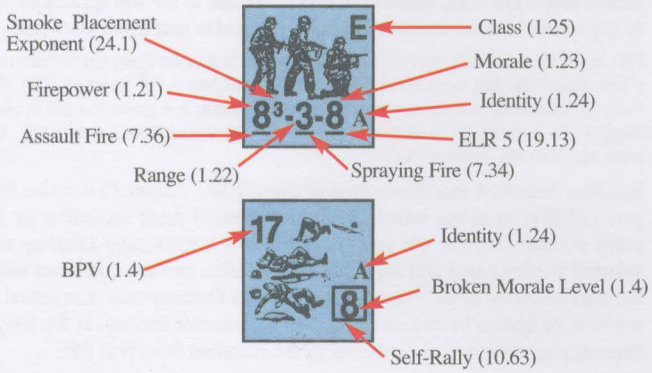
A.15 FIRST/FINAL FIRE: Even though Defensive First Fire occurs during the MPh and Defensive Final Fire usually occurs during the DFPh, qualifying units may fire in both without violating the general rule that no unit can fire in more than one phase per Player Turn (7.1).

EX: A 4-6-7 squad firing during the opponent's MPh as Defensive First Fire may still fire in its own DFPh at adjacent or same-hex units as Defensive Final Fire (provided it is not already marked with a Final Fire counter *[EXC: FPF; 8.31]*). An AFV firing its CMG as Defensive First Fire may still fire its MA in its DFPh; if it changed its CA to fire the CMG, the appropriate Case A DRM would still apply to its MA shot (D3.51).

A.16 SMOKE: The term SMOKE when spelled completely in CAPITAL letters refers to an artificial LOS Hindrance caused by any chemical agent or Blaze and therefore refers collectively to both Smoke and WP types.

A.17 DRM: Unless the rules specifically state otherwise, all applicable DRM or drm are cumulative.

A.18 MORALE LEVEL CEILING: Regardless of circumstances, a unit's Morale Level can *never* be increased beyond 10. This is true even if the unit is Fanatic, heroic, with a Commissar, and/or part of a Human Wave.



1. PERSONNEL COUNTERS

1.1 There are two kinds of Personnel counters with several varieties of each. The values of each unit will vary from one nationality to another and are listed on the National Capabilities Chart (A25).





1.11 SINGLE-MAN COUNTER (SMC): SMC are *elite [EXC: Partisans]* units which bear a single silhouette and represent just one man. There are two types of SMC: leader and hero. Each is described in detail later.

1.12 MULTI-MAN COUNTERS (MMC): MMC are units which bear the silhouette of more than one man and represent a number of men who perform as a group. There are three types of MMC: squad, HS, and crew. A vehicle's *inherent crew* is not a MMC until it leaves the vehicle and takes the form of a counter.



1.121 SQUAD: A squad counter bears the silhouette of three men, and for game purposes represents approximately ten men, although historically the squad might range in size from seven to 15 men (depending upon nationality, date, and circumstances). Each nationality has at least three types of squads *[EXC: Partisans]* defined as either Elite, First Line, Second Line, Green, or Conscript.



1.122 HALF-SQUAD (HS): A HS counter bears the silhouette of two men and represents roughly five men who perform as a group. A HS comes into play when a squad is Reduced or Deploys into two HS. A broken HS has a printed Morale Level one < that assigned to a broken squad of the same Class and nationality *[EXC: Japanese elite and 1st line HS have the same broken Morale Level as a squad]*.



1.123 CREW: A crew counter bears the silhouette of two kneeling men and represents roughly five men with special training who perform as a group to operate special weapon counters. A crew also represents picked men who are the best of their company regardless of their Morale Level as evidenced by their Self-Rally capability (10.63). As such, *Infantry* crew counters are always considered elite troops with a printed Morale Level equal to that of their nationality's Good Order elite squads as well as FP and Range factors of two. This Strength Factor serves to differentiate Infantry crew counters from dismounted *vehicular* (and thus non-elite) crew counters (D5.1).

1.2 MMC CAPABILITIES: Each MMC and hero counter contains a three-digit hyphenated number called its Strength Factor which quantifies its capabilities in the game.

1.21 FIREPOWER (FP): The leftmost number of the Strength Factor represents the FP it can attack with in combat prior to any modification. The numerical exponent listed after the FP number on some squad types is the Smoke Placement Exponent (24.1). If the FP number is underlined, the unit may use the Assault FP bonus (7.36) during its AFPh. Leaders, although Armed, have no inherent FP.

1.22 RANGE: The middle number of the Strength Factor is the number of hexes away from the hex occupied by that unit which it can reach with its FP under normal conditions (hereafter referred to as Normal Range).[2] The range to a target is always the least number of hexes from the firing hex to the target hex (inclusive of only the latter), regardless of the actual number of hexes crossed by the LOS. If the Range number is underlined, the unit may use the Spraying Fire Option (7.34). Leaders have no Normal Range.

1.23 MORALE: The third number of the Strength Factor is the relative rating of a unit's ability to withstand punishment before "breaking". This Morale Level is the point at which its will to survive overcomes discipline and, consequently, the player's control over the unit. When this point is exceeded during a MC the unit is flipped over to its broken side (see 10.4). If the Morale Number is underlined, the unit is given an ELR of 5 and if subject to ELR failure (19.13) is either Replaced by two broken HS (if a squad) or Disrupted (if a HS) *[EXC: SSR-defined units; 19.132]*.

1.24 IDENTITY: A *letter* follows the Strength Factor of each squad or HS to provide a means of distinguishing it from similar units. Crews are identified by a *numeral* above the silhouette. A corresponding alpha-numeric symbol is also listed on the back (broken) side of each unit.

1.25 CLASS: Every Squad/HS contains a letter or number in the upper right-hand corner which defines its Class, ranging in descending order from: E (Elite), 1 (1st Line), 2 (2nd Line), G (Green), to C (Conscript). Occasionally a circle or square encases the letter/number to differentiate between different types of the same Class (see A25: National Capabilities Chart). These Classes are important in that they affect a unit's capabilities and also determine what units can be substituted for them during Deployment, ELR Replacement, or Battle Hardening.

1.3 COMPONENT PARTS: Whenever a squad must be replaced by one or two HS, the component HS must be the corresponding HS for that

© 2000 Multi-Man Publishing, LLC

Class and type as listed on the A25 chart and represented by the same Class/type symbol. Any excess FP, Range, or Morale lost in the exchange are forfeit due to the lessened confidence and efficiency of a split squad.

1.31 DEPLOYMENT: A Good Order squad with a Good Order leader in the same Location may attempt, in their RPh, to split into two equal HS by having that squad pass a leader-modified NTC *[EXC: Finns (25.7), Guards, Carrier HS, unarmed units (20.5), and U.S.M.C. 7-6-8s do not require leader direction to Deploy]*. A leader may attempt to Deploy only one Good Order squad in that Location per RPh, and a squad may be subject to only one Deployment attempt per RPh (see also Setup Limitations; 2.9). A squad's possessions can be freely rearranged among its HS when Deployed. Regardless of the outcome, neither leader nor squad may attempt any other action in that RPh.

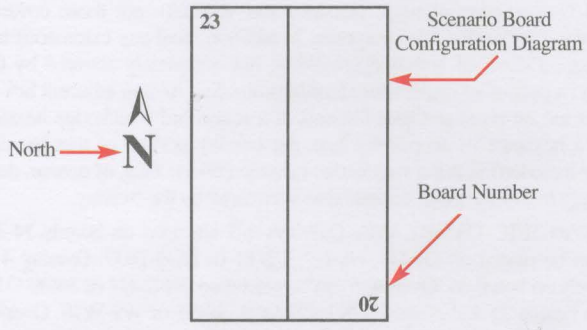
1.32 RECOMBINE: Any two Good Order HS of the same nationality with an identical Strength Factor may automatically Recombine as their sole action in that RPh into a squad of the same type and Class at the start of any RPh in which they occupy the same Location and terrain (see 2.8) with a friendly Good Order leader *[EXC: Finns, Guards, Carrier HS and unarmed HS do not need leader presence to Recombine]*. A Fanatic HS and non-Fanatic HS may Recombine, but the resulting Squad is not Fanatic. The sole activity of that leader during the RPh is to permit the Recombination of any eligible HS in his Location.



1.4 BROKEN SIDE: The reverse of each Personnel unit *[EXC: Hero (15.2); Japanese squads (G1.1) and leaders (G1.41)]* is its broken side. A broken unit has one (leader), two (HS/crew), or three (squad) prone or kneeling silhouettes to identify its size. The large number in the lower right-hand corner is its broken Morale Level (see 10.4). If the broken Morale Level is encased in a square that unit is capable of Self-Rally (10.63). The smaller number in the upper left-hand corner is its Basic Point Value (BPV) for Battlefield Integrity and DYO uses. Broken units have no FP or Normal Range.

1.5 SPECIAL STATUS: In addition to the capabilities given to an Infantry counter by its Strength Factor, a SSR or DYO purchase can specify that certain counters have unique capabilities due to their specialized role (H1.22-.24).

1.6 UNIT SIZE NUMBER (US#): Each unit has an inherent Unit Size Number which approximates its relative size in terms of bulk, number of men, and/or difficulty to conceal which is used for certain rules (Concealment, 12.12; Guarding Prisoners, 20.5; Set DC, 23.7). Personnel units have a US# equal to the number of silhouettes on their counter (SMC: 1; Crew/HS: 2; Squad: 3). Horses and all other $^{5}/_{8}$" counters have a US# of 4 as do their Riders or attendant crews *[EXC: Any vehicle or Gun classified as large or very large (red ★, AF, or M#) has a US# of 5]*.



2. THE MAPBOARD

2.1 BOARD CONFIGURATION: The mapboard consists of all specified board sections depicted in the scenario Board Configuration Diagram, butted together to form one playing surface. Each of the separate board sections is geomorphic and can be butted together with others in many ways to form different playing areas. The corner of each board depiction in the Diagram contains a board number that corresponds to the yellow board number printed in hex B8 of each board, and indicates precisely how each board should be positioned. The letter N and an accompanying arrow on the Diagram indicate North with respect to the mapboard. Superimposed over the mapboard is a hexagonal grid used to measure movement/range to an abstracted scale of 40 meters per hex. Each hexagon contains a specific type of terrain which affects movement and attacks in or through that hex, as well as a white dot (or square) which marks the center of the hex. As most attacks are measured from center of hex to center of hex, these dots are usually the reference points for determining LOS.

2.2 GRID COORDINATES: Each hex contains its own identifying grid coordinate. A grid coordinate is composed of the board number, hex row letter, and hex number within that hex row. Whenever two boards are butted together, the half-hexes of each board edge combine to form an entire hex. If only one of these half-hexes contains a grid coordinate, use that grid coordinate to refer to the combined hex. If neither or both hexes contain a printed grid coordinate, the hex derives its board number and row letter from the northeastern most board of those two in the mapboard configuration. The row position number would be either 0 or 10 depending on the coordinate of the adjacent hex in the identifying row. If such combined hexes contain two hex center dots, the dot used is the one belonging to the board used to designate the composite hex. If no hex center dot is visible in a composite hex, the hex center must be estimated. If it is necessary to pinpoint a vertical level (other than the ground level) within a hex, a lower case "h" (for height) should be suffixed to the coordinate, along with the elevation level of the Location within the hex. A unit inside an entrenchment or pillbox (rather than just in the same hex) should be noted by the suffix "En" or "Pi". A unit in a Wire or Bridge hex should be noted by recording "Wire/" or "Bridge/" before the coordinate if beneath the Wire or Bridge counter; otherwise, it is considered on top of the counter. A unit that is a Passenger or Rider is noted by the suffix "P" or "R" and the name and ID of the vehicle conveying it. A unit in Crest or HD status adds a suffix consisting of "/CR" or "/HD" and the grid coordinate of the hex which the center of that Crest/HD counter faces. In some instances, a record should also indicate the CA of a unit within a hex; this can be added merely by suffixing "ca x/y" where x/y defines the hexspine of the CA. When stating Bypass Movement, the first of the two coordinates (or three in the case of a Vertex) given is always the hex actually being passed through (EX: Bypass in F3 along the F3-E3 hexside is always expressed as F3-E3; not E3-F3).

EX: 1E4h1 refers to the first level of the building in 1E4. 1E4h-1 refers to the sewer level beneath the building in 1E4. 1E4caD3/D4 refers to a unit at ground level in 1E4 with a CA centered on the hexspine which is the D3-D4 hexside.

2.3 HALF-HEXES: Mapboard edge half-hexes not butted together to form a full hex are still playable and have the same effect as full hexes. Units allowed to set up anywhere on a given board may set up on that board's half-hexes only if the half-hex is either part of another board on which it is also allowed to set up or is not butted against another half-hex. Similarly, occupation of a board's half-hexes will satisfy occupation of that board for any applicable Victory Conditions only if they are not butted against other non-qualifying half-hexes. In the rare instance in which an Open Ground half-hex is butted together with another terrain type half-hex, the combined hex is considered that non-Open Ground terrain type.

2.4 CUMULATIVE TERRAIN EFFECTS: Terrain effects and movement costs of hexes containing more than one terrain feature (such as 2I9) are cumulative unless specified otherwise by the rules governing the involved terrain types.



EX: Barring use of Bypass movement, it costs Infantry four MF to enter hex 2I9, and Small Arms Fire into that target hex will be modified by a +3 DRM to the IFT DR regardless of which hexside is crossed.

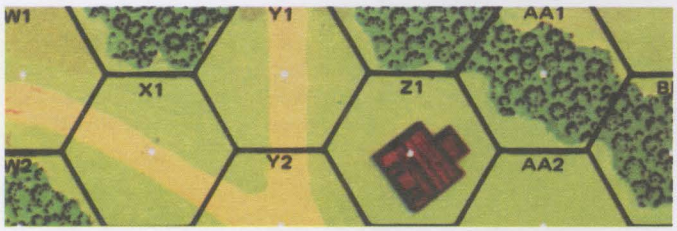
© 2000 Multi-Man Publishing, LLC

2.5 ENTRY: All forces scheduled to arrive on a certain turn must enter the mapboard on that turn—although if capable of movement in the APh, entry may be delayed until then. If entry was to have been via a certain hex, but that hex is unenterable due to being occupied by an enemy unit during the friendly MPh (see 4.14), or is otherwise blocked by rubble or Blaze (even if the rubble or Blaze is not in that particular hex but does cut it off from the remainder of the board), entry must be made in a non-obstructed hex within four hexes of the scheduled entry point, but one Game Turn later. If all hexes are still obstructed, the radius of permissible entry is extended another four hexes in both directions at a cost of another turn's delay, and so on. However, delayed entry is never voluntary and can never be used to appear on the other side of a river/canal instead of the side originally scheduled.

2.51 OFFBOARD SETUP: Units designated by a scenario as having to enter the mapboard (rather than setting up on it) must still be set up offboard on the turn of entry as the first act of the RPh of that Player Turn. This is done by placing any randomly chosen unused board(s) adjacent to the mapboard edge(s) the ATTACKER's units are to enter. The offboard player then places all forces scheduled to arrive during that turn on any *whole hex(es)*. If only part of a board is in play, only the actual road hexes on the unused portion are "off board" road hexes. Fire and LOS between the mapboard and any setup board is not allowed (including the overlapping Blast Area of a FFE). However, offboard units may move normally on the offboard map so as to enter the mapboard on a hex which is not adjacent to the one they set up in, provided they were not scheduled to enter via a specified hex which is not blocked. All terrain on an offboard setup map is considered Open Ground except for off-map half-hexes which are butted against a half-hex of some other terrain type and hex rows Y, Q, and I which are road hexes if the board is butted lengthwise. If the board is butted widthwise, all offboard hexes with a coordinate of 5 are considered road hexes. Roads share the same status as the majority of on-board roads of the adjacent board (i.e., paved, plowed, or muddy). Entrance of an offboard setup hex on the way to entering the mapboard always costs the standard Open Ground MF/MP rate per hex (or standard road movement rate if on a road) except where scenario weather conditions increase the cost of such basic movement.

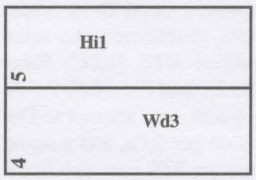
2.52 OFFBOARD ACTIONS: No action is allowed by units offboard awaiting entry *[EXC: An off-board squad capable of Deployment may attempt to Deploy in its RPh if stacked with a leader; see Setup Limitations (2.9)]*. However, SW/ordnance may start dismantled/limbered, and an AFV may start CE or BU. Vehicles may start loaded up to their normal capacity and are assumed to be in Motion (D2.4). Units setting up on-board have these same options except that on-board vehicles may not set up in Motion unless so stated by SSR.

2.6 EXIT: Units may leave the mapboard using normal MPh/APh capabilities from any mapboard edge hex or half-hex as if they are entering an imaginary off-board hex which is the mirror image of the one they currently occupy. Bypass can be claimed to exit a hex (such as 2X0) only if the unit has one additional MF/MP in excess of that needed for Bypass.



EX: Mapboard exit of 2Y1 can be done at the road movement rate, but mapboard exit of W1 must be done at the Open Ground rate. Vehicular mapboard exit of AA1 can only be done if the vehicle had actually paid to enter the AA1 woods obstacle and then pays to enter another woods obstacle offboard or to enter BB0 and exit at the Open Ground rate. A squad in X1 wishing to exit the mapboard directly through X0 can use Bypass (one MF) to reach vertex X0-W1-(non-existent) W0 from where it can expend the required one excess MF to exit the mapboard in Open Ground through the mirror image of W1.

The mapboard cannot be left during the RtPh. Units which leave the mapboard *[EXC: glider contents (E8.5); paratroops (E9.41)]* may not return.



2.7 OVERLAYS: A scenario may require the modification of a mapboard prior to play by the placement of an overlay on that board in a specific location. Such a placement will be mentioned by SSR and indicated on the Scenario Board Configuration diagram.

2.71 CUTTING OUT OVERLAYS: Overlays have been provided in a number of products, including *WEST OF ALAMEIN*, *CODE OF BUSHIDO*, *GUNG HO!*, *CROIX DE GUERRE*, *DOOMED BATTALIONS*, *ACTION PACK #2*, and Deluxe overlays in *ANNUAL 95w* (with Deluxe replacements in The GENERAL, Vol. 30 #3). See rules section F12 for cutting out the overlays provided in WEST OF ALAMEIN, section G.9A for cutting out overlays 1-5 in *CODE OF BUSHIDO*, and G13.14 for cutting out Effluent overlays in *GUNG HO!*. For other overlays, cut each one $^1/_8$" outside of its exterior hexside (approximately to the tip of its partial hexspines).

2.72 Most overlays contain no hex coordinates, but the front of each multi-hex overlay contains a small "1" in one hex and a small "2" in an adjacent hex; these numbers are used to orient the overlay on its board (see G13.1 for Beach and OCEAN overlays). Pressing a few small pieces of plastic adhesive (such as PLASTI-TAK© or PLAS-TIC©, which are usually available where office/school supplies are sold) onto the back of the overlay is an easy and effective method of attaching it to a board for the duration of a scenario. Alternatively, a sheet of appropriately sized plexiglass may be laid over the playing area after the overlays have been placed.

2.73 SSR PLACEMENT: When a SSR calls for the use of one or more overlays, it will specify the board on which it will go and, if a multi-hex overlay, will also list the coordinates of two adjacent hexes that determine the overlay's orientation. The first hex listed is covered by the overlay hex that contains the "1", and the second is covered by the overlay hex that contains the "2". If two or more overlays overlap—even if just along one of their exterior hexsides—each should be placed onboard in the order it is mentioned in the pertinent SSR. For single-hex overlays, the top of the alpha-numeric ID should be oriented with the grid coordinate of the hex. On the scenario card, the "board configuration" will contain the overlay's ID in its approximate placement location. When recording hex coordinates for hexes covered by an overlay, insert the letter "o" between the board number and the grid coordinate (e.g., 32oE7).

EX: A SSR states "Place Overlay H1 on 27H6-G7". The hex of Overlay H1 that contains the "1" is therefore placed over hex 27H6, and that containing the "2" is placed over hex G7.

2.74 Once positioned onboard, only the overlay's (or topmost overlay's, should two or more overlap) hexsides and vertices—not those covered over by it—matter for rules purposes. In addition, treat any extraneous terrain (e.g., a sliver of wall/hedge/building not completely covered by the overlay; a portion of brush/water terrain protruding into an adjacent hex of another terrain type) as Open Ground. If a mapboard wall/hedge hexside forms a hexspine of an overlay hex, the overlay portion of that hexside (vertex included) is still a wall/hedge hexside (B9.1). This, of course, does not apply to a wall/hedge hexside that is covered by the overlay.

2.75 SPECIFIC OVERLAYS: Overlays 1-3 are used on boards 34-37, and can be placed on D2-D1, N8-N9, T2-T1 or DD8-DD9. Overlay 4 is used only on board 34. Overlay 5 can be placed on 34K2-K1 or 34O9-O10, and on boards 35 and 37 on K2-K1, O9-O10, S2-S1 or W9-W10. Overlay E1 is used only on board 25. Overlays 4 and E1 must be placed on top of the hexes bearing the same grid coordinates. Overlay OW1 is specifically designed for use on 45K4-J4 but can be used elsewhere as well. See G13.1-.15 for Beach, OCEAN, Effluent, and Island overlays. The remaining overlays can be used almost anywhere on practically every board.

© 2000 Multi-Man Publishing, LLC



2.76 WADIS/STREAMS: If the "end-hex" of a wadi/stream overlay is adjacent to another wadi/stream (whether the latter is an overlay or not), or if two wadi/stream "end-hexes" (whether overlay hexes or not) are on different boards but are adjacent to each other, each hexside common to both such wadi/stream hexes is treated as a wadi/stream hexside (i.e., the two wadis/streams are treated as one continuous wadi/stream) except where a wadi/stream cliff is present *[EXC: for LOS/LOF purposes, that hexside is considered a wadi/stream hexside only if the LOS/LOF begins in/IN one of those two wadi/stream hexes and ends in/IN the other]*.

2.8 LOCATION: A hex may contain separate subdivisions within itself (i.e., units may occupy the same hex but still be in separate Locations within that hex). The most common application of this is when additional vertical levels exist within the horizontal dimensions of a hex. Thus sewers/tunnels/caves below ground level and/or upper building levels above ground level, a bridge, and/or a pillbox create additional Locations, each with their own stacking limits, entry costs, and confined space. Each hex contains one Location, unless a sewer, tunnel, cave, bridge, pillbox, or upper building level creates one or more additional Locations within that hex. A leader on one level cannot affect the performance of units on another level (i.e., a Crest leader cannot affect units IN a Depression). Even when additional vertical levels or a pillbox do not exist within a hex, units in the same hex can be subject to different movement costs or TEM due to occupation of different features within that hex. For example, units in an entrenchment or AFV are subject to different effects than other units which share the same Location, but are in different terrain features within that Location. Entrenchments and vehicles are not considered different Locations within the hex they occupy.

EX: A HS in an entrenchment with a leader may not Recombine with another HS outside that entrenchment but in the same hex, even though they are in the same Location. However, that same leader could assist the HS outside its entrenchment with any MC or Rally attempts it makes.

2.9 SETUP LIMITATIONS: A unit may not set up overstacked or in a hex it could not enter during the normal course of play, but vehicles can set up free of Bog/Immobilization in hexes whose entry might cause Bog. See D4.221 for the possibility of vehicles setting up in HD status. Infantry may always set up in Crest status (B20.9). No enemy stack (i.e., all units/SW/Guns/entrenchment-counters in a given Location) may be inspected prior to the start of play (see also 12.12 & 12.3). Up to 10% (FRU) of the squads that set up on-board, and up to 10% (FRU) of the squads that enter in a given turn, may be freely Deployed (without leader/TC) prior to setup, if the nationality is capable of Deployment.

3. BASIC SEQUENCE OF PLAY

Each Game Turn represents two minutes of actual time and consists of two Player Turns, each consisting of eight Phases. The player capable of movement in his Player Turn is termed the ATTACKER; his opponent is the DEFENDER. A basic Sequence of Play comprising a Game Turn is presented below, and a more detailed version is provided on the Advanced Sequence of Play (ASOP) divider.

3.1 RALLY PHASE (RPh): Both players may attempt to repair weapons, rally broken units, etc. Each unit may attempt only one type of action in a RPh.

EX: If a squad rallies during its RPh, it may not attempt to Deploy in the same RPh (even if directed by a different leader).

3.2 PREP FIRE PHASE (PFPh): The ATTACKER may fire SMOKE with ordnance/OBA, fire any of his units capable of fire, designate Opportunity Firers, or perform labor tasks. Place a Prep Fire counter on those units which fire, a Bounding Fire counter on Opportunity Firers, and a TI counter on those units which perform labor tasks.

3.3 MOVEMENT PHASE (MPh): The ATTACKER may move any units capable of movement which, during the PFPh neither fired, nor became marked for Opportunity Fire, nor attempted a labor task. Units are subject to the effect of the DEFENDER's First Fire as they move. The DEFENDER places a First Fire counter on any of his units which fire unless it retains a Multiple ROF (9.2).

3.4 DEFENSIVE FIRE PHASE (DFPh): The DEFENDER may fire any of his units that are capable of fire, and not yet marked with a First Fire counter at any enemy units currently within their LOS. He places a Final Fire counter on any of his units which fire. He may also fire those units marked with a First Fire counter, but only at adjacent enemy units and only under the constraints of Final Fire. Flip their First Fire markers over to the Final Fire side as they fire. Remove all First and Final Fire counters at the end of this phase.

3.5 ADVANCING FIRE PHASE (AFPh): The ATTACKER's units which did not fire in the PFPh or attempt to perform a task requiring TI status may fire at half FP (see C.4 for ordnance/vehicular fire) *[EXC: FT/MOL/DC (22-23) and Opportunity Firers (7.25) attack at full strength]*. Remove all Prep Fire and Bounding Fire counters at the end of this phase.

3.6 ROUT PHASE (RtPh): Broken units of both sides may seek cover, with the ATTACKER routing his units first (10.5). Units need not rout unless ADJACENT to an unbroken, Known enemy unit *[EXC: Passengers; D6.1]*, or if in Open Ground and in the LOS and Normal Range of a Known enemy unit.

3.7 ADVANCE PHASE (APh): The ATTACKER may move any of his Infantry units capable of movement (4.7) one hex (even if the hex moved into is currently occupied by enemy units) or he may change Location within his current hex. A unit may never change Location within a hex *and* enter a new hex in the same APh.

3.8 CLOSE COMBAT PHASE (CCPh): Units of both sides occupying the same Location resolve their CC attacks; any survivors which have not withdrawn are considered in Melee. The ATTACKER places a "?" counter on any of his eligible unconcealed units as per 12.12-.122. Remove all TI/Pin counters. Flip CC counters over to Melee side or remove them.

TURN RECORD CHART — Only one Player Turn (German) in last Game Turn

RUSSIAN Sets Up First / GERMAN Moves First [150]	1	2	3	4	5	6	END

TURN TURN

3.9 TURN RECORD CHART: Step 3.8 ends the ATTACKER's Player Turn. The previous DEFENDER now becomes the ATTACKER, inverts the Turn counter on the Turn Record Chart, and repeats steps 3.1—3.8. At that point one complete Game Turn is finished and the Turn Counter is reinverted and advanced one box on the Scenario Turn Record Chart. When the Turn Counter is placed on the "END" box, the scenario is over. *[EXC: If a Scenario Turn Record Chart has numbered turn boxes beyond the "END" box, then the scenario does not end; the Turn counter must advance off the end of the Turn Record Chart, back to the beginning, and then on to the "END" box again before the scenario ends.]* If a Turn number and "END" are printed in gray instead of black those turns and consequently the end of the game are provisional based on some occurrence specified by a SSR. If a Turn box is halved diagonally and printed in red it indicates that only the first side to move has a Player Turn during that Game Turn. Other symbology or numbers appearing in a Turn box are reminders to check for reinforcements or the application of a SSR for the indicated side during that Game Turn.

© 2000 Multi-Man Publishing, LLC

4. INFANTRY MOVEMENT

[Players should check the Index for definitions of "Infantry" and "Personnel" before proceeding further.]

4.1 BASIC MPh: During his MPh, the ATTACKER may move all, some, or none of his Infantry units provided they did not fire during the PFPh and are neither broken, TI, designated to use Opportunity Fire, nor held in Melee. Infantry can be moved in any direction or combination of directions up to the limit of their movement allotment, which is measured in Movement Factors. Infantry units may move over and stack on top of other friendly units, although their ability to do so with enemy units during the MPh is restricted to a few specific cases (see 4.14). Each unit's movement allotment may be increased, decreased, or restricted by certain circumstances.

4.11 MOVEMENT FACTOR (MF): Every Good Order MMC has a four MF allotment *[EXC:, three if Inexperienced]* and every Good Order SMC has a six MF allotment with which to move in its MPh *[EXC: The MF allotment of a SMC is reduced to four MF if it mounts, rides, or dismounts any form of conveyance during that Player Turn. Wounded SMC (17.2) and Inexperienced Infantry have their MF allotment increased to four MF if they mount, ride, or dismount any conveyance during that Player Turn]*. A MF bonus of one can be earned for road movement (see B3.4). A MF cannot be transferred between units nor can it be accumulated from turn to turn. All Personnel and Horse-Drawn transport use MF as opposed to vehicular counters which use Movement Points (MP).

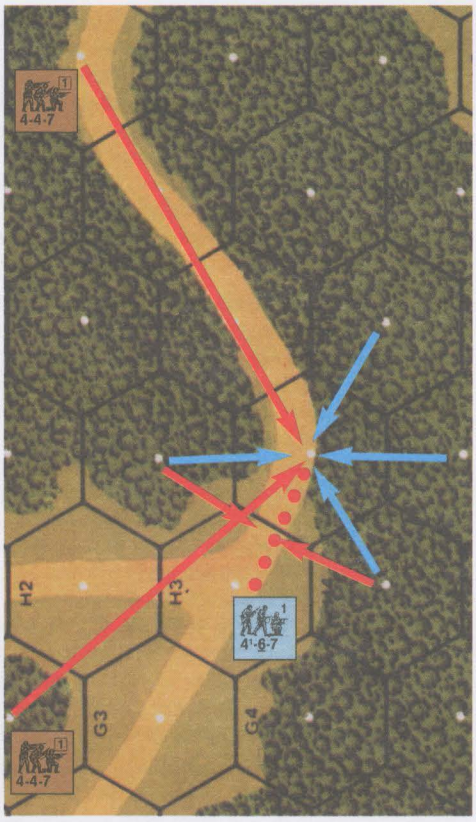
4.12 LEADER BONUS: Any Good Order MMC which begins and ends the MPh/APh stacked with a leader of the same nationality in the same Location, at the same level (2.8), and with the same wire/entrenchment/panji/paddy status is eligible for a two MF bonus during that MPh/APh, provided it moves with that leader in a combined stack and does not expend any of its MF to mount, ride, or dismount any form of conveyance. Bonus MF are always the last to be expended by a moving unit.

4.13 TERRAIN EFFECTS: Whenever Infantry moves into a hex during the MPh, it expends MF for that turn equal to the cost of the terrain within that hex as listed on the Infantry column of the MF Entrance Cost portion of the Terrain Chart/Desert Terrain Chart/PTO Terrain Chart, unless using Bypass movement.

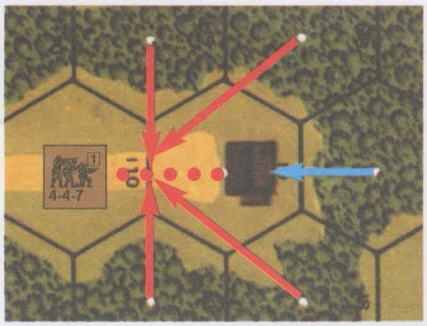
4.131 HEXSIDE COSTS: Certain types of terrain depictions conform to hexsides. When crossing such a hexside to enter a new hex, an Infantry unit pays a specified number of MF for crossing that hexside *plus* the Cost of Terrain (COT) of the hex entered.

4.132 ROAD: Infantry entering a hex via a road hexside must pay either the road entry cost or the cost of other terrain in the hex. Road movement costs for Infantry are not cumulative with that of other terrain in the same hex (except for SMOKE). If Infantry pays the cost of other terrain in the hex, it is considered in that terrain and avoids FFMO DRM unless that other terrain is Open Ground. If any LOS Hindrance (such as SMOKE) or Artificial Terrain (such as AFV/wreck) is present, FFMO is negated even though the unit uses Road movement. Otherwise, if it pays only the road entry cost, it is subject to FFMO DRM (4.6) in that hex if the LOS can be traced to *either* of the two target points (a/b below) in that hex without crossing an obstruction in that hex. If the target enters at the road rate, the firer has the option of tracing LOS to either: a) the hex center dot, or b) the point where the hexside crossed intersects the road used. If the LOS to one target point is blocked, the firer can still fire at the other with no additional penalty. (See Examples at right.)

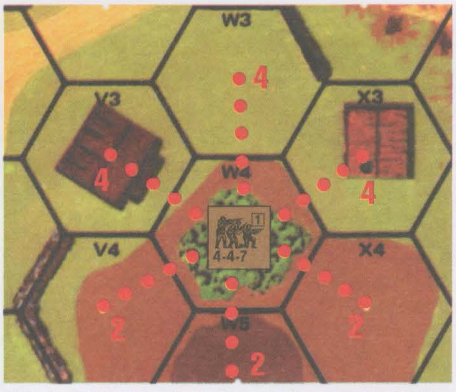
4.133 ELEVATION CHANGE: The MF cost for Infantry, Cavalry, and Horse-Drawn transport entering many terrain types is doubled while moving into a new hex one level higher than that previously occupied (see B.2). There is no penalty for moving along the same level of high elevation hexes, nor is there a lessened cost for moving from higher to lower elevations *[EXC: bicycles (D15.81), skis (E4.31)]*. There is no penalty for moving to a lower elevation hex except in the case of Abrupt Elevation Changes (B10.5l) and Ground Snow (E3.723). (See Example at right.)



4.132 EX: A squad entering 5I4 at a cost of one MF would be subject to a -1 TEM for fire from G2, J3, K3, or L2 if the squad used Assault Movement, or a -2 TEM if it did not; there would be no woods TEM. However, if the squad entered I4 at a cost of two MF without using Assault Movement, only the FFNAM (-1) and Woods TEM (+1) would apply (cumulatively). Fire from I5 or J4 to I4 (represented by the blue arrows) would never receive the -1 FFMO DRM because it must trace its LOS through the Woods depiction in I4. Fire from H4 or I3 would qualify for the -1 FFMO DRM (red arrows) only if the unit entered I4 at the one MF rate across the H3-I4 hexside, because otherwise it would have to trace its LOS through the woods depiction in I4 (blue arrows).



Similarly, Infantry could use the road in 5I10 to enter the building in I9 at a cost of one MF but if it did, it would be subject to the FFMO DRM (and no building TEM) for fire from any adjacent hex (except I8, whose LOS cannot reach either the hex center dot or any point on the road depiction of the I9-I10 hexside without first encountering the building obstacle).



4.133 EX: Hex 3W4 costs two MF to enter from hexes V4, W5 or X4. It costs four MF to enter from V3, W3 or X3 because the unit is moving to a higher elevation.

4.134 MINIMUM MOVE: An Infantry unit retaining at least one MF after deducting for portage costs exceeding its IPC, may make a Minimum Move of one hex during its MPh, even if CX or lacking the MF to pay the full entry cost of the hex *[EXC: Infantry pushing a Gun or loading/unloading may never Minimum Move]*. After a unit has entered a hex by Minimum Move and undergone all First Fire, all unbroken survivors become both pinned and CX (even if CX previously). If the entry cost of a hex is defined as "all" of a unit's MF and there is still yet another cost to be paid beyond that, a Mini-

© 2000 Multi-Man Publishing, LLC

mum Move can still be made. However, a Minimum Move cannot be made to enter terrain whose entrance cost is listed as NA (Not Allowed). In any case, the unit is considered to have spent the actual MF cost of entry.

EX: A CX Russian squad with a HMG in 3W3 (see previous illustration) lacks the necessary four MF to enter W4, but may do so anyway by claiming a Minimum Move and becoming both CX and pinned. Consider it to have spent 4 MF.

EX: It takes all of a unit's MF to enter Marsh, but if entering it from a lower level hex (e.g. from 13J5 to K5) it would cost two times all of its MF and therefore could be entered only as a Minimum Move. An Inexperienced MMC would have spent 6 MF, while a SMC would have spent 12 MF.

4.14 ENEMY UNITS: Infantry may not move into the same Location containing an unconcealed enemy unit during the MPh *[EXC: Berserk (15.43), Human Wave (25.23), Disrupted (19.12), Unarmed (20.54), and Infantry OVR (4.15)]*, but may do so during the APh. However, PRC (7.211, D6.5) and charging Cavalry (13.61) can dismount in such a hex during the MPh.

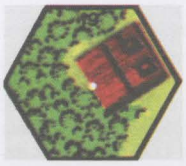
4.15 INFANTRY OVR:[3] An Infantry MMC may enter in the MPh a Location containing only one Known enemy SMC (unless that SMC occupies an AFV) at double the total MF cost of entry provided it has passed a NTC to enable it to enter the Location *[EXC: Berserk (15.432)]*. A leader may exempt all MMC he is stacked with and moves with from that NTC by passing it himself but if he fails, no unit in his stack may attempt a NTC individually nor may any of those units move or take any other action during that phase (10.1). A unit may take its NTC at any time during its MPh prior to entering the enemy Location (or in the enemy Location in the case of entry of a Location containing only a concealed SMC), but must add a DRM equal to the TEM (and any applicable LOS Hindrance in—not between—that Location such as SMOKE, grain, or orchard) of the enemy-occupied Location it wishes to enter (hexside TEM apply only if the present LOS crosses that hexside). If other (concealed) units are in the same Location, 12.15 would apply. More than one SMC must be revealed to deny a Location to an enemy MMC capable of OVR. Other MMC could attempt subsequent Infantry OVR attacks but each would require a separate NTC.

4.151 SMC OPTIONS: The SMC being OVR has two options if in Good Order. It may attack the moving units on the IFT normally (non-heroic leaders with no SW have no such FP) with PBF/TPBF as applicable, and then, if the MMC is in the SMC's Location, engage in immediate CC during that MPh; *or* the SMC may immediately, prior to any Defensive First Fire vs the ATTACKER, enter (free of all enemy fire) into any adjacent Accessible Location of the ATTACKER's choice which is not occupied by an enemy unit. The ATTACKER may not force the SMC into a minefield, FFE, Wire, or Open Ground hex if an alternate choice is available as the ATTACKER's MMC enters its hex. If the SMC is broken, pinned, already held in Melee, TI, occupying a vehicle, or otherwise incapable of movement it does not have this movement option, and its attack options are restricted as befits its status. This movement or attack option can be used by the same SMC again during that MPh if it is OVR by Infantry again, provided it is not now held in Melee.

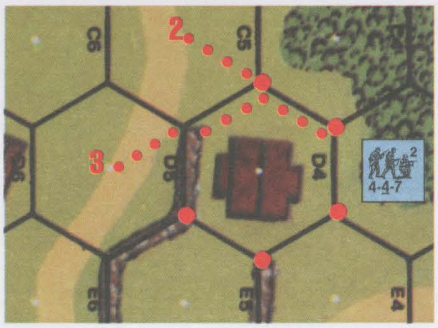
4.152 CC: If, after Defensive First Fire, the SMC remains in its Location with the entering MMC, normal CC immediately ensues during that MPh. Should the SMC be eliminated or captured, the OVR unit(s) which defeated it may continue their MPh from that Location with any remaining MF allotment. Other units which have not already ended their MPh may then also transit the Location during that MPh. Should the SMC survive this initial CC, it and the OVR units are considered in Melee, marked with a Melee counter, and subject to CC again in that Location in that turn's CCPh. Should another MMC attempt to OVR it while the SMC is in Melee, that MMC may attack it in CC (even though the SMC has already been attacked during that MPh and may not attack back in that MPh) but only the newly arriving attacking unit(s) is eligible to continue movement with any remaining MF in that MPh if successful.

4.2 MECHANICS OF MOVEMENT: Whenever a player moves a unit during his MPh he states aloud the MF expended by that unit in entering each hex or in performing any other activity within its current hex. If the unit is going to end its MPh there it must state so before moving another unit. The player is not allowed to take the unit back to a previously occupied hex and begin again *[EXC: If a unit's move is illegal, either player may cite the illegal move and demand the move be retraced from the last legally entered hex unless another unit has moved, fired, or performed any other action in the interim]*. Once a unit moves, stops, and another unit moves, the original unit may move no farther during that MPh. Infantry may be moved one unit at a time unless berserk (15.43), in Column (E11.52), or a MMC is using bonus MF gained by being part of a Human Wave (25.23), or moving with a leader, or gaining added TEM (D9.31) for moving with an AFV. Otherwise, units may choose to move together as a stack at their own risk and may break up the stack during the MPh to continue to move separately but all members of that moving stack must end their MPh before another unit not in that stack may move.[4] Units moving as a stack expend MF simultaneously and need not spend MF for the same purpose, but must designate at the same time all actions for the same MF.

4.3 BYPASS: Bypass enables unbroken Infantry to move through a building/woods hex without entering the obstacle in that hex (and consequently having to pay the two MF cost of actually entering a building or woods), whenever that obstacle does not physically touch the hexside being Bypassed. Bypass cannot be used to skirt the edges of any other terrain feature (including gully-woods), nor an obstacle that is Ablaze or contains an armed non-Disrupted (19.12) Known enemy unit. Hexes containing rubble or Wire cannot be Bypassed. A hexside forming a part of a Wire Location, or covered by a Water Obstacle (24L9-M9), may not be Bypassed (B26.44) on either side of the hexside; roadblocks also have Bypass restrictions (B29.4). SMOKE does not prevent Bypass but adds to the MF cost (24.7) of transit through the hex. Bypass may be used in a mined woods/building hex but does not prevent mine attacks. Use of Bypass movement does not prevent placement of a DC (23.3) or SMOKE grenade (24.1). Bypass must be announced with the expenditure of MF as the unit moves inside the building/woods hex. A unit that decides to occupy an obstacle it is currently Bypassing must pay the entire in-hex MF cost to enter that obstacle even though it is already in the hex.



4.31 The movement cost of Bypass becomes that of the other terrain in the Location—usually one MF for Open Ground or two MF to enter higher elevation Open Ground. *[EXC: The building in building-woods hex 2I9 can be Bypassed along the I9-J9/I9-J8 Open Ground hexsides at a cost of one MF, or along two of its four woods hexsides at a cost of two MF (for moving around the building through the woods), rather than paying the normal entry cost of four MF for the hex.]* Bypass may consist of one or two contiguous unblocked hexsides of the building or woods hex being traversed. Bypass may exceed two contiguous unblocked hexsides per hex, but in so doing the Bypass cost for that hex is doubled. Remember that the unit is moving *around* the obstacle within



EX: The squad in 2D3 may Bypass D4 by moving in D4 along the D4-C4 and D4-C5 hexsides at a cost of one MF. However, it will cost the squad two additional MF to enter D5 because of the wall hexside, whereas it will cost only one MF to enter C5 even though the wall hexside extends to the D4-C5-D5 vertex. The squad cannot move into any hex other than C5 or D5 at this point during its MPh, unless it expends another MF for continued Bypass to D4-D5-E5 or D4-E4-E5; however. it can enter the building in D4 by expending two more MF.

© 2000 Multi-Man Publishing, LLC

the hex—not through it. Should there be any question whether a building or woods symbol touches a hexside, Bypass in that hex is blocked (i.e., is not allowed) along that hexside. Walls and hedges are considered extensions of hexsides for purposes of applying the mechanics of this rule; therefore if a wall/hedge depiction touches a building/woods depiction, bypass is blocked along that hexside.

4.32 BROKEN IN BYPASS: Infantry that voluntarily ends its MPh in an obstacle hex must pay the full MF cost of that obstacle unless it entered at the road movement rate (4.132); Infantry may not voluntarily end its move using Bypass. If the unit breaks while using Bypass, it remains in the open portion of the obstacle hex until the end of its MPh and is subject to the FFNAM (and usually also FFMO) DRM for multi-hex movement in the open for additional First Fire attacks made against it to or through the hexsides it traversed during that MPh. The broken unit and all portaged equipment are assumed to be in the obstacle during and after Final Fire.

4.33 PINNED IN BYPASS: Any Infantry unit that becomes pinned, or involuntarily stranded (24.1), while using Bypass is assumed to be in the non-obstacle portion of the obstacle hex for the remainder of its MPh. After its MPh it is considered in the obstacle itself and entitled to its protective TEM for all subsequent fire. Concealed enemy units in the Location lose that status (12.151) at the end of the moving unit's MPh.

4.34 BYPASS LOS: Infantry using Bypass are subject to special terrain modifiers and LOS rules. A unit firing at a Bypassing unit does not have to trace its LOS to the target hex center, but has the option to make its one allowed LOS check per attack to either hex vertex along a hexside traversed by a unit moving in Bypass (thus a choice of two vertices for one hexside Bypass, three vertices for two hexsides Bypassed, etc.) instead. Should the LOS of a firing unit reach an Open Ground Bypass hexside vertex unobstructed (see also C.5), that unit can claim a LOS and a First Fire -2 DRM for non-Assault Movement in the open. A wall or hedge in the target hex is *not an obstacle to LOS* even though the target may be in Bypass on the other side of that same target hex (although its TEM would apply if crossed by the LOS). If the firer traces his LOS to the hex center, it must cross a bypassed hexside (thus usually qualifying for a -2 DRM for Non-Assault Movement in Open Ground) before reaching that hex center or the LOS is blocked. If a unit is using Bypass (including VBM) along a Crest Line, and the obstacle it is Bypassing is on the higher level of that Crest Line, then the unit is also at that higher level (since a Crest Line itself cannot be Bypassed; 4.3).

EX: Using the previous example, the squad Bypassing 2D4, one can examine a variety of First Fire opportunities against it. As the squad enters D4, it must declare which side of the building it is moving around. If it declares hexsides D4-C4, D4-C5 it can be fired on from C7 with a -2 DRM for FFNAM/FFMO by tracing a LOS from C7 to either the D4-C4-D3 or the D4-C4-C5 Bypass hexside vertices. If it declares D4-E4, D4-E5, however, it is out of LOS from C7 at the D4-D3-E4 vertex because that vertex cannot be seen through the building in D4. The firer can trace its LOF to the D4-E4-E5, D4-D5-E5, or the D4-C5-D5 vertices but the FFMO DRM will not apply due to the wall TEM activated by the LOS crossing the wall at D4-D5. The wall TEM will also apply to the fire directly along a wall hexspine (B9.3) such as that from C5 to the D4-D5-E5 vertex.

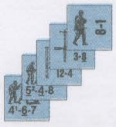
4.4 PORTAGE: A SW may not move by itself; it must be carried or placed on a vehicle by Infantry/Cavalry at some cost to the latter's MF allotment. The various SW portage costs are listed on each SW counter in the form "#PP". Portage cost is assessed per item carried, not distance traveled; even if a unit carries a SW during only one MF expenditure before dropping it, that unit may not recoup the portage cost used for that SW for use in the remainder of its MPh. Otherwise, an unbroken Infantry unit can pick up and drop items at any point in its move provided it has sufficient MF to do so (subject to 4.431 & 4.44). No item can be portaged more than once per phase except as allowed by combined Infantry and vehicle portage within a single phase.

4.41 AFPh SW FIRE LIMITS: No MMG, HMG, mortar, INF/RCL SW, or $^5/_8$" non-vehicular ordnance counter which moved [other than being Recovered (4.44)] during the MPh may fire during the ensuing AFPh *[EXC: German dm MMG/HMG may fire as LMG; 9.8]*. However, if such weapons remained stationary while their new owners moved into their Location, they can be fired during the ensuing AFPh with the normal penalties for fire in the AFPh—assuming they were Recovered during that MPh (4.44). A weapon fired during the AFPh cannot use Intensive Fire and is limited to one shot regardless of its ROF *[EXC: if using Opportunity Fire; 7.25]*.

4.42 INHERENT PORTAGE CAPACITY (IPC): A MMC has an IPC of three PP, and a SMC has an IPC of one PP.[5] An Infantry unit loses one MF for each PP carried in excess of its IPC. A SMC may never portage more than two PP although one SMC can add its IPC to that of any one Good Order Infantry unit to increase the IPC of the latter, provided the two units start the phase together and move together as a stack. Otherwise, Infantry units may not combine their IPC. A broken unit may not portage anything in excess of its IPC (see 10.4) even if accompanied by a leader.

EX: A squad carrying four PP has only three MF left to expend in the MPh, but if accompanied by a leader that same squad has six MF remaining to use in the MPh (unless the leader carries a PP of his own in which case they have five MF left to expend in their MPh).

4.43 POSSESSION: All SW/Gun counters belong to the first Personnel unit stacked beneath them. A SW/Gun must be possessed (i.e., on top of a Personnel unit) to be fired or portaged (or pushed). A unit can possess any number of SW/Guns. If a unit breaks and rallies in the same Location, possession of its own SW/Gun is always retained. An *unbroken* unit may drop possession of a SW/Gun at no MF cost during its MPh (and thus need not actually move), APh, or at the start of a CCPh (11.21) in order to Withdraw from Melee.[6] If a unit drops possession of a SW/Gun at the start of an allowed phase prior to expending-MF/advancing/Withdrawing, that SW/Gun is assumed to have been unpossessed (and hence not portaged by that unit) at the start of that phase. Units also drop SW/Guns before they surrender or are captured (20.4), and sometimes before they can rout (10.4). Unpossessed SW in a marsh, shallow or deep stream, and unpossessed SW/Gun in any Water Obstacle, Blaze Location (or burning vehicle), or building Location when rubbled are removed from play.



EX: A stack consists of a leader, a LMG, a PSK, and two squads in order from top to bottom. Both SW belong to the 5-4-8 even though it must forfeit its inherent FP to fire both of them that turn.

4.431 TRANSFER: Stacks may be freely rearranged to change possession of SW/Guns—but in all cases only between different Good Order unpinned units in the same Location *[EXC: Wire (B26.4); Panji (G9.52); NA between Crest-status units and units IN a Depression]*, and only during a RPh, at the start of their APh, or as a result of the creation of a sub-unit from a MMC. When a Personnel unit drops possession (4.43), is eliminated/surrenders, or routs and cannot carry away its SW, its SW/Gun is left unattended in the same Location as per 4.32 or on the same vehicle *[EXC: Rider Bailing Out (inclusive of D6.24, D15.46, D15.53)]*, and must be Recovered to be possessed. Transfer/Recovery of a SW/Gun on a vehicle *in Motion* can be achieved only by Passenger(s)/Rider(s) of that vehicle who likewise can only Transfer/Recover a SW/Gun which is on that Motion vehicle.

4.44 RECOVERY: Infantry may claim possession of an unpossessed SW/Gun at the start of any RPh as their sole action during that RPh, provided they make a Recovery Final dr < 6 (Δ). Infantry may also Recover an unpossessed SW/Gun during their MPh on a Final dr < 6 (Δ) after an expenditure of one extra MF (limit of one attempt per unit per SW or Gun per MPh), even if they attempted Recovery in the RPh. Only a SMC can Recover a SW/Gun possessed by a friendly *broken* unit, and does this by rolling a Recovery Final dr of < 6 (Δ) in its RPh/MPh without need of MF expenditure; if a unit surrenders, is eliminated, or routs away and cannot carry its SW, an Infantry SMC can immediately Recover one of that Infantry unit's SW/Guns in this same manner but regardless of phase. In all cases, a Recovery attempt is allowed only by an unpinned, Good Order non-Bypassing unit in the same Location as the SW/Gun but that is not in the same Location as an armed, Known enemy unit *[EXC: Wire (B26.4); Panji (G9.52); Recovery of a SW/Gun IN a Depression is NA by a Crest status unit and vice versa]*. A SW/Gun cannot be Transferred in the same phase it is Recovered. Recovery drm include +1 if CX and +1 at night. See G.5 for jungle/kunai/bamboo. See "SW Recovery" in the index for other PRC Transfer/Recovery capabilities.

© 2000 Multi-Man Publishing, LLC

4.5 DOUBLE TIME: Any Infantry (including bicyclists/skiers) capable of movement and neither broken, wounded, nor CX, may Double Time by its owner announcing the option at the *start* of its MPh and placing a CX (4.51) counter on the unit. Double Time increases the MF allotment of Infantry by two. *[EXC: Double Time can be announced after a unit has expended MF, but doing so increases the unit's MF by only one while incurring the same penalties.]* A Double Timing leader (and any units accompanying him) have eight MF—the highest possible allotment for Infantry *[EXC: Only seven MF if Conscript Personnel; one extra MF is possible if the entire move is along a road; B3.4]*. Double Time does not allow any additional movement when entering a Location whose cost of entry is "all". Double Time may not be used by a unit that will mount, ride, or dismount any form of conveyance during that Player Turn, or that will attempt to move beneath a Wire counter (B26.46).



4.51 COUNTER EXHAUSTION (CX): CX units must add one to any labor task or attack DR they make or direct (+1 to To Hit DR for ordnance; +1 to IFT DR for all others). CX units must add one to any inherent SW (ATMM, MOL, PF) or SMOKE Grenade Availability Check dr they make. CX units must also add one to any CC attack they make, and deduct one from any CC attack made against them. CX units must add one to their Search/Recovery dr (12.152; 4.44), and Ambush Status dr (11.4), and may not advance into Difficult Terrain (4.72). A unit's CX counter is removed if the unit breaks; or in its next Player Turn as soon as it: has completed all of its Prep Fire, or is designated as an Opportunity Firer, or moves (unless due to a Minimum Move or Deep Stream Entry it becomes CX again), or becomes TI; or at the conclusion of its next MPh—whichever comes first. A CX counter is removed at the start of a MPh and does not affect that unit during that MPh other than prohibiting its use of Double Time during that MPh.

4.52 PORTAGE EFFECTS: CX Infantry have an IPC one < normal. Each PP carried in excess of this reduced IPC is deducted directly from their increased MF allotment.

EX: A squad carrying four PP has only three MF because four PP is one > a squad's IPC. However, if that squad Double Times, its MF allotment is increased to four (4 MF + 2 MF [CX] - 2 MF [2 PP > CX IPC] = 4).

EX: A HS carrying five PP has only two MF; if accompanied by a leader, they would have five MF (4.12, 4.42). If the HS (only) Double Times with the leader, they have six MF. However, if the leader also Double Times, then they have only five MF.

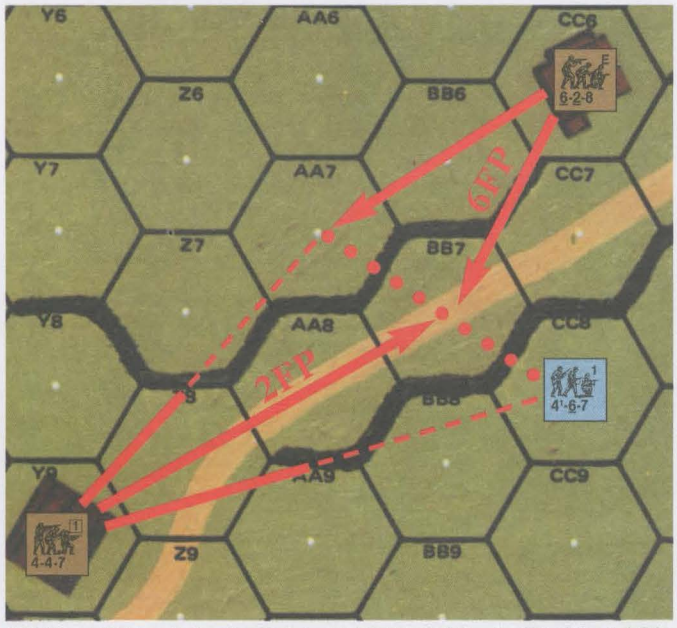
4.6 MOVEMENT MODIFIERS (FFMO/FFNAM): Infantry that has moved during the MPh without using Assault (or Hazardous) Movement is subject to a -1 FFNAM DRM to all Defensive First Fire attacks against it in addition to the applicable TEM of its Location *[EXC: Minefield attacks and units moving from one trench to another]*. Units loading onto/disembarking from vehicles are always subject to FFNAM except vs mines. A further -1 First Fire DRM applies to units moving in the open (FFMO), but whenever such movement is combined with another effective protective TEM or LOS Hindrance feature (such as SMOKE or an AFV/wreck) between the target and firer or in the target Location itself, the -1 FFMO DRM does not apply.

4.61 ASSAULT MOVEMENT: Non-berserk Infantry that remains Infantry throughout the MPh (i.e., is not a PRC during that phase), and that moves ≤ one Location during its MPh *without using all of its MF* (including any leader/road bonus, but not Double Time), may use Assault Movement. *[EXC: additional MF expenditure within a Location (e.g., out of, or into, a Fortification, or Recovery) in addition to a change of Location, does not prevent Assault Movement unless, in so doing, a unit expends all its MF or requires CX status.]* A unit using Assault Movement in Open Ground is subject to the -1 FFMO DRM but not to the -1 FFNAM DRM. Assault Movement, if it is to be used, must be declared prior to movement of that unit, and is not applicable to Infantry using Hazardous Movement (4.62) or to Cavalry. A unit using Assault Movement which uses all its MF to move beneath Wire (B26.4), or which breaks, or becomes berserk, due to Defensive First Fire is no longer considered using Assault Movement and is subject to the -1 FFNAM DRM for the remainder of *its* MPh. Otherwise, once declared, Assault Movement cannot be voluntarily voided.

EX: [1] A crew moving ≥ two hexes into a woods hex and subject to First Fire has a total TEM of 0 (+1 for woods and -1 for FFNAM). [2] A SMC using Assault Movement to move one hex into Open Ground has a total TEM of -1 for incoming First Fire. [3] A HS Assault Moving behind a hedge in Open Ground receives a +1 TEM (+1 for hedge), but a unit moving behind a hedge in Open Ground without Assault Movement receives a 0 DRM to incoming First Fire (+1 for hedge, and -1 for FFNAM) [4] A squad moving one hex uphill into woods has a TEM of 0 (+1 for woods, and -1 for FFNAM due to using all its MF). If the same unit is accompanied by a leader, giving it six MF, the TEM is +1 because it can claim (if it was declared) Assault Movement. [5] PRC abandoning an AFV in Open Ground (D5.41) have a TEM of 0 (+1 for being beneath an AFV and -1 for FFNAM).

4.62 HAZARDOUS MOVEMENT: Certain activities are so dangerous that they automatically incur a -2 IFT DRM to any attacks against units so engaged *regardless of fire phase* until they are pinned (if subject to Pin results). Neither FFMO nor FFNAM apply to shots affected by Hazardous Movement; however, Hazardous Movement is cumulative with all other terrain DRM. Hazardous Movement acts include: pushing a Gun; Flame, roadblock, or rubble Clearance; descending paratroops; Fording; preparing Set DC; Climbing; and sewer movement. Hazardous Movement never applies to vehicles (but does apply to PRC Survival; D5.6, D6.9).

4.63 DASH: Infantry may declare a Dash through a road Location if it declares a Dash move prior to moving, and then moves from a non-Open Ground Location on one side of the road directly into the road and then directly into a non-Open Ground Location on the other side of the road provided the normal MF expenditure for this two-hex move is ≤ the unit's available MF. For purposes of determining the legality of a Dash move, any Location out of the LOS of a firer is also considered a non-Open Ground Location. The Dashing unit may not have expended any MF prior to the Dash *[EXC: SMOKE grenade placement attempt; 24.1]*, may expend no MF in the road or the Dashed-to location beyond the minimum required to enter, and must end its MPh in the non-Open



EX: The 4-6-7 has declared a Dash to 4AA7, thus halving the FP of the 4-4-7 in Y9 which fires on it in BB7. However, a 6-2-8 hidden in CC6 now drops its HIP to fire on the 4-6-7 in BB7 or AA7. The halving FP of a Dash does not apply to the 6-2-8 because AA7 is Open Ground to it. Even if the 4-4-7 were to fire after the 6-2-8, its FP would still be halved because AA7 and CC8 are not Open Ground Locations vs fire from Y9. Even if AA7 were a building hex, an attack by the 6-2-8 vs AA7 would not be halved because the 4-6-7 is Dashing only in BB7—not in the hex it is moving *to*. None of this would change if the road ended in BB7, or if there were another road running from AA7 to CC8.

EX: Assume AA7 were a building hex and that a leader was Dashing with the 4-6-7. If the leader broke in BB7, the 4-6-7 could declare Double Time and continue Dashing into AA7. If for any reason the 4-6-7 did not have enough MF to enter either AA7 or BB6, it would be stuck in BB7 without Dash benefits.

© 2000 Multi-Man Publishing, LLC

Ground Location it Dashed to (unless it becomes berserk, pinned, broken or wounded in the road Location, or otherwise unable to enter the Dashed-to Location, in which case Dash benefits immediately cease). All non-ordnance Defensive First Fire vs a Dashing unit in the road Location is considered Area Fire except for Fire Lanes and pre-existing Residual FP, but FFMO/FFNAM DRM apply normally. A weapon with a specified CA may not fire on a Dashing unit in the road Location if it must change its CA to do so. An ordnance weapon that can fire on the Dashing unit in the road Location must use the Case J To Hit DRM (Cases J[3] and J[4] do not apply in the road Location). If blocked from entering a non-Open Ground Location by a concealed unit therein (12.15), the unit is considered to have expended the additional MF used in entering the non-Open Ground Location in the road Location instead, where it ends its MPh and is again subject to possible Defensive First Fire—this time without the applicable Dash penalties to the firer.

Because the existence of an Open Ground Location can be dependent on the LOS of any potential firer into that Location, it is possible that a declared Dash might not qualify as such vs one or more DEFENDING units. In this case, Dash First-Fire penalties may apply to some DEFENDERS but not to others. Once a Dash is declared, no other movement/MF-expenditure options are available to the Dashing unit and Armored Assault (D9.31) is NA.

4.7 ADVANCE PHASE: Infantry units which are neither broken, pinned, TI, nor marked with a CC counter may use the APh to move one hex horizontally or *vertically (to a different ADJACENT building level Location of the same hex)* but not both. A unit may not change both its Location within a hex and also the hex it is in during the same APh although it could change both elevation and hex in an APh by advancing to an adjacent hex of different elevation such as a hill or Depression. The one hex advance may even be from inside an entrenchment to inside another in an Accessible hex (even if on different levels). A unit's IPC is unchanged during the APh except as restricted by Difficult Terrain (4.72).

4.71 vs AN AFV: An Infantry advance into a Location containing an enemy AFV is contingent on the unit first passing a PAATC (11.6).

4.72 vs DIFFICULT TERRAIN: An advance into any hex whose MF cost (excluding SMOKE) is ≥ four MF or all of a unit's available non-Double Time MF allotment (whichever is less) may not be made if the unit is already CX *[EXC: Climbing, B11.432; Deep Stream Entry, B20.43]*; otherwise it may advance but becomes CX in the process. In no case may a unit advance if it retains no MF after deducting for portage costs.

EX: A Russian squad carrying five PP has only two MF and therefore must become CX to advance into a hex requiring two MF to enter during the MPh (unless it is accompanied by a leader who adds two MF and one IPC to the squad; thereby leaving it with five MF).



4.8 TEMPORARILY IMMOBILIZED (TI): TI status is incurred by Infantry engaged in various tasks requiring prolonged effort throughout the Player Turn. When a unit is affected by TI status it is marked by placing a TI counter on top of it, which is removed at the end of its CCPh (or if the unit breaks). A TI unit may not move, advance, fire, or perform other labor tasks anytime during its Player Turn. If engaged in CC, it must add +1 to any CC attack DR it is involved in (limit of one per attack), and subtract one from any CC attack DR made against it (A.5).

EX: If two TI squads combine to make a CC attack, there is a +1 DRM to that attack. If two TI units and a non-TI unit are attacked together in CC, the -1 DRM for TI status applies only to the TI units; the DR is not modified for the non-TI unit.

5. STACKING LIMITS

5.1 INFANTRY/CAVALRY: Each side may stack up to three squads or their equivalents (5.5) plus up to four SMC per Location without penalty. Hexes which have additional vertical Locations within their horizontal hex parameters are entitled to their own separate stacking limits on each level of that hex. Stacking limits can be exceeded only at increased risk and inconvenience to all of the friendly units therein, and never during initial or offboard setup.

5.11 MOVEMENT: Entrance of a Location overstacked by Personnel (even if overstacked only due to the moving unit's entry) costs one additional MF for each squad (or its equivalent; FRU) in the Location that exceeds normal Personnel stacking limits. Vehicles must pay one MP for each overstacked squad or equivalent (FRU), in addition to any overstacking movement cost for vehicles (D2.14). Personnel movement into a Location overstacked by vehicles is not penalized. Overstacking movement penalties can cause use of Minimum Move (4.134) or Advance vs Difficult Terrain (4.72).

EX: There are two squads and a crew in building hex 1F5. If a squad moves into 1F5, it will cost three MF (two to enter the building, plus one to enter a now overstacked Location). If another squad advances into the same Location, it will have to become CX because the MF cost of the Location is now four MF (two to enter the building, plus two to enter a Location overstacked by $1\frac{1}{2}$ squads). A single HS/crew entering the Location at this time will also incur only a two MF overstack penalty because its entrance increases the overstack to only two squads.

5.12 ATTACK PENALTY: All units attacking from or within a Location which their side has currently overstacked must add one to their IFT/CC DR (or +1 to their To Hit DR for ordnance) for each vehicle and squad equivalent (FRU) by which they exceed normal stacking limits.

5.13 DEFENSE PENALTIES: Overstacking penalties during the MPh apply only to moving units, although the presence of non-moving units in the target Location will probably be the determining factor in whether a moving unit is overstacked at the instant of attack.

5.131 PERSONNEL: All Personnel units (except PRC) being attacked in a Location their side has overstacked suffer a -1 To Hit DRM when attacked by ordnance (or a -1 IFT/CC DRM when attacked by any other means) for each squad equivalent (FRU) by which their side exceeds normal Personnel stacking limits.

5.132 VEHICULAR: If a vehicle is being attacked in a Location whose *vehicular* stacking limits its side has exceeded, it is not directly penalized. However, any Vehicle Target Type Final To Hit DR which exceeds its Modified To Hit Number (C3.3) by < the amount of vehicles in that hex (excluding any out of the firer's LOS, wrecks, and the firer itself if in the same hex) may still possibly hit another (even friendly) vehicle in that vehicular-overstacked hex. Make a subsequent dr; if that dr is < the total number of vehicles in that hex other than the firer, wrecks, or vehicles out of the firer's LOS, one of them has been hit (use Random Selection if three or more targets exist therein—modifying each vehicle's dr by the reverse of its size modifier if they have different size classifications and randomly select among ties). A Specific Collateral Attack would apply normally. Overstacking penalties do not apply to attacks resolved on the ★ Vehicle line of the IFT.

EX: A PzKpfw IVH tank and two Kuebelwagens occupy woods hex 1EE4. The tank is fired on by a Russian AT Gun in Z9 during the Russian PFPh at a range of eight hexes for a Modified To Hit Number of 8. Only the +1 TEM of the woods will affect the DR, resulting in a hit on the tank with an Original To Hit DR ≤ 7. However, an Original To Hit DR of 8 or 9 will hit one of the Kuebelwagens instead on a subsequent dr < 3.

5.2 VEHICULAR: Each side may have only one vehicle in each Location without suffering overstacking penalties. The presence of a wreck(s) in a hex does not affect stacking penalties.

5.3 PRC: Many vehicles have the capacity to transport Personnel in various quantities as specified on the vehicular counter. In addition, some AFV after 1942 may carry Riders (see D6.2). PRC and their SW are placed on top of the transporting vehicular counter and do not count against Personnel Location stacking limits as long as they remain mounted on their transport. PRC may never overstack on their vehicles.

© 2000 Multi-Man Publishing, LLC

5.4 COMBINED ARMS: The presence of a vehicle(s) in a hex does not alter Personnel stacking limits. There is no stacking limit for ordnance or SW, although the number of crews/HS which may function as Gun crews in a Location (5.5) limit the effective use of Guns in a Location to three.

5.5 EQUIVALENTS: Five SMC equal a HS, and two crews/HS equal a squad, but ≤ 4 SMC count as zero squad-equivalents. However, if an Infantry crew/HS is manning a Gun it is considered equal to a squad for stacking purposes.[7] A squad's equivalent can be substituted for a squad which has been given special capabilities by a SSR so as to share those special capabilities (e.g., if a SSR specifies that a squad may set up hidden, two hidden HS can be used instead provided that nationality is allowed to Deploy HS).

5.6 LOCATION RESTRICTIONS: Although a Location containing a pillbox/entrenchment can be overstacked, the pillbox/entrenchments therein can never be overstacked; i.e., they can hold only their specified amount of Infantry per side. Similarly, a sewer or tunnel may never contain > three squads (plus four SMC) or their equivalent per side.

6. LINE OF SIGHT (LOS)

6.1 CHECKING LOS: The ability of a unit to "see" and "fire directly" at another unit in a different hex is dependent on having a LOS between those units. Whether a unit has a LOS to a given hex is usually determined by stretching a sewing thread taut between the center of the firing hex and the center of the target hex. If the thread does not cross a terrain depiction capable of obstructing the LOS between the target and firing hexes *(with the obstruction visible on both sides of the thread) [EXC: Inherent Terrain hexes (B.6) block or hinder LOS if traced exactly along their hexside even though the terrain depiction is not visible on both sides of the thread]*, there is a clear LOS between the two hexes. If players still cannot agree whether a LOS is blocked or not, the matter is resolved by a dr: 1-3 LOS is not blocked; 4-6 it is blocked. It is usually (but not always; see B.6 & B9.1) the terrain depiction which can potentially block or hinder LOS—not the hex containing that terrain type.

6.11 LOS CHECKS: Before setup, LOS may be checked only by the side setting up first, and only if that side is the Scenario Defender, or has Pre-Registered Fire (C1.73) or Bore-Sighted weapons (C6.41-.42). During play, neither player may make potential LOS checks to determine if a LOS exists for an attack until after that attack has been declared *[EXC: Concealment Removal (12.14), Road entry cost (4.132)]*. Should the LOS check for an attack reveal a blocked LOS, the units which were to have made the attack are still considered to have fired for all purposes (they thought they saw something); that fire would not generate DM status nor affect units in the obstacle that blocked the LOS, although a DR must still be made to check for possible Random Events and the retention of any Multiple ROF.

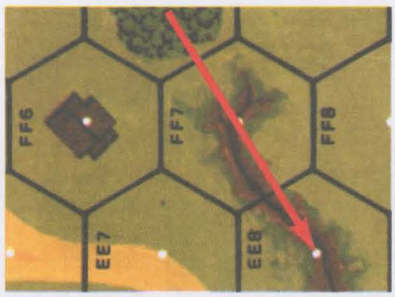
6.12 ATYPICAL LOS: Occasionally, the rules will specify that an entire hexside, part of a hexside, or a vertex be used for tracing LOS to/from a firer/target instead of the hex center dot. This occurs during Road use (4.132), Bypass (4.34, D2.32), Climbing (B11.42), Underbelly Hits (D4.3), Snap Shot (8.15), and movement between Rowhouses (B23.71).

6.2 OBSTACLES: Each terrain type *[EXC: Depressions 6.3]* is defined as to whether or not it presents an obstacle or Hindrance to LOS and, if an obstacle, the height of that obstacle. LOS extends into or out of obstacles, but not through them into hexes beyond the obstacle except in certain cases wherein the target/firer are at an elevation ≥ the height of the obstacle or are adjacent to a hexside obstacle. The terrain in a firer's hex never blocks LOS traced from its hex center dot, although it may block LOS traced from a vertex of its hex across the interior of its own hex.

EX: Woods are a level 1 obstacle to LOS. If the firing unit is beneath level 1, it cannot see through ground-level woods to a target hex at level 1 or lower. The target unit would have to be at an elevation > the top of the obstacle to possibly establish a LOS to a hex at ground level beyond that obstacle.

6.21 HALF-LEVEL OBSTACLES: Any terrain feature defined as a half-level obstacle blocks all same-level LOS *through (not into or out of)* that terrain hex. Half-level obstacles never form Blind Hexes nor block LOS to/from a higher level Location.

6.3 DEPRESSIONS: Certain terrain types are defined as being relatively narrow slits carved into the surface below ground level. Although they present no obstacle to LOS between units at or above ground level, units IN Depressions are often out of LOS of even relatively nearby higher level units. A unit must be at least one level higher for every hex of range to units IN a Depression to have a LOS to them *[EXC: Units with a clear LOS between them through other continuous Depression hexsides (exclusive of vertices) need not count those intervening Depression hexes in determining the necessary elevation advantage]*. A unit in a ground level hex always has a LOS INTO an adjacent level -1 Depression hex, but a unit two hexes away must be at level 1 or higher to have a LOS INTO that hex, and a unit three hexes away must be at level 2 or higher. Boards 24 and 25 contain Depressions that change elevation along their length, thus creating several additional LOS possibilities; see B19.5.



EX: A unit in 5FF6 cannot see INTO EE8 because it is two hexes away with only a 1 one level elevation advantage. However, a unit in GG7 can see INTO EE8 because it has a LOS INTO Depression hex FF7 and then along the Depression depiction INTO EE8, whereas FF6 cannot trace a straight LOS INTO an adjacent Depression hex, and then on INTO EE8.

6.4 BLIND HEXES: Assuming an otherwise clear LOS, even if a firing (or target) unit is at an elevation > the height equivalent of any intervening full level obstacle, a number of potential target hexes that are both directly behind that obstacle and also equal to the *full level* height equivalent (i.e., ignoring any half-level) of that obstacle are considered Blind Hexes to the firer. Blind Hexes cannot be seen by the firer unless the Blind Hex is at an elevation ≥ the full-level height of the obstacle (in which case it is not a "Blind" Hex after all). This "blind" area can increase as the range to the obstacle increases (6.41), and/or decrease according to the extent of elevation advantage over the obstacle (6.42).

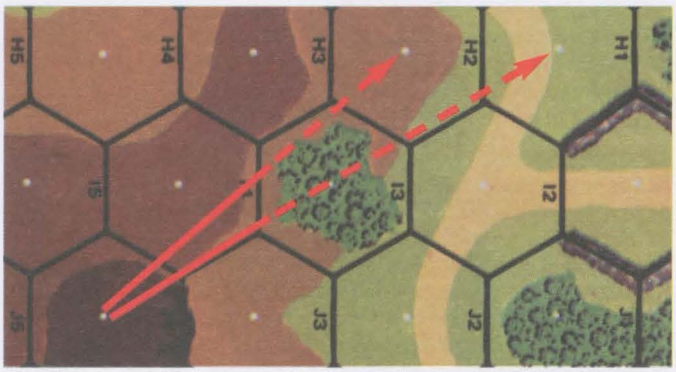
6.41 For every multiple of five hexes (FRD) to a full level obstacle, increase by one the number of Blind Hexes created by that obstacle.

6.42 For every full-level elevation advantage > one level over an obstacle, decrease the number of Blind Hexes created by that obstacle by one, to a minimum of one *[EXC: non-Cliff Crest Lines may have their Blind Hexes reduced to none by sufficient elevation advantage; B10.23]*.

EX: The distance to a level 1½ obstacle is 12 hexes. Three blind hexes (1 [normal Blind Hex; 6.4] +2 [extra Blind Hexes; 6.41]) are created by that obstacle for a unit at level 2; two blind hexes are created by that obstacle for units at level 3 at the same range; and only one blind hex is created by that obstacle for a unit at level 4 or higher at that range.

6.43 The number of Blind Hexes created by an obstacle can be changed by the height of the hexes directly behind the obstacle along the LOS. If a hex behind an obstacle is at a lower level than the elevation *of the hex containing the obstacle* (not the obstacle itself), the difference in elevation of those two hexes is added to the number of Blind Hexes which are created by that obstacle to determine if that hex behind the obstacle is actually a Blind Hex. However, if the Blind Hex is created solely by a Crest Line (B10.23), only any difference > one is added since a difference of one level is necessary for a Crest Line to even exist. If a hex behind an obstacle is at a higher level than the elevation of the hex containing the obstacle, the difference in elevation of those two hexes is *subtracted* from the number of Blind Hexes which are created by that obstacle to determine if that hex behind the obstacle is actually a Blind Hex. (See Example at the top of the next page.)

© 2000 Multi-Man Publishing, LLC

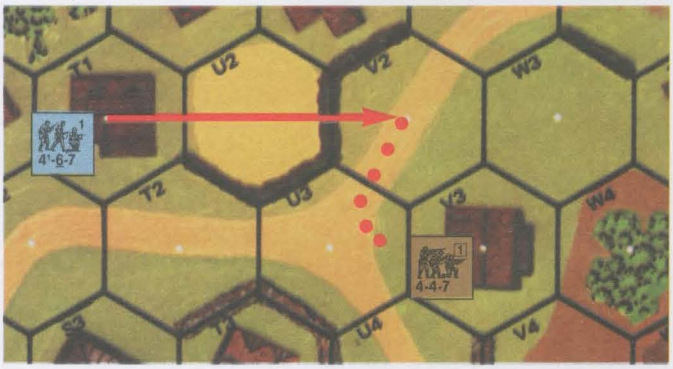


EX: There is no LOS from Level 3 hill hex 2J4 to Level 1 hill hex H2 because the intervening woods in I3 makes H2 a Blind Hex (6.4). The LOS to H1 is also blocked, because the difference in elevation of I3 and H1 is added to its Blind Hex creation. Had H1 been a Level 1 hex instead, a LOS to it would exist; alternatively, had J4 been a level 4 hex instead, a LOS to H1 would exist (6.42).

6.5 RECIPROCITY: As high-to-low LOS procedures are the converse of low-to-high, it follows that whenever a higher unit can see a lower unit that the lower unit can also see the higher unit.

6.6 UNITS: The presence of Personnel units in a hex does not block LOS through that hex (although the presence of an AFV/wreck may hinder [and thereby modify] fire through the hex; D9.4). Direct Fire attacks can be traced through units in intervening hexes without affecting them unless specified otherwise.

6.7 LOS HINDRANCE: Some terrain types are not uniformly high or substantial enough to be considered a complete obstacle to same-level LOS, and are listed as LOS Hindrance hexes because each one hinders such fire traced through its hex to another hex but not sufficiently to prevent it entirely (see Terrain Chart/Desert Terrain Chart/PTO Terrain Chart). All same-level Direct Fire and spotting attempts traced *through (not just into or out of)* an effective LOS Hindrance hex are modified by a +1 DRM to either the IFT or To Hit DR, or the Artillery Initial Accuracy dr. The presence of such a Hindrance always negates Interdiction and FFMO. Being in a LOS Hindrance hex *[EXC: SMOKE (24.2) and FFE Hindrance (C1.57)]* does not hinder the LOS of a firing or target unit; it is only the presence of a LOS Hindrance hex between the same-level firing and target units (regardless of whether either/both are Personnel or vehicles) that forms a LOS Hindrance *[EXC: SMOKE and FFE Hindrances are effective Hindrances to LOS even if they are in the viewer or target hexes rather than between them; these Hindrances (24.4 & C1.57), as well as bridge (B6.2), orchard (B14.2), and tower (B34.2) LOS Hindrances and Fog (E3.311) may affect units at different levels]*. Unlike range, which is always the least number of hexes from firer to target regardless of LOS, LOS Hindrances are incurred whenever the LOS crosses a Hindrance—regardless of how small a portion of that hex it may be. Whenever a LOS crosses (or goes along the shared hexside of) two hexes that have the same range to the firer, however, only the LOS Hindrance of the hex with the highest applicable LOS Hindrance DRM is counted. Therefore, the number of hexes in which a LOS Hindrance applies will not exceed the range.



EX: A 4-6-7 squad in 3T1 using Defensive First Fire vs a Non-Assault moving squad in V2 traces his LOS through a Hindrance hex (the grainfield in U2). The 4-6-7's attack is modified by +1 for the LOS Hindrance, +1 for TEM (hedge), and -1 for FFNAM for a total modification of +1. Now, assume that T1 is a building with an upper level and the firing 4-6-7 is at level 1. The same attack would now be resolved without any DRM (-1 [FFNAM] +1 [hedge TEM] = 0).

EX: Even though the LOS from 4V3 to W10 encounters seven LOS Hindrance hexes in an area equivalent to a range of only five hexes, the Hindrance DRM is +5, not +7. Hexes V6 and W6 are both three hexes from V3, so only one +1 LOS Hindrance DRM is counted for those two hexes. Similarly, hexes V7 and W7 cause only one +1 Hindrance DRM between them. If there were a wreck in V7, however, the total LOS Hindrance DRM would be +6.

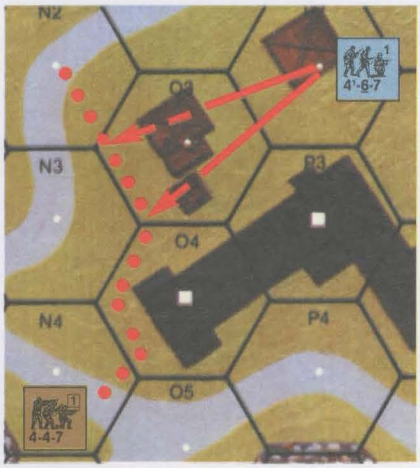
6.8 Even units in adjacent hexes do not always have a clear LOS to each other. This is especially true of units using Bypass to transit an obstacle hex with the obstacle between the mover and the firer.



EX: Even though in adjacent hexes, units IN gully hexes 12BB4 and AA5 cannot see each other because they are not connected by a Depression hexside.



EX: A unit on the ground level of 12U5 cannot see a unit on level 2 of U5 or level 1 of V4 because of the intervening building levels.



EX: A unit in 12P2 does not have a LOS to a unit in O3 Bypassing the O3-N3 hexside.

7. FIRE ATTACKS

7.1 Fire attacks are the main process by which a unit attacks enemy units. Fire attacks can occur in the PFPh and AFPh by the ATTACKER and in the MPh and the DFPh by the DEFENDER, but no unit can fire its inherent FP/SW/Gun in more than one fire phase (A.15) per Player Turn. Otherwise, players may fire all, some, or none of their units in any applicable fire phase.

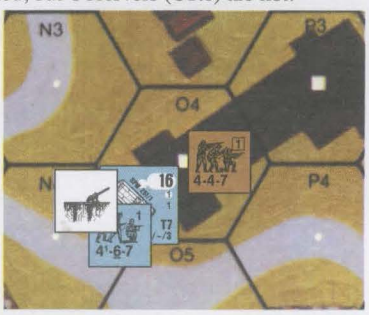
7.2 FIREPOWER MODIFIERS: The FP factor of an attacking unit can be doubled, tripled, and/or halved due to a variety of circumstances. Fractions of halved FP factors are not dropped or rounded off; they are retained and subject to further modification, or added to the fractional FP factors of other units involved in the same attack. FP modifiers are cumulative; an attacker's FP can be both doubled and halved (with the net result that it retains its normal FP), and/or it can be halved and then halved again several times.

© 2000 Multi-Man Publishing, LLC

7.21 POINT BLANK FIRE (PBF): The Small-Arms/MG/ATR/IFE FP of an attacking unit is doubled while either ADJACENT to its target or adjacent to and either within one level of or higher than its target.[8] If adjacent but without a LOS to it (such as units IN non-connecting gully hexes 12AA5 and BB4) no attack can be made. On those rare instances when fire attacks are allowed vs units in the same Location as the attacker or vs PRC in the same hex (7.211), the FP of the attacking unit is tripled (hereafter referred to as TPBF). As IFT attacks are not allowed by units in Melee, such occurrences vs non-PRC are usually limited to instances in which Infantry are allowed to enter an enemy-occupied Location during the MPh (4.14). Ordnance weapons do not double their FP for PBF, but may have a greater chance of scoring a CH (C3.7).

7.211 TPBF vs PRC: Any PRC not BU in a CT AFV which are in an enemy-occupied hex are subject to TPBF attacks from enemy units in that Location or any higher Location in that hex, regardless of whether or not the PRC disembark (see also D6.5). Halftrack Passengers and OT AFV crews are subject to such an attack even if not CE, but receive the +2 CE DRM (D5.31). The Moving units *[EXC: BU PRC]* may attack first as part of an OVR or in turn during their AFPh with both Area and TPBF if they are able to. Any survivors are not considered held in Melee until after the CCPh (PRC of Mobile vehicles are never held in Melee; 11.71) and are marked with a CC counter once the vehicle ends its MPh in that Location and are therefore able to rout away in the RtPh.

7.212 TARGET SELECTION LIMITS: A unit does not have the freedom to attack units in other Locations while its own Location is occupied by a Known enemy unit (even if disrupted) unless the only known enemy unit in its Location is an unarmed/unarmored vehicle. Whenever a unit is eligible for TPBF vs Known enemy units, it can attack only those units. Spotters (C9.3) are similarly limited, but Observers (C1.6) are not.



EX: As long as the squad and the halftrack are in the same Location (even if in Bypass), neither can fire outside of that Location. The squad can attack the PRC with TPBF but the PRC, being BU, cannot attack back. If the squad were in an upper-level Location of the hex, it still could attack only its own Location or that of the halftrack. The upper-level squad would still attack the PRC with TPBF, but now the Passengers could attack back (D6.61) although only with PBF (if within one level), not TPBF; if CE, the HT (and its Passengers) could fire outside its Location. If the squad were in an upper-level Location and the halftrack were instead a BU CT AFV, then neither would be restricted by the other.

7.22 LONG RANGE FIRE: A unit may attack beyond its Normal Range at a distance up to and including double that range *[EXC: ATR, MOL, DC, Ordnance and some FT]*, but it does so at half FP.

7.23 AREA FIRE: The FP of an attacking unit is halved if the target is concealed or for any application of the Area Fire penalty *[EXC: MOL; ordnance; C.4]*, and is halved again for each additional applicable use.

7.24 AFPh FIRE:[9] The Small-Arms/MG/ATR/IFE FP of an attacking unit is halved if the attack occurs in the AFPh—*even if the firing unit did not move in that Player Turn*—unless it is using Opportunity Fire. MOL, FT, and DC are not halved (see C.4 for Ordnance).

7.25 OPPORTUNITY FIRE: Any Good Order Infantry/Cavalry which has not yet fired or become TI during that Player Turn may be placed beneath a Bounding Fire counter during its PFPh. Such placement removes any concealment status it may have had if it is in LOS within 16 hexes of a Good Order enemy Ground unit (12.14). Such a unit cannot fire during the PFPh or move during the MPh, but if still unbroken (/unpinned, in the case of FT/DC/MOL) may fire during the AFPh without the penalty of AFPh Fire (7.24). Once a unit Opportunity Fires and exhausts its Multiple ROF, flip its Bounding Fire marker over to the Prep Fire side. An Opportunity Firer is the only unit that can use a Multiple ROF or Intensive Fire during the AFPh.[10] Ordnance can use Opportunity Fire only if fired by Infantry, and cannot change its CA until actually resolving its To Hit attempt during the AFPh when it would be subject to applicable Case A To Hit DRM.

7.26 MISCELLANEOUS: Several other relatively rare circumstances can serve to modify FP and are listed beneath the IFT and in their respective rule sections.

7.3 RESOLUTION: Fire attacks are resolved by checking to see if any FP modifiers alter the FP of each attacking unit and then adding the adjusted FP factors of all units attacking the same target (see 7.4-.5) to determine the total FP strength of the attack. Make a DR and, after adding any applicable DRM due to the effect of terrain, Hindrances, target characteristics, and/or leadership, cross-index the adjusted DR with the applicable FP column of the IFT to determine the results of the attack. The attacker uses the rightmost column of the IFT whose listed FP (in bold type) does not exceed the total adjusted FP of the attack. Any excess FP factors have no effect *[EXC: Heavy Payloads; C.7]*. The results vs Personnel targets are applied as follows:

7.301 #KIA: At least as many target units in each specifically targeted Location (e.g., Spraying Fire or Canister, but not Area Target Type, attacks) as the number indicated (#) are eliminated (as determined by Random Selection); all remaining target units are automatically broken. Units which cannot be broken (e.g., berserk/heroic/broken/unarmed) suffer Casualty Reduction instead. The number of units eliminated can exceed the number specified if Random Selection results in a tie for the last unit to be eliminated, but in no case are more units affected than are subject to that attack.

7.302 K/#: At least one target unit suffers Casualty Reduction in each specifically targeted Location and all other target units (including any just-Reduced HS) must take a MC, adding the number indicated (#) to the MC DR. Random Selection is used to determine which of multiple targets suffer Casualty Reduction. Casualty Reduction eliminates any HS or crew *[EXC: Recall; D5.341]*, and wounds any SMC it applies to (the wound may become an outright elimination, depending on the Wound Severity dr; 17.11). A squad is Reduced to a HS with the same broken/non-broken status of the squad it was Reduced from.

7.303 NMC: Each target unit must attempt to pass a Morale Check by making a DR ≤ the Morale Level of the unit, best leaders first; those which fail are usually broken. See 10.3.

7.304 #MC (1, 2, 3, or 4): Same as NMC but the # is added to the MC DR.

7.305 PTC: A "PTC" result forces an unbroken Personnel target to take a NTC; those which fail are pinned—not broken. Broken units never take Pin TC, although they can become pinned during Interdiction (10.53) by passing a MC with the highest DR possible (7.8). See 7.82-.821 for Pin effects vs vehicle and PRC.

7.306 —: No Effect

EX: A FG of two 4-6-7 squads, a MMG, and a 9-2 leader Prep Fires at three squads and a leader seven hexes away in Open Ground. The FP of the two squads is halved due to Long Range Fire, leaving the FG with a total of nine FP factors. The Original IFT DR is an 8 which is modified by -2 for the leader's direction of fire, resulting in a FINAL DR of 6. A 6 DR on the 8 FP column of the IFT results in a 1MC to each of the four defending units, leader checking first.

7.307 vs ARMORED TARGETS: Small Arms and non-ordnance attacks *[EXC: FT, DC, MOL, ATMM]* have no effect vs armored targets but may leave Residual FP. Any Vulnerable PRC in or on such vehicles are affected normally as Personnel targets [see Stun (D5.34), Recall (D5.341), Unprotected Crews (D5.311), and Bailing Out (D6.24)].

7.308 vs UNARMORED VEHICLES: All non-ordnance Direct Fire attacks vs unarmored vehicles/horse counters are resolved on the ★ Vehicle line of the IFT using the same IFT DR (after any applicable modification) for any Personnel target in the same Location. Unless using Defensive First Fire, non-ordnance attacks vs unarmored vehicles/horses affect all occupants of the Target Location including Infantry and other

© 2000 Multi-Man Publishing, LLC

vehicles/horses which are present in the same Location *[EXC: a vehicle in Bypass and out of the firer's LOS cannot be affected, nor can more vehicle/horse counters be affected by a DR than the highest KIA# of that column as randomly determined (e.g., a 6, 8 or 12 FP attack vs the ★ Vehicle Line could affect no more than three vehicles; a 2 or 4 FP attack could affect only two vehicles; a 1 FP attack could affect only one vehicle)]*. If that Final DR is < the Kill Number listed for the IFT FP column used, the vehicle is eliminated *[EXC: Unlikely Kill; 7.309]*; if it equals the Kill Number, the vehicle is immobilized *[EXC: if HD the vehicle is unaffected by an Immobilization result]*; if the Final DR is ≤ *half* of the Kill Number, the vehicle is eliminated as a burning wreck and all of its PRC are eliminated. Otherwise, the PRC of an eliminated vehicle must check for survival (D5.6). The surviving PRC of an eliminated vehicle are not subject to further effects from that attack. However, the Vulnerable PRC of a vehicle that has not been eliminated may still be subject to a Collateral Attack (D.8).

EX: A 4-4-7 squad, an 8-0 leader, and a MMG form a FG during the PFPh to attack a shellhole hex containing a squad and a truck that is transporting a HS Passenger. The Original IFT DR is a 7. The 8 FP attack is resolved against the truck with no DRM because the TEM of a shellhole applies only to Infantry. The Final DR of 7 immobilizes the truck, and the HS Passenger suffers a 1MC in the General Collateral Attack. In addition, the squad suffers a NMC because the shellhole +1 TEM has adjusted the IFT DR to an 8. If the Original DR had been a 3, the truck would have been turned into a burning wreck, eliminating the HS Passenger, with a 2MC to the squad in the shellhole. If the Original DR had been a 6, the truck would have been eliminated and its HS Passenger would have had to pass a Survival Check to not be eliminated (and if it passed it would be otherwise unaffected by this attack). The squad would have suffered a 1MC.

7.309 UNLIKELY KILL: Any Original 2 IFT resolution DR on the ★ Vehicle line of the IFT always yields the *possibility* of damage even if applicable DRM raise the Final DR above the indicated Kill Number for that FP column. In such a case, the firer can make a subsequent dr even if the Original 2 DR would have resulted in an elimination or Immobilization. On a dr of 1 the vehicle becomes a burning wreck; on a dr of 2 it is eliminated; on a dr of 3 it is immobilized (unless HD); on a dr of 4-6 (3-6 if HD) there is no effect. However, regardless of the subsequent dr, if the Original 2 DR would have resulted in elimination or Immobilization that result occurs instead, unless cancelled by a better (i.e., elimination or burning) result from the subsequent dr.

7.31 A target may be attacked any number of times during a fire phase (depending on the type and phase of the attack), but when a result is called for by the IFT it is resolved prior to making any other attack on that target.

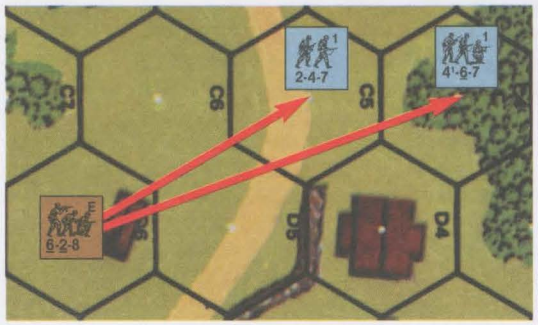
7.32 A player need not predesignate attacks; i.e., he may witness the outcome of each attack before committing other units to fire.

7.33 MULTIPLE TARGETS: A Personnel unit may not split its inherent FP between different targets *[EXC: 7.34]*, but a squad can fire one or two of its SW separately at different targets provided it does so in the same fire phase (7.1). A squad which has fired its inherent FP but not yet used its SW (or the SW's final shot in the case of Defensive First Fire) should be marked with the proper Prep Fire/First Fire/Final Fire counter, but with the SW on top of that counter unrestrained by it.



7.34 SQUAD SPRAYING FIRE: Spraying Fire is limited to those squads with an inherent LMG, multiple SMG, and/or superior tactical training. Any squad with a Spraying Fire option is identified by the underscore beneath the Range portion of its Strength Factor. Squad Spraying Fire is identical to MG Spraying Fire (9.5) except that it is limited to a maximum range of three hexes. If Spraying Fire at three hex range exceeds the Normal Range of the unit, any target hex beyond Normal Range would halve the FP again as Long Range Fire. (See Example at the top of the next column.)

7.35 SW USAGE: All weapons on $^1/_2$" counters are SW *[EXC: Goliath]* and must be possessed by an unbroken Personnel unit in order to fire. Usage limitations for each type of SW are listed on the SW Chart. However, two general rules apply to all SW:



7.34 EX: The 6-2-8 squad in 2D6 can trace a LOS to each of hexes C5 and C4 so it attacks both hexes with Area Fire. Note, however, that C5 is attacked with three FP while C4 is at Long Range so the FP must be halved again and attacks with only $1^1/_2$ FP plus a +1 TEM for the woods. So an Original DR of 3 would result in a 1MC vs C5 and a NMC vs C4.

7.351 A squad may fire any one SW/Gun without the squad losing its inherent FP; this inherent FP can be added to the SW attack in the case of a MG, or used for a separate attack in the same fire phase. A squad may never fire more than two SW in the same fire phase although it may fire two different types. A squad using two SW loses its inherent FP until the CCPh *[EXC: 7.353]*.

7.352 A crew/HS/SMC that fires any SW/Gun loses its inherent FP until attacked/attacking in CC or the end of that Player Turn (whichever comes first) *[EXC: 7.353]*.

7.353 In both of the above cases, Subsequent First Fire (8.3), FPF (8.31), and Final Fire (8.4) vs adjacent units retain halved inherent FP for those attacks (regardless of how they were used during First Fire)—although use of full SW/Gun capability during such attacks can negate inherent FP in the normal manner. See the 8.41 EX.



7.36 ASSAULT FIRE: Assault Fire is restricted to squads armed primarily with SMG/semi-automatic rifles, as well as appropriate training in their use. Such squads are identified by the underscoring of their FP factor. Assault Fire capability allows any squad using its inherent FP during the AFPh to add one FP to its Small Arms Fire attack after all modification to the squad's inherent FP; any fraction in its FP is then rounded *up*. The Assault Fire bonus is not applicable to Opportunity Fire or Long Range Fire, but is still applicable to pinned-firers/Spraying-Fire in the AFPh.

EX: A 6-6-6 squad firing at a target four hexes away in the AFPh has four FP (3 [AFPh Fire] +1 = 4). Two 5-4-8 firing during the AFPh at an ADJACENT concealed target have eight FP ([5 [FP] × 2 [PBF] = 10] ÷ 2 [AFPh] = 5 ÷ 2 [Concealed Target] = $2^1/_2$ +1 [Assault Fire] = $3^1/_2$ = 4 [FRU] × 2 [two squads] = 8).

***7.37 INCREMENTAL IFT (IIFT):** In addition to the standard IFT (A7), an Incremental IFT is included for optional use. The IIFT is used exactly as the standard IFT except as indicated below. [10A]

7.371 COLUMN SHIFTS: Column shifts (for Cowering, Fire Lane, Barrage FP, HEAT HE Equivalency, etc.) always use "standard" IFT columns (i.e., 1, 2, 4, 6, 8, 12, 16, 20, 24, 30, 36), which are marked on the IIFT with a colored background (as opposed to the "incremental" columns which are not so marked). When a one-column shift is required, an attack that would otherwise have used a "standard" IFT column simply shifts to the next-lower-FP "standard" column; an attack that otherwise would have used an "incremental" column first shifts to the next-lower-FP "standard" column, then shifts again to the *next*-lower-FP "standard" column. A two-column shift follows these same principles, but drops yet again to the next-lower-FP "standard" column.

EX: A 4FP attack that Cowers (7.9) shifts to, and is resolved on, the 2FP "standard" column (or the 1FP "standard" column if Inexperienced Personnel were involved [19.33]). A 5FP attack that Cowers is resolved in the same manner, but it first shifts to the 4FP (i.e., next-lower-FP) "standard" column, and then to the 2FP "standard" column where it is resolved (unless Inexperienced Personnel were involved). A 7FP German HMG would place a 4FP Firelane assuming it did not cower.

Similarly, 150mm OBA, which is normally resolved on the 30FP "standard" column, shifts to the 24FP "standard" column when used as Barrage (E12.5). Likewise, 160mm through 190mm OBA would be resolved on the 24FP "standard"

© 2000 Multi-Man Publishing, LLC



column if used as Barrage. Additionally, resolution of 75mm HE uses the 14FP "incremental" column, but its HEAT HE Equivalency (C8.31) would be resolved on the 8FP "standard" column.

7.372 FIREPOWER MODIFIERS: Doubling, halving and such of FP (e.g., PBF, Area Fire, etc.) is based upon the actual FP (both before and after increasing/decreasing it), regardless of whether the columns are "standard" or "incremental" *[EXC: Residual FP (8.2) uses the highest-FP counter that is ≤ 1/2 the FP used in the attack]*. DRM are applied normally, regardless of column.

EX: A 5FP attack is resolved on the 10FP column if using PBF, or on the 2½ FP column if firing at Long Range; in the first case it would leave 4 Residual FP, in the second it would leave 1 Residual FP.

An HE Concentration of 105mm OBA is resolved on the 21FP column, or on the 10FP column (½ × 21 = 10[FRD]) if resolved vs Marsh (B16.31). A Barrage of 105mm OBA would be resolved on the 16FP "standard" column or on the 8FP column vs Marsh. Harassing Fire 105mm OBA is resolved on the 7FP column (⅓ × 21 = 7) or on the 3½ FP column vs Marsh. A CH with 105mm OBA (whether HE Concentration, Barrage, or Harassing Fire) would involve 42FP (C3.75) and would be resolved on the 36FP column with no modifiers (since 42FP is not a whole multiple of 8FP in excess of 36 [C.7]), or on the 21FP column vs Marsh.

7.4 TARGET DETERMINATION: Except during Defensive First Fire (8.1), all the Personnel-units/unarmored-vehicles/Vulnerable-PRC in the same Location are considered targets of fire that does not have to specify a particular target, with the outcome of such fire affecting all those enemy (or Melee) units in the target Location (except those to which the LOF is blocked, such as being entrenched behind a wall [B9.21], Area Target Type [C3.33], or non-Crest units in a Depression [B20.92]). Although all targets are affected by the results of such fire combat, some may escape harm entirely while others are eliminated, broken, pinned, or affected by Heat of Battle (15.). A MC/PTC result requires all target units to take an independent MC/TC with a separate DR for each unit. A unit/weapon may purposely attack a friendly unit(s) only if specifically allowed to by the rules governing a particular circumstance (e.g., Prisoners, Melee, OBA); see C3.33 for Area Target Type.

7.5 FIRE GROUP (FG): Two or more units/weapons joining together to make a combined fire attack are a FG. Two SMC manning the same SW are not a FG as they are considered one combined firing unit. A FG may consist of units from more than one Location only if each participating unit occupies a Location ADJACENT to another participating unit of the same FG. It is possible to have a FG composed of a virtually unlimited string of ADJACENT Locations; provided each Location in the FG contains a Personnel unit that is participating in the attack. A leader alone in a Location cannot be a link in a FG (unless he is Heroic or firing a SW) because each Location of a FG must participate in the attack and a leader normally has no attack capability. Units inside a pillbox may not form a FG with units outside the pillbox.

7.51 VEHICLES/ORDNANCE: Vehicles/Passengers/Riders may be part of a FG within certain restrictions; see D6.64. Vehicles in Bypass in the same hex without a LOS to each other may not form a FG. Ordnance-weapons/Canister/IFE may not form a FG with any other unit/weapon, including other weapons of the same unit *[EXC: vehicular MG/IFE; D3.5]*; e.g., a tank may not combine its ordnance MA and MG armament into a single attack.

7.52 All members of a FG must be able to trace a LOS to the target. Should the LOS of any FG member be subject to a Hindrance/TEM (/Cowering/CX penalty), the worst possible case applies to all members of the FG (A.5). For this reason, it is often wise to break up such a FG and have its component parts attack separately. A multi-Location FG which discovers that one or more of its units' LOS is blocked forfeits the participation of only those units whose LOS was blocked. The FG's other units with a valid LOS must still attack the same target (unless it was eliminated by a previous attack, in which case their attack is forfeit and they are marked with an appropriate fire phase counter) after resolving the blocked firer's DR (6.11), but as a smaller FG or as separate attacks.

7.53 FIRE DIRECTION: A single leader cannot direct more than one weapon/unit per phase unless they are part of the same FG. Hence a squad that elects to use its inherent FP in a different attack than that of the MG it is manning does not get the leadership benefit if given to the MG instead. However, a leader can direct the fire of a MG as many times as the MG can fire, even if he also directed other units as part of a FG in the MG's previous attack. Leader direction used during Defensive First Fire can be used again in Subsequent First Fire, FPF, or Final Fire, but again only for one firing unit/SW or FG—and that unit/SW/FG can only include firers he directed during First Fire; if forming a new FG or using a different SW during that Player Turn, the leader cannot direct its fire (even during FPF). Similarly, a leader may not affect more than one To Hit attempt per fire phase (except for a multiple ROF weapon) regardless of the number of SW the firing unit is eligible to fire. See also 9.4, 10.7, and D6.65.

7.531 A leader may use his leadership DRM (10.7) to modify the IFT DR of any one attacking unit or FG per Player Turn, provided all firing units of the FG are in the same Location. A leadership DRM may be employed with a multihex/Location FG only if a leader directing that attack is present in every Location; the leadership DRM in effect is that of the lowest-quality participating leader. A Leader affects the To Hit DR of an ordnance SW—not the effects of those hits on the IFT or AFV To Kill Table, nor the chance of a weapon malfunction. A Leader directing fire is treated as if he were firing.

7.54 BERSERK: A berserk unit may never be part of a multi-Location FG.

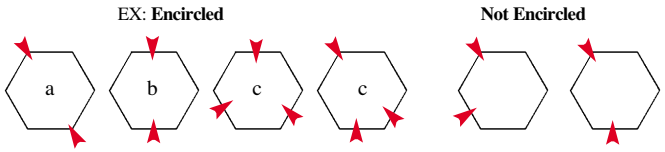
7.55 MANDATORY FG: If Good Order units/weapons in the same Location are going to fire at the same target (i.e., at both the same Location and the same unit and the same "simultaneous" [8.1] MF/MP expenditure; see D3.5) during the same phase they must form a FG *[EXC: Fire Lane; 9.22]*; they may not attack separately except with ordnance/FT/DC or the subsequent shots of multiple ROF weapons (9.2).

7.6 TEM & LOS HINDRANCES: The terrain of the target hex/Location often alters the effectiveness of Fire Attacks by adding a DRM to the IFT DR. The DRM applicable to each terrain type is listed on the TEM column of the Terrain Chart and in the applicable rule section. TEM are generally cumulative, although there are many exceptions. Any LOS Hindrance (6.7) between the target and firer also lessens the effectiveness of Fire attacks by adding a Hindrance DRM to the IFT DR.

7.7 ENCIRCLEMENT: Any non-Aerial Infantry, or Vulnerable PRC of an Immobile vehicle, fired upon consecutively during the same PFPh, DFPh (*not* MPh), or AFPh by two or more non-Aerial units using their inherent-FP/SW/ordnance at ≤ Normal Range (1.22, 10.532) is subject to possible Encirclement *[EXC: pillbox; B30.32]*. The attack(s) constituting an Encirclement must be resolved *consecutively*; if a player fires at a different target in the interim, he cannot use previous attacks as the basis for his claim to Encirclement. Encirclement occurs if the firer's LOS enters the target Location either: a) through opposite hex*spines*; b) with exactly three target-hex vertices between them in both clockwise and counter clockwise directions; or c) through any three non-contiguous hex*sides*. An Encirclement can also be created by a LOF from both the Location directly above and below it in a building hex. To be considered valid fire, ordnance weapons must secure a hit on the target, and other firers must exert enough FP (taking the *possibility* of Cowering into account) to possibly inflict at least a NMC result on the target. A qualifying target Location is thereafter marked with an Encirclement counter and every non-berserk, non-heroic enemy/Melee Personnel unit therein suffers an immediate one level drop in morale to both the attack that sealed its Encirclement and any other attacks made against that Location as long as it is so marked. All fire by an Encircled unit is subject to a +1 DRM on the IFT (or To Hit DR if ordnance). The MF cost of the first Location entered (regardless of phase) by an Encircled unit is doubled (after all modification). Should other enemy units enter an Encirclement Location they are immediately Encircled. Regardless of the Encircler's subsequent actions, the Encircled counter remains on the Location to affect all enemy/Melee Infantry units, and Vulnerable PRC of an Immobile vehicle, in that Location until they all leave the *Lo-*

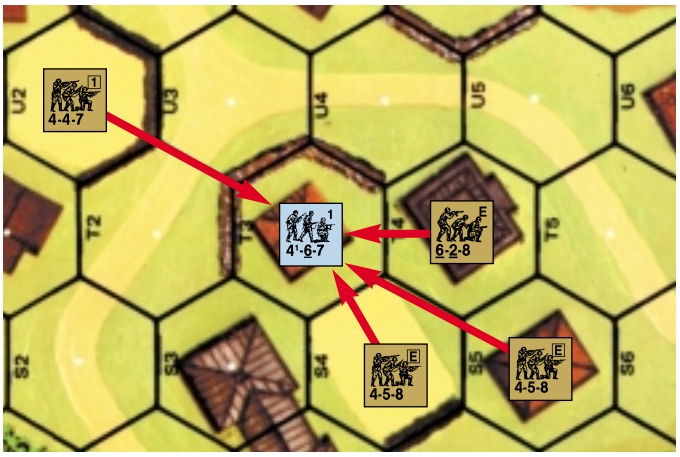
© 2000 Multi-Man Publishing, LLC

cation (even if they all leave it only momentarily), become berserk/heroic, are eliminated, or are captured. Being Encircled has adverse effects on a unit's ability to avoid capture (20.21). A unit Encircled more than once does not suffer additional penalties for multiple Encirclement.



7.71 FG: The LOS of a FG may penetrate the target Location through more than one hexside; all such hexsides crossed count toward possible Encirclement. It is even possible for a single FG to cause Encirclement.

7.72 UPPER LEVELS: Encirclement also applies to any non-heroic/non-berserk unit in an upper level building Location that cannot trace a path free of an unbroken, armed, unconcealed enemy unit/Blaze to ground level through (or past, if Scaling; B23.424) Locations it could legally traverse if so inclined. This type of Encirclement is broken the instant such a path can be traced.



EX: If a unit in U2 fires on T3, T3 can be Encircled if the next attack(s) in that phase is from S5 (along the S4-T4 hexspine of T3), or through both the S4-T3 and T4-T3 hexsides. A four-hex FG in 3T3-U4-U5-T5 firing on T4 with enough FP to cause a MC or better result on an Original 2 DR automatically Encircles it.



7.8 PIN: Pinning (7.305) also occurs whenever any unit is attacked resulting in an IFT MC that is passed by rolling the highest DR possible that still results in a passed MC. Cavalry, vehicles, units in Water Obstacles, and units that are berserk, Heroic, Aerial, or Climbing are not subject to pinning *[EXC: a Minimum Move (4.134) pins berserk/heroic Infantry, as might a PF check (C13.31); see G5.5 for Collapsed huts]*. A unit is also pinned if it fails a PAATC (11.6; 12.41). Pinning affects broken units only during Interdiction (10.53), and even then only during the RtPh, so there is no need to place Pin counters on broken units. A pinned unit has its inherent FP halved for the remainder of that Player Turn (in addition to any other halving of its FP for other reasons) and may not move/advance farther during that Player Turn (although it may rout if later broken, even voluntarily). Place a Pin counter on top of the affected unit. The halved FP of a pinned unit in CC applies only to its attack, not to its defense. Pin effects are not cumulative; a unit suffering multiple Pin results has its FP halved only once, so an already-pinned unit does not take a NTC due to a "PTC" result on the IFT. Remove all Pin counters at the end of the current Player Turn or if the unit subsequently breaks/goes-berserk/Battle-Hardens/becomes-heroic (whichever comes first).

7.81 INFANTRY EFFECTS: Pinned Infantry fires MG/IFE/Canister as Area Fire, must add +2 to its To Hit DR (To Hit Case D), and cannot attack with a FT/MOL/DC, declare a Firelane, change a weapon's CA (9.21; C5.1-.12), or use Intensive Fire or a Multiple ROF (although it may use Subsequent First Fire/FPF; 8.3-.31).

7.82 VEHICLE/CREW: A Pin result vs the CE Inherent crew of a CT AFV forces it to remain BU during that Player Turn, thus subjecting it to the Case I (BU) To Hit DRM. The Inherent crew of an OT AFV remains CE vs a Pin result, but during that Player Turn is subject to the Case D To Hit DRM and the halving of all MG/IFE/FT/Canister FP, as well as prohibiting it from using Intensive Fire and Multiple ROF. An Inherent crew that suffers a Pin result when attacked through an unarmored Target Facing (even if only hull or turret/upper superstructure) is subject to the same penalties as that of an OT AFV. A vehicle itself can never be pinned, nor can its Inherent crew; however, leave the Pin counter on the vehicle to show that the above penalties apply.

7.821 PASSENGERS/RIDERS: Pinned Passengers must BU if CE and are considered Pinned for all purposes, although they may continue to be transported by their vehicle and may even unload (D6.5) at their option, but then become pinned in the dismount Location. Pinned AFV Riders must Bail Out (D6.24).

7.83 MOVEMENT/ADVANCE: Pinned Infantry is not subject to any further DRM for FFNAM/FFMO during that Player Turn. However, if a pinned unit is subsequently broken during Defensive First Fire, it loses its pinned status and is subject to FFNAM/FFMO DRM (if applicable) for further Defensive First Fire attacks against it in its MPh (keeping in mind that a broken unit's MPh ends as soon as another unit moves[11]). A pinned unit *[EXC: PRC]* is considered a non-moving unit for purposes of all subsequent ordnance To Hit attempts during that Player Turn. A unit that is pinned while moving through an entrenchment Location without actually having paid the one MF necessary to enter that entrenchment is not considered in it, and cannot enter it while pinned.

EX: A squad uses Non-Assault Movement to enter an Open Ground hex and is attacked by Defensive First Fire with a -2 FFMO/FFNAM DRM, resulting in it being pinned. Another defending unit now First Fires on it but without the -2 DRM because the unit is pinned. However, this attack breaks the squad and removes its pinned status. If another unit First Fires on it in its present MPh it will again be subject to the -2 DRM. However, as soon as another unit is moved, the broken unit's MPh is over and it is no longer subject to FFMO/FFNAM DRM.

7.831 LEADERS: A moving leader who becomes pinned does not force any Infantry in the same moving stack to take a LLTC, but does cancel the two MF (if not already used; see 4.12) and/or portage (4.42) bonus that it might otherwise have given to other Infantry in the same moving stack. A pinned leader can neither direct an attack nor use Voluntary Rout (10.711; although it may still voluntarily break [10.41] to rout)—nor can a pinned leader aid other units' MC/TC (including the use of a Commissar's increased Morale Level; 25.221).

7.9 COWERING: IFT attacks are adversely affected by any IFT resolution DR that results in Original "Doubles" unless a leader directs that attack. The penalty for rolling Doubles without leadership direction is that the attack is resolved on the next lower column of the IFT. An attack on the lowest column which cowers is reduced to no effect at all, although a malfunction result can still occur. In addition, any unit that cowers (as well as all of its SW regardless of whether it was using its inherent FP) is automatically marked with a Final or Prep Fire counter as appropriate. Cowering affects all fire except that from a SMC, berserk or Fanatic unit, Fire Lane, IFE, Canister, Aircraft, British Elite and First Line units, Finns, Sniper, ordnance, OBA, or any form of vehicular fire. Cowering FP penalties are doubled (i.e., resolved *two* columns lower on the IFT) for an attack by Inexperienced (19.33) Personnel (even in conjunction with other troops). Cowering does not affect CC or DC resolution (including Reaction Fire; D7.2). If a FG cowers, Random Selection is used to determine the unit(s) (and its SW) that becomes marked with a Prep or Final Fire counter.

© 2000 Multi-Man Publishing, LLC

8. DEFENSIVE FIRE PRINCIPLES

8.1 FIRST FIRE: Defensive Fire is unique in that it can occur during the enemy MPh as well as during its own DFPh. The portion occurring during the enemy MPh is called Defensive First Fire and can be used only vs a moving unit(s)—although it can also affect the terrain in the hex. During the ATTACKER's MPh, the DEFENDER should keep careful watch as the ATTACKER counts aloud the MF/MP expended as each unit/stack he moves enters a new Location or performs some task requiring the expenditure of MF/MP in its current Location. Anytime a unit/stack expends MF/MP in the LOS of one of his units, the DEFENDER has the option to temporarily halt its movement while he fires at it in that Location with as many attacks as he can bring to bear. The DEFENDER must place "First Fire" counters above all units/weapons that have fired and exhausted their ROF (being sure to place any SW that are still eligible to fire above that First Fire counter); these units/weapons may not fire again during that MPh *[EXC: Subsequent First Fire and FPF (8.3-.31); Intensive Fire (C5.6)]*. Defensive First Fire attacks affect only the moving unit/stack regardless of other units that occupy the same or intervening hexes at the instant of attack. Although a vehicle that enters a new hex is considered a "moving target" throughout the DFPh (C.8), only one vehicle at a time is ever considered "moving" for Defensive First Fire purposes *[EXC: Radioless AFV Platoon (D14.2); Convoy (E11.)]*. Once another unit begins movement or the MPh is declared over, previously moved units are no longer subject to Defensive First Fire attack. Units can expend MF/MP for movement activities other than physically moving (e.g., placing SMOKE grenades, SW Recovery, etc.) but may not combine two or more different activities in one "simultaneous" MF/MP expenditure. *[EXC: Impulse Movement; 13.6; 25.232; D14.2; E11.2; E11.52.]*

EX: A unit wishing to move into an Open Ground Location and attempt SW/Gun Recovery (4.44) cannot declare a two-MF expenditure to do so; it must expend one MF to enter the Location, and only after surviving, unpinned and in Good Order, all Defensive First Fire ensuing from that expenditure can it expend another MF to Recover the SW/Gun.

8.11 FACING: Defensive First Fire must be resolved before the moving unit/stack leaves the intended target Location (or, if firing at a particular Target Facing of an AFV, before that AFV changes its current Target Facing). The DEFENDER may not request that a moving unit be returned to a previous position to undergo attack. However, the ATTACKER must give the DEFENDER ample opportunity (as previously defined between the players) to declare his fire before moving on and, before moving another unit, must declare the end of the first unit's movement at which time it may be fired on as moving. Vehicular Facing changes (D2.11) must be declared aloud and followed by an appropriate pause before further movement. Similarly, any moving vehicle planning to unload Passengers/Riders may do so only after an adequate pause following its expenditure of a Stop MP (D2.13). Once the ATTACKER announces that he is unloading Passengers, it is too late for the DEFENDER to announce an attack on the vehicle with its Passengers/Riders still loaded—even if the disembarking declaration is the first MP/MF expenditure of the MPh.

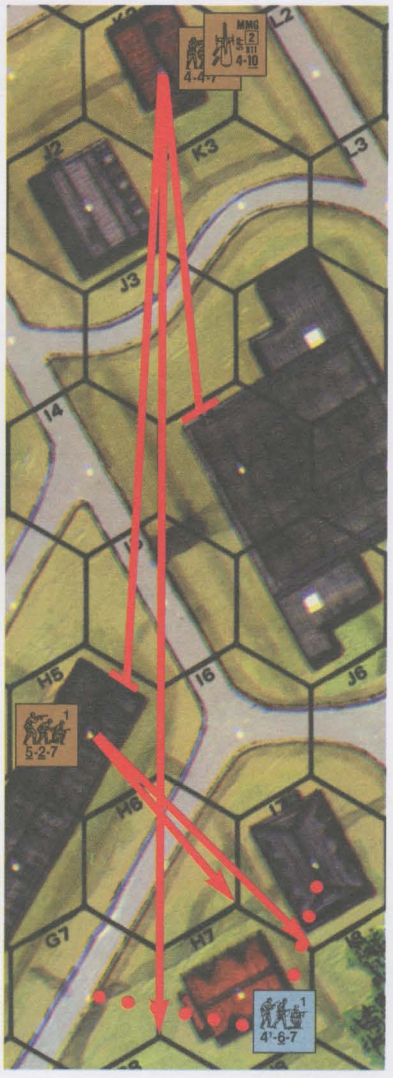
8.12 MOVING WITHIN LOCATION: Any action that requires the expenditure of a MF/MP in a Location qualifies it as a target for Defensive First Fire even though it might not have entered that Location during that MPh. Examples of such expenditures include a vehicle changing VCA or (un)loading Passengers, Infantry leaving an entrenchment without leaving the Location, or placing SMOKE grenades (24.1) or a DC.

8.13 DEFENSIVE FIRST FIRE DRM: The -1 DRM for FFNAM/FFMO apply only to Defensive First Fire attacks, as do all To Hit Cases of J *[EXC: vehicle in Motion; D2.4]* of the Target Hit Determination DRM (C6.1) for ordnance.

8.14 FOLLOW-UP ATTACK: A unit broken or pinned by Defensive First Fire can be fired on again in its current Location by other same-phase Defensive First Fire attacks, but is attacked in its broken or pinned state. A unit that survives a Defensive First Fire attack with no effect can be fired on again in that same Location during its MPh before expending additional MF/MP, but only by different attackers or if it expended at least two MF/MP in that Location (see 9.2). A moving unit subject to FFNAM/FFMO which breaks is still subject to those DRM in that Location for subsequent Defensive First Fire attacks until *its* MPh ends, even if previously pinned (see 4.61 for Assault Movement).

8.15 SNAP SHOT: Any unit wishing to make a Small-Arms/MG Defensive First Fire attack may claim a Snap Shot if it can trace a LOS to an *entire* hexside (even if that hexside is part of a Blind hex) that was crossed by the moving unit in entering a on-board hex (even if the center dot of that hex is out of the firer's LOS) *[EXC: A Snap Shot cannot be taken at a unit while entering the firer's hex]*. The FFNAM/FFMO DRM cannot apply (even if the entire length of the hexside is along Open Ground), nor does the TEM of most other terrain in the target hex (C.5C; however a wall/hedge/SMOKE/rubble hexside/spine of a hex being entered/exited can modify a Snap Shot if crossed by the LOF on the way to the target hexside). Snap Shots are resolved as Area Fire. If affected by a Snap Shot, the moving unit is considered in the Location entered thereafter. Neither a MG that must change its CA (9.21), nor an ordnance weapon, nor a weapon using IFE/Canister can make a Snap Shot (see also B9.2 and C.5). A firer can make only one Snap Shot at a unit crossing a hexside, even if that unit is expending > one MF to enter the hex, but may do so after other (even non-Snap-Shot) attacks.

EX: The 5-2-7 in 1H5 has a LOS to both H7 and I7, but rather than firing at the 4-6-7 as it Assault Moves to H7 from I7 with five FP and a +2 TEM, it prefers to take a Snap Shot along the H7-I7 hexside with 2½ FP and no TEM. Now assume that the 4-6-7 did not use Assault Movement and continues to move by entering G7. The 4-4-7 in K2 does not have LOS to either H7 or G7 (because of the buildings in J4 and H5 respectively) but it does have a LOS along the entire H7-G7 hexside, and therefore may take a Snap Shot at the 4-6-7 as it crosses that hexside with 1 FP choosing not to use its MG (4 ÷ 2 [Snap Shot] = 2 ÷ 2 [Long Range] = 1). If a wall existed at H7-H6/G7-H6, the Snap Shot from K2 would have to add a +2 DRM. If the 4-6-7 had started in H7 and Dashed through G7 to G6, the 4-4-7 could use its MMG to take a Snap Shot with 1 FP (4 ÷ 2 [Snap Shot] = 2 ÷ 2 [Dash] = 1). If hexes G7, H7, and I7 comprised a Level 1 hill, both Snap Shots would be subject to Height Advantage TEM.



© 2000 Multi-Man Publishing, LLC

8.2 RESIDUAL FIREPOWER: When a unit is attacked by Defensive First Fire/Subsequent First Fire/FPF, the target Location in which the attack is resolved (even if in Bypass) is marked with a Residual FP counter equal to half (up to a maximum of 12 after adjustment as per 8.26; FRD) of the highest IFT FP column used for that attack. If the attack includes a To Kill DR vs a vehicle, Residual FP is created in the same manner *[EXC: If AP (unless fired by a MG), ATR, APCR, or APDS was used, or if a Dud (C7.35) resulted, no Residual FP is created]*. Thereafter, any unit entering (or expending MF/MP in) that same Location in the same MPh is attacked on the IFT with the FP represented by that Residual FP counter, a new IFT DR, and any applicable FFMO/FFNAM DRM. A unit expending MF/MP to leave a Location is not subject to Residual FP attack in the Location it is leaving. All non-hexside TEM and SMOKE/FFE-Hindrance DRM of the target Location apply to a Residual FP attack (even vs Bypassing units). Remove all Residual FP counters at the end of the MPh.

8.21 No more than one Residual FP counter can be placed in a Location (although Fire Lane Residual FP is not a Residual FP counter and therefore can co-exist with other Fire Lane counters or Residual FP counters; 9.222). However, a larger Residual FP counter subsequently earned from a larger qualifying IFT attack can replace a smaller Residual FP counter. Residual FP can attack even units using Bypass (or those who must be attacked at a particular vertex) in the Residual FP Location.[12] Similarly, fire at a unit using Bypass leaves Residual FP in the entire obstacle Location, but fire that cannot affect units IN a Depression leaves Residual FP only on a Crest counter or bridge and can affect units in that hex only at/if crossing that higher level.

8.22 RESTRICTIONS: Residual FP can never form a FG; i.e., it must always attack alone. Existing Residual FP is always the *first* Defensive First Fire attack allowed against a moving unit in its current Location during its MPh. A Collateral Attack never leaves Residual FP but the attack that causes it may. OBA and minefields never leave Residual FP because they attack any unit that enters the minefield or FFE Blast Area (C1.5).

A unit can be attacked by Residual FP only once per Location *[EXC: if, since that first Residual FP attack, the Residual FP has increased in strength or the unit is subject to more-negative-DRM/less-positive-DRM, it will be attacked again by that Residual FP upon further MF/MP expenditure]*. However:

- MF/MP expended "simultaneously" (e.g., two MF to enter a building, two MF to cross a wall and enter Open Ground, eight MP for a truck to ascend a Crest Line, etc.) do not cause multiple Residual FP attacks. Expending MF/MP for separate activities (e.g., one MF to enter a hex plus one MF to place SMOKE grenades) is never considered a "simultaneous" expenditure (8.1).
- Residual FP does not attack until any activity that a MF/MP expenditure allowed is completed (e.g., placing SMOKE grenades, SW Recovery, Searching, firing a Smoke Dispenser, etc.) *[EXC: entering a vehicle; (un)hooking; D5.43]*.
- An attack vs a pillbox never leaves Residual FP in the pillbox Location, nor in the non-pillbox Location of that hex unless the attack could affect the entire hex (e.g., Small Arms, Area Target Type, etc.).

8.221 MALFUNCTION: Residual FP is not gained for an attack by a malfunctioning weapon, nor by a unit that makes a Small-Arms-attack Original 12 IFT DR while suffering from Ammunition Shortage (19.131). Attacks by Residual FP *[EXC: MG Fire Lane; 9.223]* are never subject to malfunction or Ammunition Shortage.

8.222 vs AFV: Residual FP has no effect vs an AFV except Collaterally (D.8) vs any Vulnerable PRC.

8.223 SNAP SHOT: A Snap Shot does not leave Residual FP.

8.224 COWERING: Residual FP attacks are not subject to Cowering. However, the amount of Residual FP formed by a Cowering attack is usually reduced since Cowering reduces the IFT FP used for the attack. *Once placed, Residual FP is never halved or reduced for any reason* (including Dashing or concealed targets).

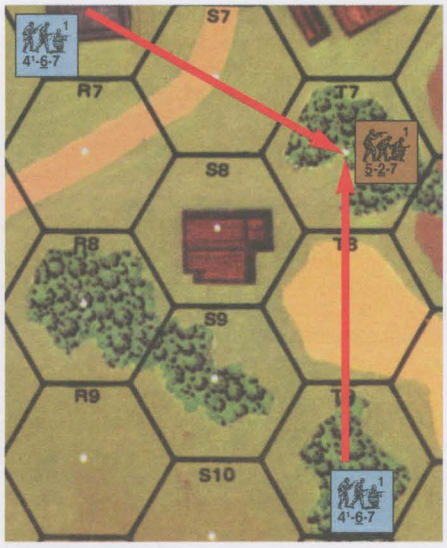
8.23 ROF: A weapon does not automatically leave Residual FP if it retains a Multiple ROF (9.2, C2.24). In essence, placement of a Residual FP counter always ends a unit's/weapon's Defensive First Fire attacks for that MPh *[EXC: Subsequent First Fire (8.3), FPF (8.31), Intensive Fire (C5.6)]*. The decision to forfeit possible remaining First Fire capability in order to leave Residual FP must be made immediately after resolving its attack. If a player decides not to leave Residual FP for a weapon so as to preserve its Multiple ROF, a Residual FP counter can still be placed in the Location attacked if the weapon used was part of a FG, but the Residual FP is based on the FP used by the FG's other units that do (or choose to) not retain a Multiple ROF.

EX: A 4-6-7 squad and a MMG make a 9 FP Defensive First Fire attack vs a unit in Open Ground. The colored dr of the IFT DR is ≤ 2. To retain his Multiple ROF for the MMG, the German player opts to leave no Residual FP with the MG, but the squad still leaves two Residual FP in the target Location.

8.24 SPRAYING FIRE: Any squad, Gun, or MG allowed to place Residual FP may place an appropriate Residual FP counter in each of the affected Locations when using Spraying Fire—even where no enemy unit is present (9.52).

8.25 ORDNANCE: An ordnance weapon must secure a hit in order to exert Residual FP. However, once the Residual FP has been placed its effect is automatic; newly arriving units do not have to be "hit" again to be affected by it (see 8.23). Neither Intensive Fire (C5.6), AP-type ammo (see 8.2), nor PF/PFk (C13.31) leaves Residual FP.

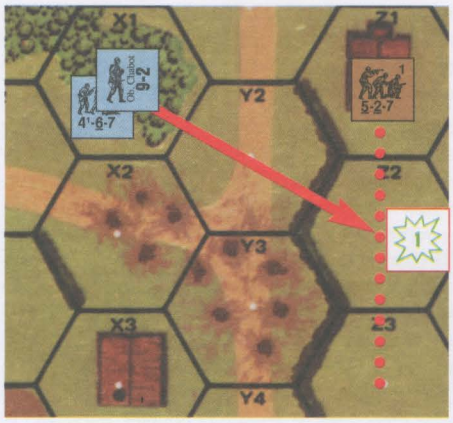
8.26 EFFECT OF DRM: The amount of Residual FP left by any attack is reduced by one IFT column for each positive DRM *caused solely by conditions outside (including CX, BU, Stun, leadership modifier, or hexside/bridge TEM of the target Location which modified (or could have modified; B9.31) the To-Hit/IFT DR, but excluding Height Advantage and LV DRM (E3.1))* the target hex (e.g., a 6 Residual FP counter is flipped over to the 4 FP side for a +1 DRM or changed to a 2 Residual FP counter for a +2 DRM *[EXC: Fire Lane; 9.22]*). Negative DRM (such as those for leadership, FFMO/FFNAM, and Bore Sighting) never affect the amount of Residual FP left in a hex *[EXC: Air Bursts increase the amount of Residual FP left by one IFT column]*.



8.26 EX #1: A four-FP Defensive First Fire attack from 3R6 to T7 leaves two Residual FP in T7 despite the +1 TEM of the woods, but a four-FP First Fire attack from T9 to T7 leaves only one Residual FP in T7 due to the +1 Hindrance DRM caused by the grainfield in T8. Only the larger of the two Residual FP counters remains in the hex.

(See 8.26 Example #2 at the top of the next page.)

© 2000 Multi-Man Publishing, LLC



8.26 EX #2: A 4-6-7 in 3X1, directed by a 9-2 leader, has fired on a moving unit in Z2 with a total DRM of -2 (-2 [leadership] +1 [hedge TEM] -1 [FFNAM] = -2) and eliminated it. However, for Residual FP purposes only the +1 TEM for the hedge is considered—resulting in one Residual FP being placed in Z2. A 5-2-7 now enters Z2 from Z3 without Assault Movement and is attacked on the 1 FP column with a -2 DRM for FFNAM/FFMO. The hedge does not negate the FFMO DRM because the Residual FP was already reduced by the hedge when it was initially placed in the hex. The Residual FP DR is 8 and has no effect. Assume there was a 2 squad foxhole in Z2 with an entrenched 6-2-8 and unpossessed MG. If the 5-2-7 were to enter the foxhole it would not be attacked again by the Residual FP. When the 6-2-8 expends a MF to Recover the MG, it is attacked by the 1 FP column with a total +1 DRM (+2 [TEM] -1 [FFNAM] = +1) despite the fact that the 4-6-7 doesn't have LOS to a non-adjacent unit entrenched behind a hedge. If the 6-2-8 then exits the foxhole, it would be attacked again by the Residual FP since it is becoming more vulnerable with a -2 DRM for FFNAM/FFMO.

EX: A hit with a 60mm mortar attacks an Open Ground Location on the 4 FP column and leaves 2 Residual FP. If the attack had been vs a woods Location subject to Airbursts, it would leave 4 Residual FP, and Infantry moving through the woods would receive the +1 TEM vs the 4 FP Residual attack. If the attack had been through a hedge hexside, the Residual FP would be unaffected by the zero Indirect Fire TEM of the hedge (B9.34).

EX: A 4 FP attack traced through a wall hexside yielding a +2 TEM leaves no Residual FP (2 Residual FP reduced to 1 Residual FP by a +1 TEM and reduced to 0 Residual FP by the second +1 TEM).

8.3 SUBSEQUENT FIRST FIRE: A DEFENDING *Infantry* unit already marked with a First Fire counter may Defensive First Fire again during that MPh as Area Fire by flipping its First Fire counter over to the Final Fire side. Such fire can leave Residual FP but if using a MG/IFE is treated as Sustained Fire and penalized accordingly. Only Small Arms *[EXC: MOL]*, MG, and IFE can be used as Subsequent First Fire. Subsequent First Fire cannot be attempted against any target at a range > that to the closest armed, Known enemy unit, nor outside the firer's Normal Range. Like Defensive First Fire, Subsequent First Fire options are MF/MP dependent; i.e., if the moving unit expends only one MF and draws Defensive First Fire, that Defensive First Firer cannot immediately Subsequent First Fire at it until it expends another MF. The same unit/weapon can never fire on a moving unit in the same Location more times than the number of MF/MP expended (FRD, but a minimum of once per hex) in that Location during that MPh (see 9.2). Whenever a unit uses Subsequent First Fire, it must use all MG/IFE in its possession (up to the unit's normal operation capabilities; 7.35-.353) as Subsequent First Fire or forfeit their use for the remainder of that Player Turn (barring FPF); a squad may not split its usable inherent FP from that of its MG/IFE during Subsequent First Fire unless it opts to not use the remaining FP/SW at all. A Multiple-ROF weapon cannot be fired more than once per Subsequent First Fire attack.

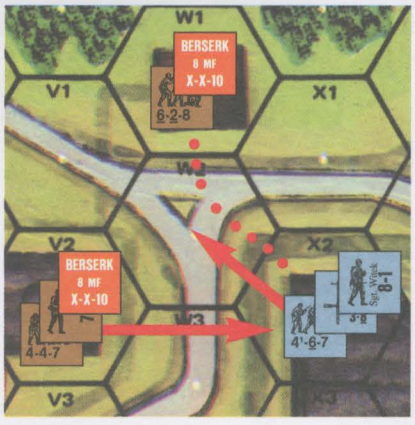
CC **8.31 FINAL PROTECTIVE FIRE (FPF):** FPF is a Subsequent First Fire option available only to DEFENDING *Infantry* already marked with a Final Fire counter[13] which wish to use their Small Arms *[EXC: MOL]*/MG/IFE to attack ADJACENT or same-hex moving ground units in the ATTACKER's MPh. All usable MG/IFE possessed by that unit (up to the unit's normal operation capabilities; 7.35-.353) must be fired (even if not previously marked with a Final Fire counter) and are subject to Sustained Fire penalties. A unit using FPF may form a FG with units not using FPF, but only those units using FPF are affected by its adverse affects. FPF is a combination of Area Fire and PBF (or TPBF), and also involves considerable risk to the firer. Immediately after normally resolving the FPF attack vs the moving units, the firer's Original IFT DR is modified only by any applicable leadership DRM and is used as a NMC against the firing unit(s) using FPF (including any directing leader). Whenever a Casualty MC (10.31) or Heat of Battle (15.1) applies to this NMC and ≥ 2 units are involved, use Random Selection to determine which unit is affected. The target of the FPF attack is attacked normally even if the FPF DR also breaks or pins the firer. Provided it does not break, there is no limit to the number of FPF attacks a unit may make, other than the number of moving units and the MF they expend (as in 9.2) moving ADJACENT to or in the firer's hex (thus affording the DEFENDER the opportunity to attack them). Any MG/IFE possessed by a unit using FPF is marked with a Final Fire counter regardless of its ROF—even if it had not fired previously in that MPh. Units broken by FPF in a Location containing enemy units are eligible to rout out in the ensuing RtPh. After a TPBF FPF attack, all non-Meleeing co-occupants of that Location are marked with a CC counter to show that they are not yet in Melee.

8.311 RESTRICTIONS: A unit eligible to use TPBF vs a Known enemy unit *[EXC: unarmed/unarmored vehicle; 7.212]* cannot use FPF vs an adjacent unit. Infantry manning ordnance cannot fire it during FPF *[EXC: OVR Prevention; C5.64]* but must add their inherent FP to the FPF attack.

8.312 TPBF: An armed, unbroken *Infantry* DEFENDER not in Melee *must* after all Residual-FP/minefield/OBA attacks then immediately attack any Infantry/Cavalry MMC unit that enters its Location during the MPh whether it uses Defensive First Fire, Subsequent First Fire, or FPF *[EXC: A SMC with a MG/IFE already marked with a First Fire counter may not use Subsequent First Fire or FPF because it cannot use Sustained Fire; 9.3]*. See also OVR; D7.2. All such FPF and any Defensive/Subsequent First Fire must be combined into one Mandatory FG (7.55).

8.4 FINAL FIRE: That portion of Defensive Fire which occurs during the DFPh is called Final Fire. During Final Fire any of the DEFENDER's units/weapons that are *not* marked with a First, Final, Intensive, or No Fire counter may fire. Any such units/weapons that *are* marked with a First Fire counter may also fire again (by flipping their First Fire marker over to the Final Fire side), but as Area Fire and only at units in an adjacent (or same) hex, therefore also possibly benefiting from PBF (or TPBF). A unit/weapon already marked with a Final Fire counter cannot fire during Final Fire. Final Fire affects all applicable units in a target Location—not just those that may have moved—but without any modifiers for FFNAM/FFMO.

8.41 MULTIPLE ROF: Any Multiple-ROF weapon which is *not* marked with a First, Final, Intensive or No Fire counter (even though it may have fired during First Fire) is still entitled to multiple attack possibilities during Final Fire, and at any target, not just adjacent ones. Any weapon marked with a First Fire counter and capable of Intensive Fire (C5.6) or Sustained Fire (9.3) may use such for one additional attack during Final Fire only vs adjacent or same-hex targets.



EX: It is the Russian MPh and all three Russian units are berserk (15.4). The 6-2-8 starts the MPh by charging the 4-6-7 in 1X2, and is First Fired upon in W2 by the 4-6-7 and its LMG directed by the 8-1 leader (14 FP and a -3 DRM). The Original 6 DR on the IFT results in a "K/3" which Reduces the 6-2-8 to a 3-2-8 HS but fails to eliminate the resulting 3-2-8 HS when it passes the 3MC due to its berserk Morale Level of 10, so it enters X2 where it must be fired on again (8.312) using Subsequent First Fire with 10½ FP

© 2000 Multi-Man Publishing, LLC

(7 × 3 [TPBF] = 21 ÷ 2 [Area Fire] = 10½) and a +1 DRM (+3 [TEM] -1 [FFNAM] -1 [Leadership] = +1), and with the LMG's B# reduced by two (invoking A.11) even if it retained its multiple ROF (9.3). The attack causes a NMC which the 3-2-8 passes. However, the German units and LMG are now marked by a Final Fire counter. The German units cannot fire outside their Location as long as the 3-2-8 occupies it too (7.212). Because the 3-2-8 expended two MF to enter X2, the German stack may attack it again (this time using FPF), but declines.

The berserk 4-4-7 and 7-0 leader now charge into X2, where they are first (8.22) attacked by the four Residual FP left by the previous attack and a +2 DRM (+3 TEM -1 FFNAM). This attack has no effect, however, and now the German units must attack with FPF (8.312). The German FPF attack is once again 10½ FP with a +1 DRM, but is made only vs the 4-4-7 and 7-0 since the 3-2-8 is no longer moving. The Final IFT DR is an 8, which results in a NMC vs the two Russian units, which they pass. The Original IFT DR of 7 results in no effect vs the Germans due to their leadership modifier which makes it a Final DR of 6. However, if the Original DR had been an 8 the German 8-1 would have immediately been pinned which in turn would have caused the 4-6-7 to break (due to the temporary loss of his -1 DRM; 7.831); had it been a 9 both units would have broken and would have to rout from the hex (assuming they survive the Russian AFPh). Because the Russians used two MF to enter X2, the Germans can repeat their FPF attack but are not obliged to and, given the dire consequences of rolling too high, decide not to attack further. During the AFPh the Russians will be able to attack with 10½ FP (7 × 3 [TPBF] = 21 ÷ 2 [AFPh] = 10½) and a +3 TEM, but with no leader direction (15.41-.42). Any broken units will rout out during the RtPh and all remaining units will engage in CC during the CCPh. If the LMG (only) were already marked with a First Fire counter when the 6-2-8 was first attacked in W2, that attack would use 11 FP ({4 [4-6-7 FP] + 1½ [LMG Area Fire]} × 2 [PBF] = 11) since the LMG would be using Sustained Fire, and the 8-1 would not be able to direct it (since the FG would now contain a new unit not directed by that Leader during Defensive First Fire; 7.53); the 4-6-7 would then be marked with a First Fire counter while the LMG's First Fire counter would be flipped to its Final Fire side. If on the other hand only the squad had First Fired previously, after the first attack on the 6-2-8 both the 4-6-7 and its LMG would be marked with a Final Fire counter (even if the German player opted not to use the LMG in that attack; 8.3).

Now assume that the LMG was possessed by a 2-2-8 crew in X2 with the squad and leader, and that the crew had held its fire until X2 was entered. The attack vs the 3-2-8 in X2 would be 15FP (4 [squad FP] × 3 [TPBF] = 12 ÷ 2 [Area Fire] = 6 + (3 [LMG FP] × 3 [TPBF] = 9) = 15) with a +2 DRM (leader direction is NA; 7.53). The crew could use either its inherent FP or the LMG. The crew or its LMG (now both marked with a First Fire counter) can elect to make a second attack in X2 as Subsequent First Fire with either its inherent FP or the LMG (thus flipping its First Fire counter to the Final Fire side) but has only three FP (or 4.5 FP if it uses the LMG) unless the squad joins the attack with FPF. The squad does not have to attack, however, because it has already fulfilled its requirement to do so when the Location was entered, although it has the option to do so. The German player, realizing that other berserk units will soon enter the Location and force another FPF attack by the squad, declines to attack again with the squad at this time—but because the crew will be unable to fire outside its Location (now occupied by enemy units), decides to use its Subsequent First Fire opportunity now. Both German units will be forced to use FPF vs the remaining berserk Russian units when they enter their Location, with the crew forced to use the LMG rather than its inherent FP.

9. MACHINE GUNS & SW MALFUNCTION

[A LMG counter represents a weapon additional to the inherent complement of such weapons present in a squad and accounted for by that squad's FP. The inherent LMG of a squad counter is not subject to any of the following rules, nor can it ever be turned into a LMG counter.]

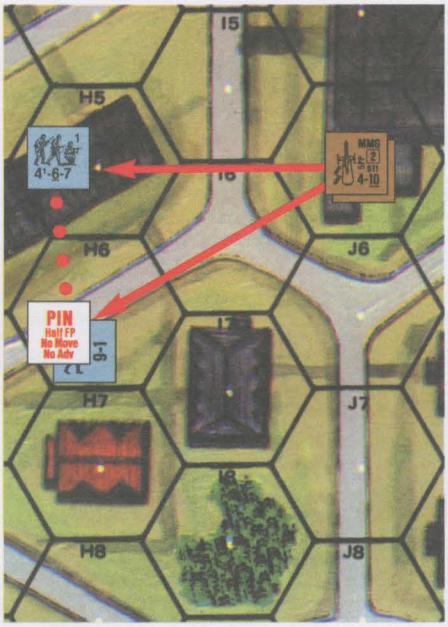


9.1 COUNTERS: A ½" MG counter is a SW and is dependent on Personnel to portage and fire it. Each SW MG has a two-number hyphenated Strength Factor; the number on the left is its FP and the number on the right is its Normal Range as measured in hexes. See also 4.4, 9.2, and 9.7-.72.

9.11 MMC USAGE: A squad may fire any one SW MG at no cost to its own Inherent FP, or any two SW MG at their normal MG FP effect at the cost of forfeiting its own Inherent FP for the current and any remaining fire phases in that Player Turn *[EXC: 7.353]*. Any other MMC may fire only one SW MG (regardless of type) with full FP, but in so doing forfeits its Inherent FP for any remaining fire phases in that Player Turn *[EXC: 7.353]*.

9.12 SMC USAGE: Unless otherwise prohibited, a single leader may fire any one SW MG as Area Fire, while two SMC stacked together may fire any one SW MG counter at full FP. If a leader fires/uses a SW-MG/any-other-SW (either singly or in combination with another SMC), he loses any leadership DRM he may have otherwise exerted during that fire phase, but the SW is exempt from Cowering. See 15.23 for Hero usage.

9.2 MULTIPLE ROF: Each SW (or vehicular MA) MG has a number encased in a square to denote its Multiple ROF, and therefore may conceivably fire many times each Player Turn (whether separately or as part of a FG), depending on how long its operator engages each target. This time factor is abstractly represented by the Original colored dr of the MG's IFT-Resolution/TH-(9.6) DR. If that colored dr is ≤ the MG's applicable ROF, the MG retains its Multiple ROF and may be fired again during that phase (A.15). However, during the MPh a DEFENDER MG cannot fire at the same unit in the same Location more times than the number of MF/MP expended by the target in that Location (FRD, but a minimum of once per hex). Once a MG has lost its Multiple ROF, it is marked with an appropriate Prep, First or Final Fire counter. Each MG in a multiple-MG FG retains or loses its own Multiple ROF based on the Original colored dr of the FG IFT DR (e.g., if a FG with a MMG and a LMG rolls a colored 2 dr on its IFT DR, the LMG has exhausted its Multiple ROF but the MMG has not). See also 4.41 and 21.12-.13.



EX: The Russian MG in 1J5 Defensive First Fires with a -2 FFNAM/FFMO DRM on the squad and leader stack as they enter H6 from H7 at a cost of one MF. The result pins the leader, but the squad continues on into H5. Having retained Multiple ROF with a 1 on the Original colored dr of its IFT DR, the MG may fire again, but not on the pinned leader (unless it waits until Final Fire and is still not marked with a First Fire or Final Fire counter) because only one MF was expended in that hex. (If the pinned leader had expended two MF in entering H6 and thereby allowed another shot, the -2 FFNAM/FFMO DRM would not apply to that second shot because the leader is now pinned; moreover, the MG would have to make its decision whether to continue firing at the pinned leader before the squad leaves the leader's hex, because thereafter the leader's MPh has ended and it is no longer subject to First Fire.) So the MG fires on the squad in H5 with a +2 DRM (-1 [FFNAM] +3 [TEM]) and breaks it while again rolling low enough on the colored dr of his IFT DR to retain its Multiple ROF. Because the now-broken squad expended two MF in entering H5, the MG may attack it once more (still with a -1 FFNAM DRM; 8.14) and does so—but this time loses its Multiple ROF and is marked with a First Fire counter. It cannot use Subsequent First Fire vs the broken squad because it has already fired on it twice and the unit had expended only two MF in its current Location. Should another unit move into the MG's CA (9.21) within a two-hex range, the MG could use Subsequent First Fire (and thus Sustained Fire; 9.3), but otherwise its attack opportunities are over for this Player Turn unless an enemy unit moves ADJACENT or into its current Location (see FPF; 8.31). The German MPh ends at this point, and the MG (not adjacent to an enemy unit) gets no Final Fire (8.4).



9.21 FIELD OF FIRE: Normally, a SW may fire in any direction with no detriment due to the facing of the counter. However, if a SW MMG/HMG in a woods/rubble/building hex fires and is entitled to another shot, it may continue to fire during that phase only inside the CA of the prior shot (which, unlike the CA of a Gun [C3.2], includes the MG's own Location regardless of the hexside [if any] crossed by the target unit entering that Location). If it fired up or down a stairwell within its same hex, its CA is defined vertically and

© 2000 Multi-Man Publishing, LLC

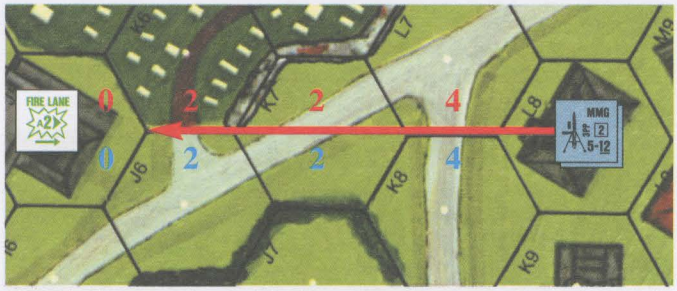
subsequent shots during that phase (other than vs its own Location) are limited to the same direction up or down the staircase. If necessary, place a CA counter on the MG (or alternately two hexes away to relieve any congestion caused by stacking), pointing to the center hexspine of that CA as a reminder of its now-fixed CA. Remove the CA counter at the end of the current phase *[EXC: a SW MMG/HMG with a fixed CA, and whose operator was pinned in the PFPh/MPh, retains that fixed CA until the end of the DFPh]*. The restricted-CA principles of 9.21 also apply to SW of the INF, RCL and 20L ATR types.

9.22 FIRE LANE: Whenever the DEFENDER declares a Defensive First Fire attack with a *Good Order* SW MG that is manned by unpinned *Infantry* (even as ordnance or as part of a FG), he may also declare a Fire Lane with that MG if it is not already marked with a First/Final Fire counter and is firing within its Normal Range (but not using TPBF) and at a same-level (B.5) target. If he does declare a Fire Lane, he must place a First Fire counter on the MG and, after resolving that First Fire attack in the normal manner, must also place a Fire Lane Residual FP counter in one hex along a Hex Grain; that Hex Grain must include the MG's hex and its First Fire target hex, but he may place the Fire Lane counter in or beyond the latter hex *[EXC: no Fire Lane is placed if the MG's manning Infantry Cowered, and/or used Subsequent-First-Fire (8.3-.31)/FPF, during that initial First Fire attack]*. Fire Lane FG are NA; i.e., each MG must create a separate Fire Lane even if using the same Hex-Grain/IFT-DR as another. An illegally placed Fire Lane counter is removed, but the MG is still marked with a First Fire counter. Each Fire Lane Residual FP counter contains an ID letter to match the A-F ID letter of its MG counter, and should be placed so that the arrow points back along the Fire Lane Hex Grain to the firing MG.

A Fire Lane Residual FP counter exerts a unique form of Residual FP in its Location, and in every same-level (B.5) Location of the Fire Lane Hex Grain between that counter and the MG, that is within the MG's Normal Range and in the LOS of its manning Infantry (when tracing their LOS to the hex center dot). However, neither NVR (E1.1) nor any SMOKE/brush/grain/marsh/FFE/LV-(E3.1)/DLV-(F11.6)/Dust-(F11.794)/hut-(G5.21) Hindrance affects LOS for Fire Lane placement/attack purposes. A Fire Lane's Residual FP is equal to the FP column to the left of the FP column normally used by that MG's FP *[EXC: PBF doubles the reduced FP in the ADJACENT hex; Fire Lane Residual FP TPBF is NA (9.223)]*. A MG which has established a Fire Lane may not fire again until the DFPh *[EXC: if its Location is entered by an enemy unit; 9.223]*; see 9.3.

9.221 ALTERNATE HEX GRAIN: A Fire Lane may also be declared along an Alternate Hex Grain, which is a string of connected hexes in which the Fire Lane's LOF (i.e., a line drawn between the first and last center dot) lies along a hexspine of the first hex. Whenever that LOF lies along a hexside, the Alternate Hex Grain includes the hex either to the left *or* to the right of that hexside. If that LOF lies along more than one hexside, the Alternate Hex Grain consistently includes the hexes on one side (either left or right). When placing a Fire Lane Residual FP counter along an Alternate Hex Grain, the DEFENDER must declare whether that Alternate Hex Grain will include the left- or right-side hexes, but must place the counter itself in a hex with a hexspine that points directly back to the MG.

A unit crossing a hexside to enter/exit a Location where an Alternate-Hex-Grain Fire Lane exerts Residual FP may be attacked by it as a Snap Shot, provided the hexside being crossed lies along the Fire Lane's LOF *[EXC: the Snap Shot is NA if that Fire Lane has already attacked that unit in the Location it is exiting; the Snap Shot FP of a Fire Lane is not halved as Area Fire]*. If the Defender opts for the Snap Shot, its target (including any element of a target stack) cannot be attacked again by that Fire Lane in the Location it is entering unless it expends further MF/MP (but regardless of any +/- change in DRM) therein. If he forgoes the Snap Shot, the unit will still be subject to attack per 9.22 if entering a Fire Lane Location.



EX: This Fire Lane, using the left Alternate Hex Grain, exerts four Residual FP in 21K8 (due to PBF) as well as two Residual FP in K7 and J6. (If it were using the right Alternate Hex Grain, it would exert four Residual FP in L7 and two Residual FP in K7 and K6, but any non-PRC unit attacked in K6 would receive wall TEM; 9.222). Neither Fire Lane could affect J5, because the LOS to the center dot of that hex's Level 0 Location is blocked by the K6-J6-K7 wall vertex (9.22; B9.1). A unit Assault Moving from K6 to J6 can, at the DEFENDER'S option, be attacked using two Residual FP either as a Fire Lane Snap Shot (with Wall TEM; 8.15) at the K6-J6 hexside, or as a normal Fire Lane attack (with a -1 FFMO DRM) in J6. The latter is the better attack, but if a stone building existed in J6—or an obstacle in K8 blocked the firer's LOS to J6—the Snap Shot would be a better choice. A unit that *starts* its MPh in J6 by moving to K6 can be attacked by the Fire Lane only as a Snap Shot; however, if it were already vulnerable to Defensive First Fire in J6 it would undergo a normal Fire Lane attack there (thus prohibiting the Snap Shot), unless no LOS existed from the MG to J6 (in which case the Snap Shot would occur as it crossed hexside J6-K6 regardless of whether or not it *began* its MPh in J6).

9.222 RESIDUAL FP: Fire Lane Residual FP is treated as normal Residual FP except as stated otherwise. The Residual FP of a Fire Lane is never reduced by the effects of DRM (8.26). Because Fire Lane Residual FP is always traced from its source, the effects of Hindrance/hexside/bridge DRM are resolved as DRM to the Residual FP attack *[EXC: SMOKE/grain/brush/marsh/FFE/Heavy-(or denser)-Dust-(F11.794)/hut-(G5.21) Hindrances do not apply as DRM but do cancel FFMO; LV-(E3.1)/DLV-(F11.6) Hindrances do not apply as DRM]*. No CX/leader/hero DRM applies to a Fire Lane Residual FP attack. Fire Lane Residual FP attacks cannot cause the firer to Cower and need not be made if they could cause no effect. When a Fire Lane is placed due to a First Fire attack vs a unit using some form of Impulse movement (13.62; 25.232; D14.2; E11.2; E11.52), its Fire Lane Residual FP immediately attacks all other elements of that Impulse currently in any Location(s) where that Residual FP now exists.

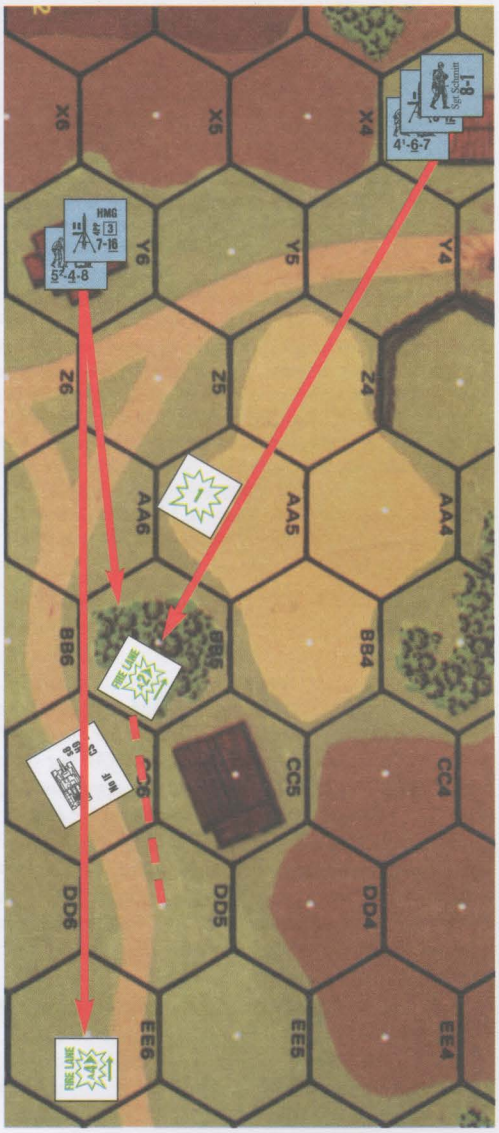
Fire Lane Residual FP cannot be used to increase the size of Residual FP from another source. In hexes where Fire Lanes intersect, *each* Fire Lane Residual FP attack must be resolved separately (in an order chosen by the firer), unless the first eliminates all targets. If Residual FP from a source other than another Fire Lane exists in a Location of a Fire Lane, it must be resolved separately prior to the Fire Lane Residual FP. (See Example at the top of the next page.)

9.223 CANCELLATION: A MG's Fire Lane Residual FP counter is removed only if the MG malfunctions, its manning Infantry is broken/pinned/eliminated, or at the end of the current MPh—whichever occurs first. The MG malfunctions whenever its Fire Lane Residual FP attack DR is also an Original Malfunction DR. A MG may cancel its Fire Lane in order to gain freedom to fire elsewhere (/its manning Infantry may use Subsequent-First-Fire/FPF after establishing the Fire Lane) only if a TPBF/CC-Reaction-Fire situation occurs (8.312/D7.21)—in which case the Fire Lane must be cancelled *[EXC: an unarmored vehicle with no PRC (7.212) or an armored vehicle with no Vulnerable PRC which does not end its MPh in the Location do not require cancellation]*, even if the unit entering the MG's hex does so across the hexside of the Fire Lane.

9.3 SUSTAINED FIRE: A MG that attacks using Subsequent-First-Fire/FPF (8.3/8.31), or during the DFPh while marked with a First Fire counter (8.4), is using Sustained Fire and as a consequence its B# is lowered by two (see A.11) in addition to its FP being halved as Area Fire. Sustained Fire cannot be used by a vehicular MG *[EXC: MA, as per 8.4]*, nor

© 2000 Multi-Man Publishing, LLC

if firing as ordnance, nor by a MG fired by a lone SMC. Sustained Fire always forfeits any chance for additional shots during the current phase *[EXC: FPF; 8.31]* and results in a Final (or Prep; E7.5) Fire counter being placed on the weapon, regardless of its Multiple ROF and the colored dr.



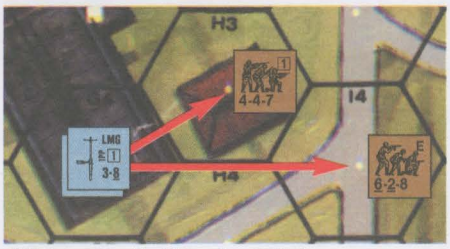
9.222 EX: The units in 3X3 declare a First Fire attack against a target using Assault Movement in AA5, and state that the MMG will create a Fire Lane. After resolving the attack with 8 FP and a 0 DRM (+1 [grain Hindrance] -1 [leadership]), the DEFENDER places a 2 FP Fire Lane counter in BB5 thereby leaving two Fire Lane Residual FP in Z4, AA5, and BB5 (plus 4FP in Y4). In addition, the squad's FP leaves one normal Residual FP in AA5 (8.21; 8.26). A unit subsequently using non-Assault in AA5 will be attacked first (9.222) by the one Residual FP with a -1 DRM (FFNAM) and then by the Fire Lane's two residual FP with a -1 DRM (FFNAM) but the 4-6-7 cannot Subsequent First Fire against it (9.223). If the 4-6-7 were CX the First Fire Attack would have a +1 DRM, reducing the *squad's* Residual FP to zero but not affecting the Fire Lane. If a +3 SMOKE were in X3 before/after the First Fire attack, the two Fire Lane Residual FP in BB5 would not be affected even though the SMOKE and Hindrance DRM from X3 to BB5 would total +6 (9.22; 24.8).

If the HMG declares both a First Fire attack against a target in BB5 and a Fire Lane, the latter must use the left Alternate Hex Grain because no other (Alternate) Hex Grain includes that firer's *and* target's hex. If the Fire Lane Residual FP counter is placed in EE6 it will leave four Residual FP in AA6, BB5, CC6 and EE6 (plus 8 FP in Z5)—even if the original target was concealed. A unit attacked by the four Fire Lane Residual FP in EE6 would receive a +1 wreck Hindrance DRM, while Infantry attacked in CC6 would receive a +1 wreck TEM. No Fire Lane Residual FP exists in DD5 because the 5-4-8's LOS to DD5's center dot is blocked by the woods in BB5. If the wreck were in DD5, its +1 Hindrance DRM would not apply vs a target in EE6 (D9.4). Since two Fire Lanes merge in BB5, both must be resolved unless the first eliminates all targets.

The existence of any obstacle(s) in Z5/Z6 would not prevent the HMG from establishing a Fire Lane to/past EE6 (assuming the LOF is not blocked), but would prohibit non-Snap-Shot Fire Lane Residual FP attacks in hexes that lack a LOS (as per 9.22) from Y6.

9.4 MANDATORY FIRE DIRECTION: MG fire is limited to a 16 hex maximum range unless an Infantry leader (even a 0 or + DRM leader) is directing that fire; moreover, MG attacks vs unconcealed Infantry at a range ≥ 17 hexes treat those Infantry as concealed unless they are broken/berserk/overstacked *[EXC: A CMG/IFE, which was usually rigidly mounted and equipped with a telescopic sight, does not require the presence of a leader to fire beyond 16 hexes, nor does it treat unconcealed Infantry as concealed]*. A MG using Mandatory Fire Direction/Long Range Fire has no effect vs armored targets. See 12.14 for an EX of usage.

9.5 SPRAYING FIRE: A MG (not vehicular MG except for MA) may use Spraying Fire instead of its normal FP at any two target Locations in its LOS except its own Location (7.212), provided each target Location shares a common hexside with the other. The TEM of each target Location and LOS Hindrances between the firer and each target apply individually to each attack although both attacks use the same Original IFT resolution DR. Spraying Fire is always Area Fire. Any Location not in the MG's LOS is unaffected by its Spraying Fire. The target Locations can be "adjacent" vertically in the case of building upper levels, but each must be within one level of the other and in the same hex. Spraying Fire can be traced to points other than the hex center when firing at units in Bypass (4.34) or using the road movement rate in a non-Open Ground hex (4.132).



EX: A German 5-4-8 squad with a LMG in 1G4 can trace LOS to both H3 and I4. Combining its inherent FP with the FP of the LMG, it attacks both hexes using Spraying Fire thus halving the FP vs each hex. H3 is attacked with 8FP (PBF) and a +2 TEM, and I4 with 4FP and no DRM.

9.51 vs VEHICLE: Spraying Fire (like all forms of Area Fire) has no effect vs an AFV, but can affect Vulnerable PRC and unarmored/partially armored vehicles in the same manner as Small Arms Fire.

9.52 RESTRICTIONS: Spraying Fire cannot be used in a FG attack unless all members of the FG are capable of Spraying Fire, opt to use it, and trace their LOS to the same two target points. Spraying Fire can be used vs an empty target hex (halved again for Area Fire) and an adjacent occupied hex to place Residual FP in both of those hexes. A unit marked with a First Fire counter which attacks during Final Fire may use Spraying Fire only if both of the attacked hexes are adjacent to the firer. Spraying Fire cannot be used vs descending paratroops.

9.6 VEHICULAR TARGETS: The process for resolution of MG fire vs vehicular targets is dependent on whether the vehicle Target Facing/Aspect is armored or not. If the Target Facing is armored, such fire is resolved on the AP To Kill Table after securing a hit on the To Hit Table; otherwise it is resolved on the ★ Vehicle line of the IFT and no To Hit DR is necessary. A non-captured MG To Hit DR always uses the black To Hit numbers regardless of nationality when firing as ordnance.

9.61 AFV KILL: Unlike Small Arms Fire, a MG attack may conceivably destroy a poorly armored AFV during a fire phase by attacking it alone (i.e., not as part of a FG) on the To Hit Table (using the Vehicle Target Type) and the AP To Kill Table. Such an attack must be made within Normal Range of the MG, without any form of halved FP penalty imposed, and predesignated as an AFV To Kill attack vs a specific AFV. If hit in an unarmored Target Facing, the AFV is attacked on the ★ Vehicle line of the IFT instead of on the AP To Kill Table. If the resulting To Kill DR is < the Final Kill Number for that Target Facing the AFV is eliminated (and burning if ≤ half of the Final Kill Number), and if the To Kill DR equals the Final Kill Number the AFV is Stunned (even if BU; D5.34). See C3.8 (Multiple Hits), C3.9 (Location of Hits) and D3.54 (Vehicular MG Fire vs AFV) for related information.

© 2000 Multi-Man Publishing, LLC

9.611 EFFECT vs PERSONNEL: A MG making a normal IFT attack has no effect vs armor other than its effect on any Vulnerable PRC. However, a MG To Kill attack can also affect Vulnerable PRC of that AFV Collaterally (D.8A).

9.7 SUPPORT WEAPON (SW) MALFUNCTION: Whenever a SW fires there is a chance it will jam or run out of ammunition. Each SW has an inherent B12 unless it has a Breakdown Number printed on its counter in the form "B#" or "X#". Whenever a SW participates in an attack in which the Original IFT resolution DR (or To Hit DR in the case of ordnance weapons) is ≥ that SW's B#, that SW malfunctions and is inverted (or if the SW has an X#, the SW has permanently malfunctioned and is removed). The attack which caused the breakdown is still resolved *[EXC: DC; 23.4]* but no subsequent fire is allowed from that SW until it has been repaired (see A.11). A white "X" is superimposed over the nationality color of the malfunctioned side of a SW/Gun as a reminder that it is malfunctioned and subject to repair. A SW/Gun without this white X on its reverse side cannot be repaired or requires placement of a special Malfunction counter.

9.71 MULTIPLE SW MALFUNCTION: Should a FG containing two or more SW roll ≥ a B# when resolving its attack, at least one of the participating SW whose B# has been rolled will malfunction, but not necessarily all of them. Random Selection is used to determine the one(s) affected. This rule also applies to multiple MG and OVR attacks by the same AFV (D3.7), as well as to multiple elimination due to rolling ≥ X#.

EX: A FG contains a German HMG using Sustained Fire (thus a B# of 10 and an X# of 12 [A.11]) and a LMG firing normally (B# of 12). If the Original IFT DR is a 10 or 11, the HMG automatically malfunctions. However, if the IFT DR is a 12, either the LMG malfunctions, the HMG is removed, or both—as determined by Random Selection.

9.72 SW/GUN REPAIR: Any Good Order unit may attempt to repair as many of its malfunctioned SW during any RPh as it can fire in one phase, by making a dr (Δ) for each. If the Repair dr is ≤ the Repair Number listed on the back of the counter (in the form "R#"), the SW/Gun is repaired. A dr of 6 eliminates the SW/Gun; any other dr results in no change during that Player Turn. A captured SW/Gun may never be repaired unless recaptured by its original side. Only a crew (not a Temporary Crew) can attempt to repair a Gun, and not while hooked up.

9.73 SW SELF-DESTRUCTION: A SW/Gun/vehicular-weapon may be destroyed or deliberately malfunctioned (instead of firing it) by the unit or inherent crew possessing it during any PFPh/DFPh in which the weapon and possessing unit would otherwise still be allowed to fire it (see 8.4 for DFPh restrictions). A unit/inherent crew may malfunction/destroy only as many weapons as it could fire were it not engaged in their malfunction/destruction. Such destruction counts as use of a SW.

9.74 RANDOM SW/GUN DESTRUCTION: When a Final KIA result occurs on the IFT *[EXC: to determine Gun Destruction due to ordnance/bomb/DC/OBA; see C11.4-.52]*, make a dr on the same column of the IFT for each SW/Gun possessed by the unit(s) eliminated by that KIA. Indirect Fire and OVR attacks can also destroy unpossessed weapons in the target hex. A -1 drm applies to the SW Destruction dr if the KIA was due to a fully-tracked AFV OVR, but no DRM carries over from the original KIA resolution. If the Final dr is a KIA, that SW/Gun is eliminated; if it is a K, that SW/Gun is malfunctioned (or eliminated if already malfunctioned). An overrunning, fully-tracked AFV which ends its MPh in a target Location may check for Random SW Destruction of unlimbered, NM, and RFNM (C10.2-.26) Guns and abandoned weapons even if the OVR did not result in a KIA unless the weapon is in an entrenchment. A fully-tracked AFV may make an OVR attack vs a Location devoid of Personnel to automatically destroy any Gun/SW therein not in an entrenchment, but must pay normal OVR MP costs. See 11.13 for Random SW/Gun destruction occurring in CC.







9.8 DISMANTLED (dm) SW: Any light mortar of ≥ four PP, 76-82mm mortar, or non-Russian HMG/MMG *[EXC: Russian .50 Cal. MG]* may have its PP halved (FRU) if in a dismantled state. A dm weapon is replaced with the appropriate dm SW counter. A weapon may be converted to an appropriate dm SW counter (or vice versa) by the unit possessing it during any PFPh/DFPh in which the weapon has not fired, but such conversion counts as use of that SW (including the use of all ROF). A unit may assemble/disassemble only as many weapons as it could fire were it not engaged in assembly/disassembly. 76-82mm mortars can be portaged by Infantry in the dm state at a cost of five PP apiece. A weapon may start a scenario dm at the owner's option *[EXC: if listed as dm it must start in that state]*. A malfunctioning weapon may be dismantled and transported, and repairs can be attempted while it is dm (using its normal, assembled R#). If captured, the captor may disassemble/reassemble a weapon as if it were his own. A mortar or MG Removed or Scrounged from a vehicle/wreck in which it was previously inherent armament is always removed as a dm SW if possible. A dm SW may not be fired until reassembled *[EXC: a German dm HMG/MMG may be fired as a German LMG[14]]*. Should a dm German HMG/MMG malfunction while firing as a LMG, it is marked with a MG Malfunction counter until repaired or removed (or assembled; in which case the inverted HMG/MMG counter can be used instead).

10. MORALE

10.1 MORALE CHECK (MC)/TASK CHECK (TC): Every Personnel unit has a basic morale rating printed on its counter. This is the number which the player must roll ≤ with two dice in order to succeed in performing some task or avoid damage inflicted by enemy fire. When an attack result dictates that a unit must check morale, it is termed a MC. Failure of a MC (by rolling > the Morale Level after modification) results in the breaking/Reduction/elimination of the unit. If a unit checks morale in order to be allowed to perform some action it is termed a Task Check (TC). Failure of a TC results in the inability of that unit to perform that task during that phase and prohibits the unit from attempting any other action during that phase *[EXC: FPF PAATC; D7.212]*. See 11.6 for effects of failing a PAATC.

10.2 LEADER LOSS MORALE CHECK (LLMC)/LEADER LOSS TASK CHECK (LLTC): Whenever a MC/TC is required, leaders must check before other units (with higher Morale Level leaders checking before lower Morale Level leaders). For each leader *eliminated* (whether by breaking when already broken, a mortal wound, or any other cause), after resolution of that attack (if any) all other friendly Personnel units *with a currently lower Morale Level* and in the same Location (or in the same moving stack, e.g., during Defensive First Fire) must take a LLMC *[EXC: Riders (13.52, D15.55), Passengers (D6.651), Climbers (B11.42), and units at a different level (2.8), or in CC (11.141) neither take or cause LLMC/LLTC (as a result of their breaking or elimination). Passengers take/cause LLMC/LLTC only to fellow passengers of the same vehicle (D6.651)]*. A LLMC is always based on the unit's current Morale Level, even if that unit is broken or has a reduced or increased Morale Level. Any negative leadership modifier of the eliminated leader must be reversed to a positive DRM and added to each LLMC. A leader eliminated/broken during Defensive First Fire does not cause other units in the same Location to take a LLMC/LLTC unless they were moving with him as one combined stack.

Should an unbroken leader break, all unbroken friendly Personnel units with a lower Morale Level in the same Location (or moving stack during Defensive First Fire) must take a LLTC *[EXC: if exempt from pinning]*. This LLTC is handled in the same manner as a LLMC except that if the LLTC is failed, the unit is pinned instead of broken.

EX: A Good Order 9-1 leader is stacked with a 6-5-8 and a 4-6-7 squad. Their Location is attacked resulting in a 1KIA. Random Selection determines that the leader is eliminated and therefore both squads are automatically broken (7.301).

© 2000 Multi-Man Publishing, LLC

The broken 4-6-7 must take a 1MC as its LLMC, which will Reduce it to a broken HS if it fails. The broken SS squad need not take a LLMC because its current morale (9) is not < that of the eliminated leader.

10.21 LEADERSHIP DRM: The only applicable DRM to a MC/TC DR *[EXC: LLMC/LLTC/WP/Bombardment MC]* is the leadership modifier of one available unbroken leader in the same Location (or moving stack in the case of Defensive First Fire). The leadership modifiers of multiple leaders in a Location or moving stack are not cumulative; the owner must choose which leadership DRM to apply (10.72). Normal, un-reversed leadership DRM are NA to LLMC/LLTC.

EX: A broken 8-0 leader, stacked with a 4-6-8 and a 4-6-7 squad, is eliminated by a fire attack which caused a 1MC result. Regardless of the outcome of that 1MC on the squads, the 4-6-7 must also take a NMC as its LLMC. If the leader were an 8-1, the 4-6-7 would have to take a 1MC as its LLMC. If the leader were a 9-1, both the 4-6-8 and the 4-6-7 squad would have to take a 1MC as their LLMC.

10.22 A leader may not apply his own leadership DRM to his own MC/TC, although he may apply the leadership DRM of an unbroken leader of *higher* morale which happens to be in the same Location or moving stack.

EX: A 9-1 leader which was fired on during the PFPh, yielding a "NMC" result on the IFT, must roll ≤ 9 to pass his NMC. However, if an unbroken friendly 10-2 leader is also in the same Location, the 9-1 can pass his MC with a DR ≤ 11. A 9-2 leader in the hex instead of the 10-2 leader has no effect because his Morale Level is the same as the 9-1. The 10-2 must past his NMC first and with no assistance from the 9-1. Had the 9-1 leader been moving and fired on by First Fire, the presence of a superior—but non-moving—leader in the same Location would not have aided the moving unit in its NMC.

10.3 MC FAILURE: Personnel which pass their mandated MC are unharmed (although possibly pinned; 7.8), but those which fail are immediately inverted and become broken *[EXC: broken/Heroic (15.2)/Berserk (15.42)/Unarmed (20.54)/Wading (G13.421) units, Japanese squads (G1.12) and leaders (G1.41), and LC Passengers (G12.13); see G14.32 for Infantry/Cavalry in Beach Locations during a Seaborne Assault/Evacuation]*. An already broken unit that fails a MC suffers Casualty Reduction (7.302). See D5.311 and D5.34 for Inherent Crews.

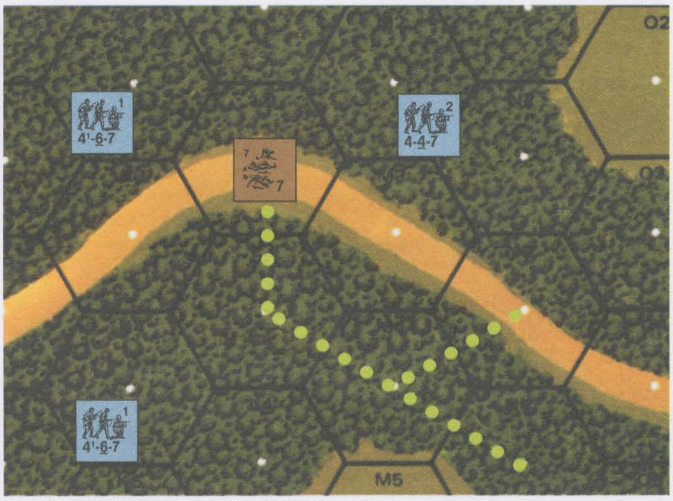
10.31 CASUALTY MC: If an unbroken Personnel unit rolls an Original 12 during a MC, it suffers Casualty Reduction and is broken (or eliminated if not subject to breaking) *[EXC: A hero/berserk-leader is wounded and must add +1 to his Wound Severity dr as if already wounded (17.11); see G1.14 for Japanese squads]*—after any unit Replacement which may also be required by ELR Failure (19.13). If a *broken* unit rolls an Original 12 during a MC, it is eliminated. See D5.341 for Inherent Crews.



10.4 BROKEN UNITS: Broken units are inverted and henceforth use the Morale Level printed on their reverse side for all MC/TC and Rally attempts they make until rallied and returned to their normal side. Broken units may neither attack in any way nor move except to rout during the RtPh or withdraw from CC. A broken unit may not portage anything in excess of its IPC, and prior to rout must abandon any items in excess of its IPC in its current Location—but must rout with any SW ≤ its IPC limits if it possessed such items when it broke. If it is carrying two or more SW which together are > its IPC, it must rout with a combination of SW of its choice exactly equal to its IPC or, failing that, equal to the highest number of PP it can portage which is also < its IPC. Once it starts its rout, a unit may neither Recover nor Abandon SW.

10.41 VOLUNTARY BREAK: Units within both the LOS and Normal Range of an armed, unbroken Known enemy ground—and/or ADJACENT to any unbroken enemy ground unit—may voluntarily break (even if pinned) at the start of the RtPh so as to be able to rout during that RtPh (but only if breaking will not cause their immediate Reduction or elimination).

10.5 ROUTING: During the RtPh a broken unit not in Melee may not remain in the same Open Ground hex in the Normal Range (10.532) and LOS of a Known non-Melee enemy unit/its-SW/Gun, nor—regardless of terrain—may it end a RtPh ADJACENT to or in the same Location with a Known enemy unit that is both unbroken and armed *[EXC: Night; E1.54]*. A leader with no SW is still considered "armed" for purposes of determining legal rout paths and enforcing Failure to Rout eliminations. Broken units must rout away (ATTACKER first—one unit at a time *[EXC: Voluntary Rout; 10.711]*) during that RtPh or be eliminated for Failure to Rout *[EXC: Surrender; 20.21]*. Otherwise, a broken *unit* must rout only if in a Blaze (B25.4). A broken unit *may* rout if currently under DM. All broken units (including Conscripts) other than wounded SMC have six MF for use in the RtPh; this amount can never be increased. A broken unit may end its RtPh in an Open Ground hex in the LOS and Normal Range of a Known enemy unit without Interdiction only if it has used Low Crawl (10.52) to increase the distance between itself and ≥ 1 nearest Known enemy unit(s) during that RtPh, but it still may not be ADJACENT to an unbroken and armed Known enemy unit at the end of the RtPh or it will be eliminated for Failure to Rout. Broken units may not use Bypass (4.3).



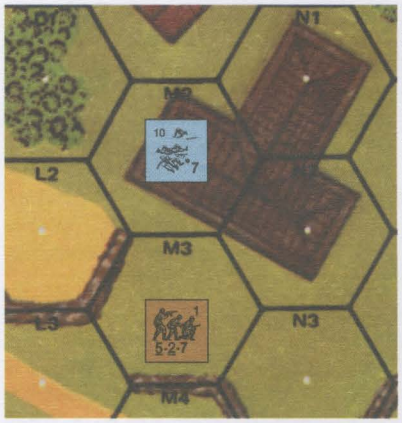
EX: German units Occupy 5M2, K2, and K4. The broken Russian unit in L2 must rout away from the Known enemy units in M2 and K2 without moving ADJACENT to them, so it routs to L3 where it now discovers a Known enemy unit ADJACENT in K4. It cannot remain there without being eliminated for Failure to Rout, so it elects to continue its rout to M4, where it may end its rout, or continue on to N3 or N4. If the German unit were in L3 or L4 instead of K4 the broken unit would be unable to rout away without moving ADJACENT to a Known enemy unit, and therefore would be eliminated or captured for Failure to Rout.

10.51 DIRECTION: A routing unit may never rout toward a Known armed enemy unit (even if that enemy unit is broken or disrupted), while in that enemy unit's LOS, in any way which decreases the range in hexes between the routing unit and the Known armed enemy unit *[EXC: Passengers, D6.1]*; nor may it move toward such an enemy unit after leaving its LOS during that RtPh; nor, if ADJACENT to a Known armed enemy unit, may it rout into another hex ADJACENT to that same enemy unit. A routing unit may never move ADJACENT to a Known enemy unit, unless in doing so it is leaving that enemy unit's Location. Otherwise, a routing unit may move toward an enemy unit. Assuming it can abide by the previous requirements, a routing unit must move to the nearest (in MF calculated at the start of its RtPh) building or woods hex (even if overstacked) unless that route is through/into a known minefield or FFE, or is not traversable (e.g., through a Blaze, unbridged Water Obstacle, Cliff, etc.). As long as it reaches that hex during a single RtPh, it need not use the shortest route, but as long as it follows the shortest path in MF otherwise, it may enter a shellhole/entrenchment/pillbox to avoid Interdiction even if it can no longer reach that woods/building hex in a single RtPh. A routing unit can rout into/out of/within a known minefield or FFE at its option, but is not forced to do so merely to reach the closest woods/building hex. At the start of its RtPh, a routing unit must desig-

© 2000 Multi-Man Publishing, LLC

nate its destination and must attempt to reach it during that RtPh *[EXC: if using Low Crawl]*. If a newly-Known enemy unit prevents this, a new destination is re-figured from that point. Upon reaching a building/woods Location not ADJACENT to a Known enemy unit, a routing unit must stop and end its RtPh in that building/woods Location even if overstacked *unless* the unit can directly enter another building/woods Location in its next entered hex (not necessarily the same building or through a continuous woods hexside). *[EXC: A broken unit in a building need not consider a hex of the same building in which it begins the RtPh as its closest building hex if it prefers to rout out of that building altogether and toward another building/woods hex—even if it must cross Open Ground or another building hex of the same building to do so. A routing unit may also ignore a building/woods hex if that hex is no farther from a Known enemy unit than its starting hex, even if it must rout through that now-ignored hex to reach its destination.]*

If no non-ignorable building/woods Location can be reached during that RtPh, a broken unit may rout to any terrain hex consistent with the above restrictions and need not rout toward the nearest woods/building Location. Any unit which routs through the Blast Area of a FFE is attacked in each Location of the Blast Area into which it routs as if it were a moving target during Defensive First Fire. A broken unit may continue its rout in a subsequent RtPh only if under DM.



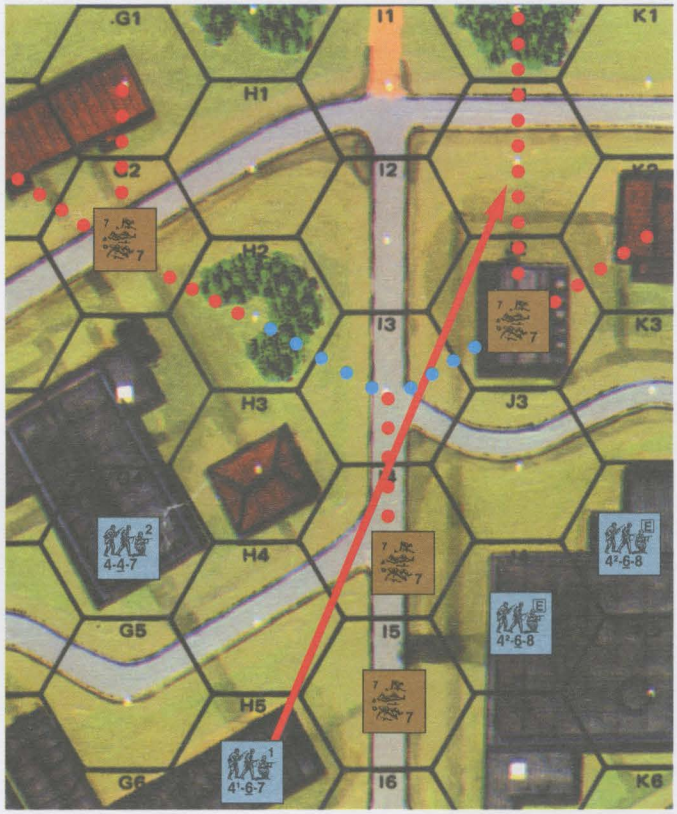
EX: A broken unit begins its RtPh in 3M2 at ground level with a Good Order enemy unit in M3. The broken unit can rout one hex vertically upstairs to M2 1st level and end its RtPh or, at its option, continue into N1 1st level or even to N1 2nd level via M2 2nd level. It is not ADJACENT to the enemy squad in M3 when on the 1st level or 2nd level of M2 or N2, as no unit can advance into an adjacent hex *and* move up a building level in an APh.

10.52 LOW CRAWL: Low Crawl is a rout of one Location which requires the entire MF allotment of the routing unit (but is still considered a form of Assault Movement should the routing unit enter a FFE Blast Area). A routing unit using Low Crawl cannot be Interdicted. Low Crawl cannot be used to enter Marsh or a Water Obstacle, or in any stream unless dry. Low Crawl cannot be used to exit an enemy-occupied Location *[EXC: Night (E1.54)]*. All other Rout provisions apply unchanged to Low Crawl, e.g., rout must still be towards the nearest woods/building Location within 6 MF.

10.53 INTERDICTION: A routing unit which enters an Open Ground hex without Low Crawl, in both the LOS and Normal Range of an unbroken enemy unit capable of fire on it in that hex with at least one FP without any form of LOS Hindrance, is subject to a NMC and everything that normally entails (see B27.41 and B30.41 for applications of a change of Location within the same hex). A routing unit which fails its Interdiction NMC suffers Casualty Reduction, although any remaining HS continues its rout thereafter. Interdiction does not affect other units in the same Location. Units are capable of Interdiction even if they have already exhausted their fire capability during that Player Turn. An Interdicted unit is also subject to pinning (7.8), to the extent that if pinned, it may not rout further during that RtPh and if pinned while still ADJACENT to a Known, armed, unbroken, enemy unit is eliminated for Failure to Rout. A broken unit may not be Interdicted more than once per Open Ground hex entered, regardless of the number of opposing units which can claim Interdiction. Once a unit begins its rout, it is expending MF; it cannot begin anew. Whenever a unit routs, it is restricted by the mechanics of movement (4.2) and must face the consequences of that move.

10.531 OPEN GROUND: For purposes of rout determination, Dash, concealment gain/loss, and Interdiction, an Open Ground hex is any hex in which *any* Interdictor could apply, during a hypothetical Defensive First Fire opportunity (regardless of what attacks it actually made in previous phases), the -1 FFMO DRM. Note, however, that First Fire does not actually occur during the RtPh and that routing units, unlike units in the MPh, may pay combined entry costs to enter Open Ground hexes containing entrenchments or a pillbox (see B27.41). The cost to enter/exit Fortifications within a hex are not part of the total MF cost used when calculating the nearest building/woods hex. Whether a broken unit pays such MF costs during its RtPh is up to the owning player and the speed with which he wishes to enter such terrain; he does not have to ignore the safer and higher MF cost option in order to reach cover in the same RtPh, although this is his option.

EX: A grain, brush, or orchard hex is not Open Ground because the -1 FFMO DRM does not apply. A shellhole, entrenchment or pillbox is not Open Ground unless the routing unit pays only the minimum MF to enter the hex. SMOKE or LOS Hindrances exerting a DRM, either in the Open Ground hex or between it and all potential Interdictors, allow rout transit of an otherwise Open Ground hex free of Interdiction. Similarly, if the routing unit can claim TEM, Interdiction cannot be claimed. An Entrenched unit, or a crew/HS manning an Emplaced Gun, is not in Open Ground for Failure to Rout (10.5) purposes.

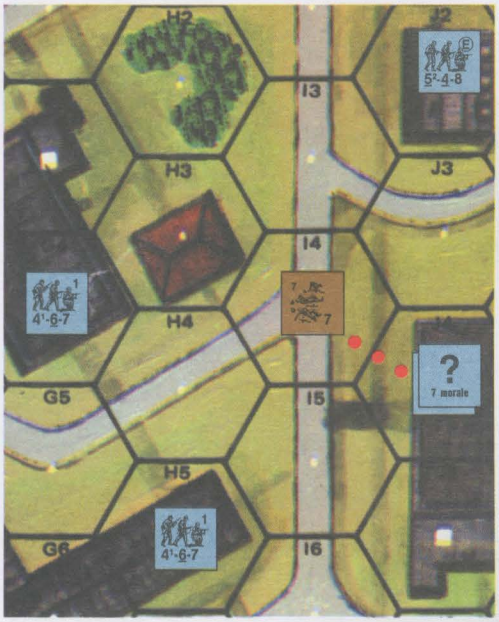


EX: It is the RtPh and each of the broken units is under DM and therefore eligible to rout. The 1G2 unit may rout to F1, G1, or even H2 because, although it would be moving closer to the enemy, it had not been in the LOS of any of the units it was moving closer to before routing to that hex. The J2 unit can opt to remain stationary or rout to building K2. It could also ignore K2 (because it is no farther away from a *Known* enemy unit than its present position) and rout to the J0 woods instead, but it would be subject to Interdiction in J1 from the 4-6-7 in H5 unless using Low Crawl to J1. The I5 unit cannot rout because any move it made would be ADJACENT to a Known enemy unit; consequently, it must surrender (20.21) or be eliminated at the end of the RtPh for Failure to Rout if No Quarter (20.3) is in effect. Assuming No Quarter is in effect, the broken squad in I4 may only rout to I3 because doing otherwise would be either moving ADJACENT to or decreasing the range to a Known enemy unit. In routing to I3, the squad announces that it is using Low Crawl. However, it also has the option to attempt to rout through I3 to H2 or J2, but at the risk of Interdiction in I3 (or, because those hexes are no farther away from the Known enemy in G4/K4 [10.51], it may continue to rout from H2, or J2, or directly from I3 toward H0/J0 subject to possible further Interdiction). Even if it failed the resulting NMC in I3, a broken HS would survive (barring a 12 Casualty MC DR) to enter H2 or J2. If No Quarter were not in effect, the broken squad in I4 would Surrender to the 4-6-8 in J4.

© 2000 Multi-Man Publishing, LLC

10.532 INTERDICTOR: One unit may Interdict any number of routing units and may Interdict the same routing unit in more than one hex. No weapon is effective for Interdiction purposes beyond its Normal Range or 16 hexes (whichever is less). If a Gun would have to change its CA in order to fire (if this were a fire phase), a positive DRM would usually come into effect and thereby disallow its Interdiction. Similarly, a CX or Encircled unit, or a unit using Spotted Fire or one in Melee cannot Interdict an enemy unit due to those limitations on its fire. An AFV cannot Interdict if it would have to change its VCA/TCA or use armament which is currently penalized by the +1 BU or +1 Stun DRM. A leader without a SW has no range and therefore cannot Interdict a rout hex. Any unit whose FP is halved *[EXC: mortars]* (Pin, Motion, Mounted Firer, etc.) may not Interdict. Naturally, in order for a SW or ordnance to Interdict a rout hex, that weapon must be functioning.

10.533 CONCEALMENT: Concealed units, since they are not Known, must be ignored by the routing player in determining his legal rout route. The presence of a concealed enemy unit in the closest building/woods hex (not in the direction of a Known enemy) to a unit that must rout, does not free the broken unit from its normal obligation to rout to that hex. Upon entrance of the concealed unit's Location, one concealed non-Dummy unit therein must become Known (i.e., lose its concealment, using Random Selection) in repulsing the routing unit (or in accepting its surrender; 20.21) to the last occupied hex (wherein the routing unit must end its RtPh—and be eliminated for ending the RtPh ADJACENT to a Known enemy unit; 12.15). A concealed unit can possibly claim Interdiction or force a routing unit to alter its route by becoming Known (i.e., by forfeiting its concealment) during that RtPh while in the LOS of the routing unit.



EX: The broken unit has to rout because it is in Open Ground in the LOS and Normal Range of a Known enemy unit. It must rout into J4, which is the closest building not closer to a Known enemy unit in its LOS. Entry to J4 is repulsed however, as the German squad loses concealment and becomes a Known enemy unit in the process. The broken squad is eliminated for Failure to Rout because it had to end its RtPh ADJACENT to a Known enemy unit. Had he preferred to take the Russian unit prisoner, the German could have opted to drop his concealment voluntarily and allowed the Russians to rout to him as his prisoners (20.21). The fact that he did not voluntarily drop his concealment does not make him subject to No Quarter (20.3) penalties.

EX: Now assume only the German squad in 1G4 is concealed. The Russian can rout to H3 and stop, or move on into G3 or H2—*unless* the German squad in G4 drops its concealment *before* the Russian routs to H3. The broken unit could even attempt to enter G4 causing the German unit to lose its "?" status, but this would result in the elimination of the broken unit for Failure to Rout. Once the Russian routs to H3 it will be eliminated only if it attempts to continue its rout into the concealed German's hex. Revealing its position after the Russian reaches H3 will not eliminate the Russian because it did not move ADJACENT to a Known enemy unit at the time of the Rout. The broken unit can even end its RtPh in H3 without being eliminated for Failure to Rout provided it does so before the German squad drops its concealment. If the German squad drops its concealment before the next unit begins to rout or the end of the RtPh (whichever comes first), the broken unit would have to continue its rout to H2 or be eliminated for Failure to Rout.

10.6 RALLY: Broken units of both sides may attempt to rally during any RPh if a Good Order friendly leader is present in the same Location *[EXC: Armor Leader (D3.4); see D6.651 for Passengers]*. In addition, Finns, broken leaders and crews as well as one MMC per Player Turn (18.11) may attempt Self-Rally without the presence of a Good Order leader. To rally, a broken unit must make a DR ≤ the morale number on its broken side. The leadership modifier of any Good Order leader attempting to rally a broken unit modifies the Rally DR. There is no penalty for failing a Rally attempt *[EXC: Fate; 10.64]*. No unit may attempt to rally more than once per Player Turn regardless of any Self-Rally capability/leader access. However, one leader may attempt to individually rally all the broken units in his Location.

10.61 TERRAIN BONUS: There is a -1 DRM to any Infantry Rally attempt which occurs in a building, pillbox, trench, or woods.



10.62 DESPERATION MORALE (DM): DM is a condition which afflicts any unit during the Player Turn it breaks (even if it breaks voluntarily) or any already broken unit which is subsequently attacked by WP, or enough FP (taking the *possibility* of Cowering into account) to possibly inflict at least a NMC result on the target. An effective Sniper attack causes DM to all broken enemy units in the same Location as the unit attacked—not just the attacked unit. To be considered fired upon by ordnance, a hit must have been achieved against the unit regardless of its FP effect, or a non-Smoke FFE must have been resolved in the hex. A broken unit is also automatically under DM whenever a Known armed enemy unit is ADJACENT to it (even if it does not end the phase ADJACENT to it) or when it starts a RtPh in Open Ground in the LOS and Normal Range (10.532) of a Known enemy unit. Place a DM marker on any unit under DM and remove it at the end of every RPh *[EXC: A unit may opt to retain its DM status provided it is not in a woods/building/pillbox/trench so as to guarantee its ability to rout again in the next RtPh. If overstacked in a woods/building, it may also opt to retain its DM status.] DM has no effect on any unit taking a MC, but does require a unit attempting to rally to add a +4 DRM (plus any leadership, terrain, and/or Self-Rally modification)*.

10.63 SELF-RALLY: All Personnel units whose Morale Level on the lower right of their broken side is encased in a square have Self-Rally capability. In addition, *one* MMC may attempt Field Promotion (18.11) as the first MMC Rally attempt of its own Player Turn. Any unit attempting Self-Rally (i.e., attempting to Rally without the presence of an unbroken leader) must add a +1 DRM. Self-Rally can never occur in a Location containing a Good Order friendly leader.

10.64 FATE: A broken unit which rolls an Original 12 DR while attempting to rally suffers Casualty Reduction and does not rally.



10.7 LEADERSHIP: Leaders have a two-number Strength Factor which consists of the leader's Morale (on the bottom) and his Leadership DRM (on the top). An unbroken Personnel leader may use its leadership rating to affect the performance of other Personnel in its Location *[EXC: A Passenger/Rider leader cannot Rally, direct, or otherwise aid units outside of its vehicle unless it is CE in an armored halftrack that is stopped (D2.13); likewise, a leader cannot affect units at a different level (2.8)]*. Leadership ratings are usually expressed as a negative number, or 0, or occasionally even +1 or +2. A leadership rating is treated as a DRM when used to influence *another* Personnel unit's performance, but can *never* be used to enhance its own performance nor to direct another unit's fire if the leader is firing a weapon himself (see also 7.53-.531). Leadership modifiers are not cumulative (i.e., the leadership modifiers of two or more leaders cannot be combined). A leader may attempt only one action per phase, and may use his leadership modifier (even if 0 or +1) more than once in the same phase only to attempt to rally more than one unit in a RPh, to direct Multiple ROF, Subsequent First Fire, Final Fire, or FPF attacks, and/or to assist units in the same Location or moving stack with a MC/Pin Check. The leadership rating of a leader is worsened by one whenever influencing Allied Troops of a different nationality. Allied Troops take a LLMC/LLTC based on the reduced leadership modifier due to the elimination/breaking of a higher-morale Allied leader in their Location.

© 2000 Multi-Man Publishing, LLC

10.71 RALLY: A broken leader may attempt Self-Rally, unless in the same Location *[EXC: Passenger/Rider leader as per 10.7 EXC]* with another unbroken leader. If more than one unbroken friendly leader is present in a Location, the player may choose which one will influence any Rally attempts in that Location. If the only leader stacked with a broken unit(s) is himself broken, those units may not attempt to rally (barring Self-Rally capability) unless the leader succeeds in rallying himself first. Having rallied himself, the leader may then attempt to rally any remaining broken units in his Location during that RPh.

10.711 VOLUNTARY ROUT: A non-berserk, non-pinned leader already stacked with a broken unit before it routs may elect to rout with the broken unit even though he is not broken. If he does so, the leader shares the broken unit's vulnerability to Interdiction and, although he does not have to take any Interdiction NMC himself, he is eliminated if the broken unit he is stacked on top of fails an Interdiction MC. He must remain with the broken unit throughout the RtPh, but is not considered broken and may add his leadership DRM to its Interdiction NMC. The leader, if already in possession of a SW, may portage it, but cannot improve the broken unit's portage capacity.

10.72 MANDATORY LEADERSHIP: A player cannot decline use of a non-zero (whether positive or negative) leadership modifier in the same Location or moving stack when performing a MC/TC or Rally attempt or Ambush, Concealment, Search Casualties, or Integrity Check dr/DR unless there is another leader present in the Location or moving stack whose leadership modifier he can substitute. However, a player can always opt to exclude leader direction in any attack it makes *[EXC: Armor Leader (D3.45); Leader Creation (18.12); MG Mandatory Fire Direction (9.4)]*.

FANATIC +1 MC ◊ NO: Disruption Cowering PAATC

10.8 FANATICISM: Fanaticism is evoked only by SSR or Battle Hardening to depict particularly heroic or desperate performances in a particular situation. A SMC created from an already Fanatic MMC (15.21, 18.2) is also Fanatic. Any unit classified as Fanatic has both its normal and broken Morale Levels increased by one and is not subject to Cowering, surrendering by the RtPh method (15.5 & 20.21), or PAATC. Fanatic troops are not subject to Disruption, although they can be Reduced/broken normally for all purposes of Unit Substitution (19.13).

Comprehensive Rout Example

(Please see Illustrations on pages A28-A29. For purposes of this example, no other hexes exist.)

Rout Phase Russian Player Turn (page A28 Illustration)

Russian Routs (ATTACKER routs first)

The pinned half-squad in P8 Voluntarily Breaks [10.41], which it must declare before any units rout. Before the routs of the non-Disrupted units, the Disrupted squad in Q2 must Surrender to the 4-6-7 in R1 despite having a legal rout path to P2 [19.12]. The Surrender is accepted, and Q2 is replaced by a squad-sized Unarmed MMC which is possessed by the 4-6-7 in R1. If this Surrender were rejected, the Disrupted squad would be eliminated and No Quarter would be invoked for the German side only [20.3].

The broken 4-4-7 on Level 2 of M2 does not have to rout; if it elects to, it could rout to any Location in its building or it could ignore its building entirely [10.51] and rout to M1. Routing to L1 or L0 is illegal because that would entail moving closer to the KEU (Known enemy unit) in J1. If it routed to the ground level of N1, it could not stay there because of the ADJACENT unbroken KEU in O1, and it could not continue on to N2, M1 or M2 because that would be moving closer to the KEUs it remembers seeing in J6, K3, and J1, and so would be eliminated for Failure to Rout. It therefore routs downstairs to the ground level of M2, dropping the HMG in M2 Level 2 because its IPC of 3 is not enough to carry the 5 PP weapon. Either SMC in the Location where the HMG was dropped can immediately attempt to Recover it (4.44); the Hero does so with a dr of 5. The 9-1 leader could rout with the squad [10.711], but elects to stay with the Hero to help man the HMG.

The broken 4-4-7 in J4 does not have to rout, but chooses to rout to K5 and L4 for 4 MF. Routing to K5 does not bring it closer to either of the KEUs in J6 or K3, and K6 was not Known to J4 at the time it entered K5. It cannot stay there because of the ADJACENT unbroken KEU in K6, but it cannot be Interdicted there because the 4-6-7 is CX [10.532] and K5 has a +1 Height Advantage TEM relative to K3 [10.531]. Even if the German leader in J6 was not Pinned, it could not Interdict by itself because it has no SW, let alone one capable of being fired at full effect by a lone SMC [10.532]. The 7-0 elects to accompany the broken squad throughout its rout using Voluntary Rout [10.711]. The routing units do not have to stay in L4 since that hex is no farther from the KEU in K3 as their original hex, but their only rout options at this point are to move upstairs to Level 1 or continue routing to M5 (which hex cannot be ignored as a rout destination). They elect to move upstairs to L4 Level 1 for their 5th MF and end their rout there.

The broken squad in L8 must rout since it is in the same hex as an unbroken KEU and not in Melee. It can ignore every building/woods Location on the map as being equidistant from the KEU in its own hex [10.51]. The first hex it enters while routing cannot be L9 or M8 since that would be moving ADJACENT to the unbroken KEU in M9. It cannot enter K9 from L8 since that would be moving closer to the KEU in J9. Therefore, the first hex it routs through must be K8 or L7. It cannot Low Crawl when leaving an enemy-occupied Location [10.52] and the squad in M9 as well as the AFV MG in L8 can Interdict the rout to either K8 or L7 because the +1 Height Advantage TEM does not apply when the LOS crosses the Crest Line traversed by the moving unit [B10.31]. Therefore, the broken unit cannot rout without being subject to Interdiction and since No Quarter is not in effect, it Surrenders [20.21], and the squad in M9 accepts the Surrender.

The broken 4-4-7 in M5 cannot rout because it is not DM [10.62]. The broken 4-4-7 in N3 becomes DM since it started the RtPh in Open Ground, LOS, and Normal Range of the KEU in O1 and must rout. However, it cannot rout toward any of the KEUs in O1, K3, or P5, so it is Eliminated for Failure to Rout [10.5]. The broken squad in building O5 does not have to rout since it is not ADJACENT to an unbroken KEU; it cannot legally rout toward any of the KEUs it sees in R1, K3, J6, or P5 and so stays in O5. The broken squad in R6 must rout because of the ADJACENT unbroken KEU in S6. Since it is Encircled, it must Surrender to the 4-6-7 in S6 despite having rout paths upstairs to R6 Level 1 or to Q6 [20.21]; its Surrender is accepted.

The HS in P8 (which Voluntarily Broke at the start of the RtPh) must rout since it is ADJACENT to the unbroken KEUs in Q8. It must choose N8 as its destination and routs there via O9, but it cannot stay in N8 because of the KEU in M9. It has enough MF remaining to reach M7, so it must attempt to do so since it is not Low Crawling; it routs to M7 via N7 (since entering M8 would be moving ADJACENT to M9). The broken unit cannot drop the Russian LMG since it is ≤ the HS's IPC.

The broken squad in S3 must rout because of the ADJACENT unbroken KEU in S2. It can ignore S3 Level 1 as a rout destination because it can ignore Locations of the building it starts in (Rowhouse hexes are considered separate buildings for rout purposes [B23.71]). It can also ignore R3 and P2 as being equidistant from the KEU in R1. Able to ignore all rout destinations within 6 MF, the broken unit is free to rout anywhere it can legally reach on the board [10.51]. It elects to rout to R3, expending 3 MF via rowhouse bypass at the S3/R3/S4 vertex. It cannot be Interdicted at that vertex because the S4 Grainfield Hindrance negates Open Ground relative to the German units in S5. From R3 it could spend 2 MF to enter the Shellholes in Q3 and avoid Interdiction from R1, or it could enter Q3 for 1 MF, risking Interdiction without the Shellhole TEM, but able to reach P2 with its last two Movement Factors should it survive the Interdiction Morale Check unpinned. It enters the Shellholes for 2 MF and ends its RtPh there. The enemy units in J6 are not Known to the broken unit in either S3 or R3; otherwise it could not rout to Q3. Even if Grainfields did not exist and the 4-6-7 was in Good Order by itself in S2, the squad could still rout to R3 via the S3/R3/S4 vertex without fear of Surrender because it has the *option* of routing to the first level of S3.

The broken squad in the R2 Foxhole must rout since it is ADJACENT to the unbroken KEUs in R1 and S2. Its rout options are restricted by not moving closer to the KEUs in J6 and not moving ADJACENT to the KEU in S2; its only rout option is to enter R3 for 3 MF (1 MF to exit the Foxhole plus 2 MF to enter R3). It could move upstairs to Level 1 but declines. It cannot be Interdicted as it exits the foxhole because (unlike in MPh/APh) it combines that MF expenditure with the cost of entering R3, which is not Open Ground [B27.41]. It could conceivably ignore R3 as a rout destination because that hex is equidistant from the KEUs in J6, but once it enters R3, it gains LOS to the KEUs in S5 and cannot continue its rout toward R5. It also cannot continue its rout into Q4 because that would entail moving closer to the enemy units it remembers seeing in J6, even though J6 is not in its current LOS.

The broken squad in S2 must rout because of the unbroken KEU in its own Location. Its only option is to enter S3 and move upstairs to Level 1 since it cannot remain ADJACENT to the unbroken KEU in S2 (whose CC counter is removed once the broken unit leaves its Location). It cannot use Rowhouse Bypass to enter R3 because that would entail moving closer to the KEUs it remembers seeing in J6.

The broken squad in R8 cannot rout because broken units cannot rout out of Melee; it must attempt to Withdraw from Melee in the upcoming CCPh [11.16].

© 2000 Multi-Man Publishing, LLC

Comprehensive Rout Example



If No Quarter were in effect for the Germans, the broken squad in R6 would not Surrender and would rout to either Q6 or upstairs to R6 Level 1. The broken squad in L8 would rout to L7 and suffer Interdiction there and any survivors would be unable to rout further without moving closer to the KEUs in K6 and Q8; unable to rout away from the ADJACENT unbroken KEU in L8, the broken unit would be Eliminated for Failure to Rout. The Disrupted squad in Q2 could rout to P1 (where it would then be Eliminated for Failure to Rout) or to P2 and then stop upon seeing the KEUs in J6. The other Russian routs would be unaffected.

German Routs (page A29 Illustration)

No German unit elects to use Voluntary Break. The broken squad in J1 must rout because of the ADJACENT, unbroken KEU in K1, but cannot rout to J2 because that would be moving closer to the KEUs which routed to the upper level of L4; it therefore surrenders to K1, dropping its LMG in J1 before doing so. The Guarding squad may immediately Deploy [20.5] despite being Russian [25.2]. The broken passenger in K3 does not have to rout (even if its vehicle were ADJACENT to a KEU); if it were to rout, it would be placed underneath the vehicle and end the RtPh there [D5.311].

The broken units in J6 must rout because they are in Open Ground, LOS, and Normal Range of the two SMCs manning the HMG in M2 Level 2. If the HMG were manned by just one SMC it would still force this rout but would not be able to Interdict [10.532]. The unbroken leader may not rout with the broken units because he is Pinned [10.711]; he would have had to use Voluntary Break in order to do so [10.41]. The routing units' only valid rout destinations are L9 and M9; they choose M9. They could Low Crawl to J7 on their way to M9 and end their routs there without being Interdicted by the Russian HMG, or they could attempt to reach M9 by risking Interdiction in J7. They must rout one at a time [10.5]. The first broken squad decides not to Low Crawl and is Pinned in J7 when it rolls

© 2000 Multi-Man Publishing, LLC



A

Comprehensive Rout Example



a 7 on its Interdiction MC and ends its rout there. The second squad also risks Interdiction in J7, rolls an 11 on the Interdiction MC and is Casualty Reduced (Unit Substitution caused by failing ELR does not apply to broken units, [19.11]). This HS continues its rout to K8, L8 (no Interdiction from the squad in M7 because the +1 AFV TEM negates Open Ground) and finally M9. The broken HS Low Crawls to J7 and ends its RtPh there without Interdiction [10.52].

The broken squad in P5 is not required to rout since it is not ADJACENT to an unbroken KEU. If it routs, it must choose Q5 or P6 as its destination since those hexes only cost 2 MF as opposed to 3 MF for Q6; once in Q5 it could continue on to Q6 or Q7 if so desired, or from P6 it could go to Q6. It could even attempt to enter R5 and strip the concealment of the Russian unit there (12.15) but would then be forced to end its rout in the last hex occupied before R5, where it would be eliminated for ending the RtPh ADJACENT to an unbroken KEU [10.533]. It therefore routs to P6 and stops. If there were a Good Order KEU in Q6, the squad would Surrender to it.

The broken squad in S5 (despite being DM) is not required to rout since it is not ADJACENT to an unbroken KEU. If it wanted to rout, it could not rout closer to the KEUs it sees in R3 and R8. If the 4-4-7 in R5 were to voluntarily drop its concealment or have it stripped by the squad routing from P5, the squad in S5 would then have no rout options and would be forced to Surrender to the 4-4-7 in R5.

If No Quarter were in effect for the Russians, the squad in J1 (and the one in S5, were the 4-4-7 in R5 to lose concealment) would be eliminated for Failure to Rout, and the other German routs would be unaffected.

© 2000 Multi-Man Publishing, LLC



11. CLOSE COMBAT (CC)

11.1 CC is a form of attack which can occur only during the CCPh *[EXC: vs Unarmed units (20.54), Reaction Fire (D7.2), Infantry OVR (4.152), TH-Hero Banzai Charge (G1.423)]* between opposing units in the same Location *[EXC: CC with units in a pillbox never occurs in the same Location although it does occur between units in the same hex; B30.6]*. Units in different terrain features of the same Location (such as foxholes) still engage in CC with each other. There are no TEM or LOS Hindrance modifications to a CC attack DR, nor does PBF/TPBF ever apply to CC. Unlike Fire attacks, CC is *usually* simultaneous, so both sides attack the other even if one or both is thereby eliminated.

11.11 RESOLUTION: The FP of attacking units is compared to the FP of those enemy units being attacked in order to achieve a ratio of attack-to-defense FP strength called odds. For example, if two 6-2-8 squads combine to attack a 4-6-7 squad the odds are 12-4, which is then rounded *down* to the nearest corresponding odds ratio printed on the CCT (EX: 7 to 4 would be 3-2; 11 to 2 would be 4-1; 4 to 15 would be 1-4). Once the odds have been determined, a DR is made for each attack. If the Final DR is < the Kill Number listed on the CCT under the applicable odds column, the attacked units are eliminated. A Final DR which equals the Kill Number listed on the CCT is a Partial Kill: one (or more) defending unit suffers Casualty Reduction as determined by Random Selection. A Final DR > the Kill Number has no effect. Normally the black Kill Numbers are used; see Hand-to-Hand CC (J2.31) for use of the red Kill Numbers.

11.12 MECHANICS: The ATTACKER specifies the order in which multiple Locations containing CC situations are to be resolved; each Location's CC for that Player Turn must be completely resolved before resolving CC in another Location. Barring sequential CC, each side in a Location must designate all of its attacks in that Location prior to the resolution of any of them (ATTACKER designating his first). The DEFENDER then designates all of his attacks, after which the ATTACKER resolves all of his previously declared attacks. The DEFENDER then resolves all of his attacks—even if those units have been eliminated, Reduced, or captured. Units may attack any unit or combination of units in the same Location *[EXC: SMC; 11.14]*, so long as no unit attacks or is attacked *[EXC: Infantry OVR (4.152) or CC vs/by a vehicle]* more than once per CCPh. All units in the hex do not have to be attacked, nor do all units have to make an attack. See also 11.19.

EX: Assume that, in the same Location, both players have three squads with a FP of four each, prior to Melee. Each player can choose to divide his combat in any of the following ways:

A. One big 1-1 attack (12-12) involving all six units, or

B. Three squads against one at 3-1 (12-4), or

C. Three separate 1-1 attacks (4-4) against each squad, or

D. A 2-1 attack (8-4) against one squad and a 1-2 (4-8) against the other two, or

E. A 2-1 attack (8-4) against one squad and a 1-1 (4-4) against one of the other two.

11.13 SW: A SW/ordnance counter may not be used in CC. Each Gun/SW counter possessed by a unit eliminated in CC may also be eliminated if the Original colored dr of that CC DR is a 1. The attacker makes a subsequent dr for each Gun/SW possessed by the eliminated unit and if this dr is ≤ the black Kill Number of that CC attack, the Gun/SW of the unit is eliminated also. All other SW of units eliminated or captured in CC remain in the Location unpossessed until Recovered (4.44).

11.14 SMC: Any SMC in CC has an inherent FP attack and defense strength of one. A SMC may attack alone, but if it does, it must also defend alone and if occupying a Location with other friendly Personnel it must announce its solo attack status (although not necessarily the unit it will attack) before the opponent designates his attacks. Any number of SMC may combine with a MMC or other SMC to make a CC attack *[EXC: vs vehicles; 11.5]* and to defend by adding their inherent FP together, but a SMC must attack with the MMC it is stacked on top of if it is to combine FP with any MMC. The player is free to rearrange his stack in a CC Location so as to change the MMC that ≥ 1 SMC is stacked with, but he must do so prior to both sides' declaration of CC attacks in that Location.

A SMC defends in CC as part of the group it attacks with by adding its inherent FP to the FP of the MMC stacked beneath it *[EXC: A Known SMC may never defend with a concealed unit unless that unit forfeits its concealment so as to defend with the Known SMC, or vice versa]*. A CC attack cannot single out one or more SMC to attack unless the SMC(s) attack(s) without an MMC, or they are attempting to withdraw (or conversely, to stand) without an accompanying MMC. Otherwise, the smallest increment which can be the subject of a single CC attack is a single MMC (plus any SMC stacked directly above it).

11.141 LEADER: One leader may direct the CC attack of the unit(s) it defends with (and any other units which join them in a combined CC attack) by applying his leadership DRM to the CC DR, in addition to adding his inherent FP (or increasing the CCV; see 11.5) to the strength of the attack. However, a leader may not use his leadership DRM to modify the CC DR of his own attack if he attacks alone or if any of the units attacking with him are berserk. Units in CC never take LLMC/LLTC.

EX: A German 4-6-7 squad and 8-1 leader are in the same Location with two Russian 4-4-7 squads. The German player attacks both Russians squads at 1-2 (5-8) and can eliminate them both with an Original DR < 5 due to the -1 leadership modifier. If the Original DR is a 5, at least one of the Russian squads is Reduced to a HS. The Russians attack at 3-2 (8-5) and can eliminate both German units with a DR < 6. If the Russian player rolls a 6, the German player must make a Random Selection DR to determine which unit(s) suffers casualty Reduction.

EX: German 5-4-8 and 4-4-7 squads along with 9-2, 8-1, and 7-0 leaders are in the same Location as two Russian 6-2-8 squads. One, two, or three of the leaders could defend with either German squad, or all three could defend together without any MMC, or each separately, etc. Each leader will be stacked with the MMC it defends (and therefore attacks) with. The 9-2 and 7-0 leaders stack with the 5-4-8 (7 FP) while the 8-1 stacks with the 4-4-7 (5 FP). This prevents the two Russian squads from being able to muster 2:1 odds vs the 9-2 stack or 3:1 odds vs the 4-4-7. The 9-2 and 8-1 could each direct separate 1:1 and 1:2 attacks vs a different 6-2-8, but in the end the 9-2 directs one big 1:1 attack by all the Germans vs both Russian squads, which in turn combine to attack all the Germans at 1:1.



11.15 MELEE: If Infantry of both sides remain in the same Location after all initial CC attacks have been resolved at the end of a CCPh, they *[EXC: bicyclists, skiers]* are considered to be locked in Melee and may not leave that Location or attack except as part of CC.[15] Infantry are also held in Melee by enemy Cavalry, cyclists, and non-Abandoned, Stopped, "unbroken" (12.1) vehicles. Place a Melee counter above the stack of units so afflicted *[EXC: Any unit which retains its concealment (11.19) is not locked in Melee itself nor can it hold opposing units in Melee. It is free to fire in its next Fire Phase (into the Melee at TPBF; 7.212) or leave the Location in its next MPh/APh. Therefore, a concealed unit may wish to decline its CC attack opportunity in an effort to save its concealment. Upon losing its "?" such a unit in a Melee Location is immediately held in Melee]*. Units locked in Melee may not Interdict routing units nor conduct any activity other than CC or Withdrawal from Melee. New units may advance into a Melee Location but must engage in CC (though a concealed unit may elect not to attack in an attempt to retain its concealment). The Melee units may be attacked by non-Melee units during a fire phase (or even the ATTACKER's MPh in some cases) but all friendly and enemy units in the Location must be attacked *[EXC: a Sniper attacks a Melee Location without harming friendly units]*.

11.16 BROKEN UNITS: A broken unit in the same Location with an enemy unit may be attacked in CC and is subject to a -2 DRM to the CC DR. Broken units may never attack, but still defend with their full (unbroken side) FP. Broken Infantry in Melee may not rout during the RtPh, but must attempt to Withdraw from Melee (11.2) unless Disrupted or guarding prisoners. Any non-guard broken unit unable to withdraw from Melee is eliminated at the end of that CCPh for Failure to Rout. Broken units may withdraw into any Accessible Location unoccupied by enemy units, but once there normal rout rules apply in any subsequent RtPh.

© 2000 Multi-Man Publishing, LLC

11.17 STEALTH: A SSR may bestow special powers of Stealth on Good Order troops to reflect their ferocious nature in CC or adeptness at night fighting or ambush. ANZAC, Gurkhas, Finns, Heroes, Commandos, and Partisans are always considered Stealthy unless Lax. See G1.6 for Japanese. Such Good Order troops receive a -1 drm to their Ambush status dr (11.4), Concealment Growth dr (12.122), Searching dr (12.152), and Search Casualties dr (12.154).

11.18 LAX: A SSR may penalize certain units as Lax to reflect their generally unprepared status. All Inexperienced Personnel are considered Lax. A Lax unit must add +1 to its Ambush status dr (11.4), Concealment Growth dr (12.122), Searching dr (12.152), and Search Casualties dr (12.154).

? 7 morale

11.19 CONCEALMENT: The FP of an attacking unit is always halved when attacking a concealed Unit in CC. For that reason, it is rarely wise to attack both concealed and unconcealed units in the same CC attack. Even though concealed, a unit in CC must reveal its Strength Factor prior to both sides' declaration of CC attacks in that Location. Dummy units are automatically removed prior to attack designation in CC because they cannot reveal a Strength Factor. A hidden unit must be placed on board beneath a "?" counter at the start of any CCPh in which it is in the same Location as an enemy unit. A unit loses its concealment in the CCPh only if it makes/directs a CC attack *[EXC: a successful Ambush; 11.4]* or suffers Casualty Reduction.

11.2 WITHDRAWAL FROM MELEE: Any Infantry unit engaged in Melee which is not currently pinned may attempt to Withdraw from Melee *[EXC: berserk/Disrupted units may never Withdraw from CC/Melee]* by announcing its intention to do so (ATTACKER first) at the start of the CCPh prior to both sides' declaration of CC attacks in that Location. Withdrawing units may not make CC attacks and are subject to a -2 DRM to all CC attacks made against them during that CCPh *[EXC: Infiltration (11.22) and Ambush Withdrawal (11.41)]*. The Withdrawal DRM is further modified by adding a +1 DRM for every friendly unit in the Melee which is not attempting to withdraw. If the withdrawing unit is a SMC, it may be attacked in CC as a separate target with a defense strength of one unless it is withdrawing with a MMC, in which case it defends in combination with that unit. Units may attack both withdrawing and standing units in the same CC attack, but the Withdrawal DRM (and standing Unit modifications to it) affect only the withdrawing unit. Any withdrawing unit which is not eliminated/reduced/captured in the CCPh successfully withdraws, and if previously concealed retains that "?" provided it withdraws into a non-Open Ground Location (12.14).

11.21 WITHDRAWAL MECHANICS: Any unit withdrawing during the CCPh may carry only ≤ its IPC and must enter an adjacent Location which is Accessible to that Unit under normal APh conditions (even if it requires placement of a CX counter; 4.72). The Location withdrawn to cannot be currently occupied by a Known enemy unit. If a unit withdraws into a concealed enemy's (not Dummy) Location it is eliminated automatically but an enemy unit(s) in that Location (determined by Random Selection) must forfeit its concealment.

11.22 INFILTRATION: The simultaneous nature of CC is momentarily suspended following an Original CC DR of 2/12. Provided it has not already been eliminated/captured/pinned, any Infantry/Cavalry unit which rolls an Original 2 CC DR may withdraw from CC/Melee immediately thereafter in the same CCPh without being attacked, even if it did not eliminate the defenders (see also Field Promotions; 18.12). Any Infantry/Cavalry unit(s) attacked by an Original 12 CC DR may likewise withdraw from CC immediately thereafter, assuming it has not been eliminated by that 12 CC DR. If the option to withdraw is taken, it must be done immediately; the unit cannot wait to make its own attack (if it has not yet done so) or see the outcome of other attacks before leaving. See also Ambush Withdrawal (11.41).

11.3 SEQUENTIAL CC: There are three other instances in which CC is not considered simultaneous; rather it is sequential, in that attacks are resolved in a specific order and any unit which is eliminated before it attacks forfeits its attack opportunity. Sequential attacks need not be predesignated (i.e., the player may observe the results of each attack before declaring the next one), but any Withdrawal from Melee attempt (11.2) must still be announced before any CC in that Location is resolved and may not be canceled.

11.31 vs VEHICLE: All CC attacks taking place in a Location containing a vehicle (even if abandoned) must be declared sequentially (even if the vehicle neither attacks or is attacked). The non-vehicular player attacks first, but he may make only one attack at that time. If the only involved vehicle is abandoned, the player who last possessed that vehicle is considered the vehicular player. Thereafter, each side alternates taking its CC attacks one at a time until all units in that Location have attacked, been eliminated, or passed. If opposing vehicles are in the same Location, the ATTACKER makes the first attack, and attack opportunities then alternate between the players for the rest of the CC in that Location during that CCPh.

11.32 AMBUSH: Whenever one side ambushes another, the ambushing side resolves all of its CC attacks in that Location first, until a Melee develops in the next Player Turn.

11.33 PRISONERS: Prisoners attempting to eliminate their captor may resolve all of their CC attacks first (20.55).

11.34 Should more than one sequential combat criterion occur in the same CC, the highest numbered rule takes precedence.

EX: Should an Ambush occur in a CC Location containing a vehicle, the ambushing side gets to resolve *all* of its CC attacks in that Location first during that CCPh. In any subsequent CCPh, the players would alternate sequential attacks.

11.4 AMBUSH: Whenever Infantry *advance* into CC (unless reinforcing a Melee) in a woods/building Location or with/against a concealed unit(s) an Ambush can conceivably occur. Whenever a hidden unit is placed onboard as per 11.19, an Ambush can occur. Prior to declaring CC attacks, each player makes one dr. If either player rolls at least three < the other, he has succeeded in ambushing his opponent. The side which has Ambush status in a CC is entitled to a -1 DRM to its CC attacks and a +1 DRM to CC attacks against it until that CC becomes a Melee in the next Player Turn. The side with an Ambush advantage may also maintain any concealment it has in CC until it attacks without eliminating/capturing its target. The side being ambushed loses all concealment it may have had. The Ambush Status dr is subject to the following drm even if only a portion of a player's CC force is qualified to use it.

drm	CAUSE
+2	Cavalry, Vehicle, or in Pillbox
+2	Above Bank counter
+1	Above Panji counter
+1	BU or Stunned AFV (each)
+1	CX, Lax, broken, pinned, or berserk (each)
+1	ATTACKER in Jungle, Kunai, Bamboo
-1	Stealthy
-2	Concealed
+x	Leadership modifier of best unpinned Good Order leader unless alone (10.7) or if any of the force is berserk

EX: A concealed Partisan squad with a CX 8-0 leader advances into an enemy-occupied Location. The total Ambush Status drm for the Partisan player is -2 (-3 for the concealed and stealthy squad plus +1 for the CX leader).

11.41 AMBUSH WITHDRAWAL: Any Infantry (unless pinned/berserk/Disrupted) that is part of a force which has qualified for Ambush has the option to decline CC altogether, prior to CC resolution, by immediate withdrawal into an Accessible Location or may withdraw from CC automatically after resolving all CC attacks by and against it, but only before Melee occurs.

EX: A German 6-5-8 squad *advances* into a Location containing a concealed Russian 4-4-7 squad. The 4-4-7 does not lose concealment yet (12.14). Both players make a dr in order to establish if an Ambush has occurred. As neither side is CX, Lax, or Stealthy, the Russian player has a -2 drm (Concealed) while the German

© 2000 Multi-Man Publishing, LLC



player has no drm. The German player makes an Ambush dr of 3; if the Russian player makes an original Ambush dr of ≤ 2, he Ambushes the German (11.4). The Russian player makes an Original dr of 3, however, and no Ambush occurs. The Russian player must now decide (even though the German is the ATTACKER; 11.12) if his concealed 4-4-7 squad is going to attack in CC. If the Russian decides to attack, the 4-4-7 immediately loses its concealment (12.14), allowing the German 6-5-8 to attack at 3-2 odds. If the Russian decides not to attack, the German's attack would be 3-4 (11.19). 3-4 rounds *down* to the nearest odds ratio (11.11) which is 1-2. If the German CC DR is a 2 or 3, the concealed Russian squad is eliminated; if the DR is a 4, the 4-4-7 loses its concealment and becomes a HS (11.11; 12.14). Any other DR has no effect on the concealed 4-4-7; i.e., it does not lose its concealment, is not locked in Melee (11.15), and is free to leave the hex during its next MPh/APh. If it were to use Assault Movement or advance into an ADJACENT non-Open Ground Location, it would even be able to retain its concealment.

11.5 CC vs A VEHICLE: Infantry/Cavalry (only) may attack a vehicle in the CCPh but they do not use the Odds Ratios or the Kill Numbers printed on the CCT as they do when attacking Personnel. Instead, the Basic Kill Number of any vehicle in CC is the *Close Combat Value (CCV)* of the Personnel attacking it. The CCV of a squad is 5, a Crew is 4, a HS is 3, and a SMC is 2. The CCV is modified by +1 for an Assault Engineer, -1 for an Inexperienced unit, and +1 for a SMC combining with the main attacking unit in the same attack. A CCV subject to any form of halving FP penalty (such as being pinned) is reduced by one for each such penalty. If the CC DR is < the CCV of the attacker, the vehicle is eliminated (and turned into a burning wreck if the CC DR is ≤ *half* of the CCV). If the CC DR equals the CCV of the attacker the vehicle is immobilized instead. No more than two units may combine into a single CC attack vs a vehicle and one of the units in any combined attack must be a SMC who modifies the CCV of the other unit by +1. A single CC attack cannot affect both a vehicle and Personnel (except for the PRC of a vehicle, which are eliminated if the vehicle is destroyed). However, with multiple attackers in the same Location, one attack can be made vs Personnel (11.611) and subsequent attacks vs a vehicle, perhaps with a better chance of success due to the elimination of Personnel in the earlier attack.

11.501 UNLIKELY KILL: An Original 2 CC DR always results in a chance of success for the attacker even if a CC DRM or a small CCV otherwise makes success impossible. Whenever the attacker makes an Original 2 DR, he may roll a third die. If the subsequent dr is a 1, the vehicle is a burning wreck; if a 2 it is eliminated; if a 3 it is immobilized; otherwise there is no effect. However, regardless of the subsequent dr, if the Original 2 DR would have resulted in elimination or Immobilization that result still occurs, unless canceled by an elimination or burning result from the subsequent dr.

11.51 CC DRM: CC attacks vs unarmored vehicles are eligible for a -3 DRM. A CC attack vs any vehicle without inherent manned functioning (e.g., Shock, stun, most BU AAMG) MG armament (including turreted MA ≤ 15mm) is eligible for a -1 DRM. There is a +1 DRM to the CC DR for every unbroken/unpinned, armed enemy HS/crew Personnel counter (+2 for each such squad) in the CC Location (and not in the act of Withdrawal) at the time of each attack unless they are BU in a half-track. There is a +2 DRM for CC vs a Motion/non-stopped vehicle. An Ambush DRM (11.4/11.8) or Hero DRM (15.24) can also apply to CC vs a vehicle. A leadership DRM applies to CC vs a vehicle only when that leader is combining with another unit in that attack. See also 11.61.

11.52 CAPTURE OF VEHICLE IN CC: Infantry may not attempt to capture a manned AFV or a Motion/non-stopped vehicle (or its PRC), but may attempt to capture or eliminate an Abandoned AFV as per 21.2. An unarmed, stopped/non-Motion vehicle without Personnel Escort is captured instantly in any CCPh in which it is alone with opposing Infantry. If an unarmored stationary vehicle has Passengers and the attacker wishes to capture (rather than eliminate) the vehicle, he must first attack and eliminate/capture all enemy Personnel in the Location, but must *capture* any Passengers. If all the Passengers are captured, so is the vehicle. The attacker must engage these Passengers in normal Infantry vs Infantry CC, but is eligible for both a -2 DRM for his attacks vs these Passengers and a +2 DRM in defending against attacks from those Passengers. This -2 DRM is combined with the +1 DRM for attempting to capture these Passengers in CC.

Close Combat comprehensive Example (Please see Illustration on page A33).

EX: GERMAN CCPh. All Advances (shown by yellow arrows) have been completed. The German 9-2 and 4-6-7 at ground level in hex F3 Advance onto the Wire in F4 to Streetfight (11.8) the T-34. The 4-6-7 has passed a PAATC with an Original 8 which was modified by the 9-2, but the leader did not have to take one and waited to see the outcome of the squad's PAATC before advancing. The leader and squad could attack separately but elect to defend and attack together, allowing the leader to direct the attack. Because a vehicle is involved, CC is sequential with the German attacking first. Either the 9-2 or the 4-6-7 (but not both) may make an ATMM Check dr, but the leader would have a +2 drm. The squad opts to attempt the ATMM Check and obtains one with an Original 3 dr. The German CCV is 6 (5 for the squad plus 1 for the leader) with a total DRM of -5 (-1 Street Fighting Ambush, -3 ATMM, -2 Leadership Modifier, +1 Wire). The Original CC DR of 9 is modified to a Final DR of 4. Since this is less than the CCV, the T-34 is eliminated and flipped to its wreck side (Crew Survival NA). The German 9-2 and 4-6-7 must stay in F4 due to the Wire; otherwise, they could have chosen to return to F3 because they were Street Fighting.

Because the 4-6-7 in G2 Advances into CC in a building Location in G3, Ambush can occur. The Ambush Status drm of the Russian is +1 (Lax, due to being Inexperienced) while the German drm is zero. No Ambush occurs when the Russian dr is a 3 and the German dr is a 2. The German declares a Capture attempt vs the 4-2-6 at 1:1 odds with a -1 DRM (Capture vs Inexperienced) while the 4-2-6 attacks the 4-6-7 back at 1:1 with zero DRM. The German Original CC DR of 6 results in Casualty Reduction, i.e., the Capture of one HS. The Russian original CC DR of 9 has no effect. The 4-2-6 is replaced by a 2-2-6 and a HS Prisoner possessed by the German. Taking advantage of the squad's status as a Guard, the German Deploys into two HS, one of which possesses the Prisoner HS. The survivors are now held in Melee. If the Russian Original CC DR had been 4, the 4-2-6 would have eliminated the 4-6-7 and thus would not have been Captured. If the 4-6-7 had been Casualty Reduced, the remaining 2-4-7 HS would still Capture a HS Prisoner.

Because at least one of the units in CC is concealed when the 2-4-7 Advances into G5 from G6, Ambush can occur. Both sides must now reveal their strength factors. (If one had been a dummy stack, it would be removed now.) Both the 2-4-7 and the 4-4-7 receive a -2 Ambush drm for being concealed, and the 2-4-7 Ambushes the 4-4-7 (which loses concealment) when their respective drs are 2 and 5 (since 0 is at least 3 less than 3), making CC sequential, and allowing the 2-4-7 to Withdraw, either *before* CC or *after* CC and before Melee. The 2-4-7 could choose to attack the 4-4-7 at 1:2 odds with a -1 DRM for Ambush. The 2-4-7 could keep its concealment if it eliminates the 4-4-7, and then could elect to Withdraw or not. The 2-4-7 would lose its concealment if it did not eliminate the 4-4-7 which would then attack back at 2:1 odds with +1 DRM for Ambush. If the 2-4-7 survives, it could then Withdraw. Not willing to risk CC, the 2-4-7 elects to use its Ambush advantage to Withdraw to G4 before CC. Unfortunately for the 2-4-7, there is a HIP Russian AT Gun and crew in G4 (outlined in white). The Gun and crew are placed on board unconcealed (11.21) and the 2-4-7 is eliminated.

In hex H3, the German PzV and the Russian 6-2-8 and 4-4-7 have already engaged in CC this Player Turn when the PzV entered the Location during its MPh and the Infantry used CC Reaction Fire (D7.21). Since the units are not in Melee yet, Ambush can occur when the German 5-4-8 and Hero Advance into CC in this woods hex. There is no drm to the Russian Ambush Status dr, while the German Ambush dr receives +2 drm (+2 vehicle, +1 BU, -1 Stealthy [Hero]), but no Ambush occurs when the Original dr for each side is 3. The Hero must announce if defending alone before any attacks are designated, but defends (and attacks) with the 5-4-8. Despite going first in sequential CC due to being the non-vehicular side, the Russian need not attack the vehicle and so the 6-2-8 attacks the German Infantry at 1:1 odds with zero DRM, but has no effect with an Original CC DR of 8. Subsequent attack opportunities alternate between sides and the German 5-4-8 and Hero attack back at 1:1 odds with -1 DRM (Heroic). The Original CC DR is 2, resulting in Infiltration and Field Promotion (18.12), as well as eliminating the 6-2-8. The German dr on the Leader Creation table is an Original 4 with a -2 drm (-1 German, -1 ML 8) resulting in a Final dr of 2, creating an 8-0 leader. Adding the leader to the attack does not change the result, and the German Infantry Withdraws to H2. Even if CC had not been sequential, the attacking German Infantry would have made its CC attack first and the Russian 4-4-7 would still have been unable to attack the German Infantry before it withdrew. The 4-4-7 now turns its attack against the PzV with a CCV of 5. Since the AFV is in Bypass and no Ambush occurred, the 4-4-7 receives the -1 Street Fighting Ambush DRM and Immobilizes the PzV with an Original CC DR of 6. No Immobilization TC is required. The PzV then attacks with its sN Close Defense Weapon System (11.622). Its Original IFT DR of 7 is ≤ its Usage #, so it attacks *all* unarmored units with 16 FP (no TEM or DRM ever apply) resulting in a 2MC vs the 4-4-7. If the 6-2-8 had survived or the German Infantry not Withdrawn, they would be attacked also. The 4-4-7 passes the 2MC, and the PzV attacks again with its 5 FP

© 2000 Multi-Man Publishing, LLC

CMG vs the 4-4-7's CCV of 5 at 1:1 odds with +1 DRM (+1 Street Fighting Ambush). If the 4-4-7 had failed its 2 MC, the -2 DRM for broken would also apply to the CMG attack, for total DRM of -1. If the 4-4-7 had rolled an Original MC DR of 2 on its 2MC, Heat of Battle would apply. The Original CC DR of 12 results in the CMG Malfunctioning and Infiltration, allowing the 4-4-7 to Withdraw to H4. If the 4-4-7 stayed in the Location with the Immobile PzV instead of withdrawing, the squad would be locked in Melee; but the vehicle would not be held in Melee despite being Immobile, although it still could not shoot outside the Location it shares with the 4-4-7.



Being Fanatic, the 5-4-8 in J4 is exempt from PAATC when it Advances into I5 and attacks the T34/85 in sequential CC using Street Fighting. The German makes an ATMM check and rolls an Original 6, pinning the 5-4-8 and reducing its CCV to 4. DRM are -2 (-1 Street Fighting Ambush, -1 CE). The German then rolls an Original CC DR of 12 resulting in Casualty Reduction from Crew Small Arms (11.621). The T34/85 attacks with its CMG vs the CCV of the surviving, pinned 2-3-8 HS at 2:1 odds (4 FP:2 CCV [3 CCV -1 pinned]) with +1 DRM for Street Fighting Ambush. The Original CC DR of 9 has no effect. Since the 2-3-8 is pinned, it cannot return to its building Location and is locked in Melee with the vehicle.

Hex K4 has been in Melee for two Player Turns. The German 4-6-7 attacks the Russian 4-4-7 at 1:1 odds with zero DRM while the 8-1 declares it will attempt to Withdraw from Melee with the 4-6-7 covering. (If this were the first round of CC rather than Melee, the leader could not attempt to Withdraw.) The two Russian squads attack both German units at 3:2; zero DRM apply vs the 4-6-7 and -1 DRM apply to the leader (-2 Withdrawing, +1 covering unit). Since the leader is Withdrawing it cannot defend with the 4-6-7 so the Russian could have attacked them separately, 1:1 vs the squad and 4:1 vs the leader with the same DRM as the combined 3:2 attack. The German rolls an Original 12 CC DR resulting in no effect other than Infiltration for the Russian, who can now choose to Withdraw either or both squads *before* making an attack. (If the Russian had rolled to cause Infiltration, the Russian squads could Withdraw *after* making their attack.) The Russian Withdraws the 4-4-7 to K5 and attacks both German units with the 5-2-7 at 1:1 odds with the same DRM as before. The original CC DR of 6 results in Casualty Reduction for the leader. The Wound Severity dr of 5 eliminates the leader but no LLMC is required. The 4-6-7 and 5-2-7 remain in Melee.

Because the 4-4-7 in L5 passed a PAATC when the PzIVH entered its Location in the MPh, the squad retained its "?" when it opted not to make a CC Reaction Fire attack. The 4-4-7 now attacks the PzIVH first in sequential CC with a CCV of 5 with zero DRM. Street Fighting Ambush is NA since the 4-4-7 did not advance out of a building to attack the AFV. The Original CC DR of 7 has no effect. The AFV then attacks the squad at 1:1 odds (5 FP CMG vs 5 CCV) with zero DRM, but has no effect with an Original CC DR of 7. A Melee counter is placed in L5, although a vehicle cannot be held in Melee. If in the PzIV's next MPh it expends a Start MP, the 4-4-7 will no longer be held in Melee and could conduct a CC Reaction Fire (but not a Non-CC Reaction Fire) attack, with a +2 DRM for the AFV being Non-Stopped. The 4-4-7 which Withdrew from K4 to K5 could also attack the PzIVH on its Start MP using Street Fighting CC Reaction Fire (D7.211) with DRM of +1 (-1 Street Fighting Ambush, +2 Non-Stopped). Because the 4-4-7 in L5 was concealed at the start of CCPh, it could opt to not attack in CC, retaining its "?". The AFV's CC attack would be halved to 1:2 ($2^1/_2$ FP:5 CCV). If this attack has no effect, the 4-4-7 would continue to retain its "?" and not be held in Melee.

The broken 2-2-7 in J2 routed there from I3. Since the 3-3-8 is not Known, the 2-2-7 could have continued routing to K2 but would have been eliminated when it tried to enter the 3-3-8's Location. Because the 3-3-8 is not Known, the 2-2-7 can end its RtPh ADJACENT without being eliminated. When the 3-3-8 Advances into CC in the J2 building Location, Ambush can occur (even if the 3-3-8 were not concealed).

The Russian Ambush Status drm is +1 (Broken) while the German drm is -2 (concealed). The Russian is Ambushed when both roll an Original 5 Ambush dr. Even if there had been no Ambush, the broken 2-2-7 could not attack the 3-3-8, which attacks the 2-2-7 at 3:2 odds with -3 DRM (-1 Ambush, -2 broken), but rolls an Original CC DR of 11 for no effect. Because the 3-3-8 did not eliminate the its target, it loses concealment but can still Withdraw due to the ambush. If it does not Withdraw, it will be in Melee with the broken 2-2-7, which would then be relieved of the obligation to rout in the next RtPh, being required instead to Withdraw from Melee in the next CCPh while facing CC DRM of -4 (-2 broken, -2 Withdrawing).

11.6 CC vs AN AFV: In order for a MMC to *advance* into a Location containing a manned unconcealed enemy AFV, it must first pass a PAATC (failure of which causes the unit to become pinned). SMC, Fanatic, and Berserk units are exempt from PAATC. A leader may use his leadership modifier to aid any units in the same Location with their respective PAATC even if he does not advance into the Location himself. All Inexperienced Infantry must take a 1TC rather than a NTC in order to advance into a manned enemy AFV's Location. Once in the same Location with an enemy AFV during the CCPh, no further PAATC is necessary in order to attack it during CC. A unit which passes a PAATC must immediately advance into the AFV Location; it may not await the outcome of another unit's PAATC before deciding whether or not it wishes to advance. PAATC attempts need not be predesignated.

11.61 CC ATTACK DRM vs AFV: A CC attack vs an OT or partially armored AFV (whether CE or not) is eligible for a -2 DRM. A CC attack vs a CE CT AFV is eligible for a -1 DRM. An AFV BMG may not be used in CC even if listed as MA, but does serve to void the DRM for a vehicle defending without a MG (11.51). Any Immobile AFV is subject to a -1 CC DRM. The Immobile DRM remains -1 even if the AFV suffers from more than one immobilizing condition. See also 11.51.

11.611 PRC: The PRC of a vehicle destroyed in CC are eliminated with no chance of survival. However, Riders can be attacked separately as an Infantry-vs-Infantry CC attack. Riders are susceptible to a +1 CC DRM when attacking and a -1 CC DRM when defending. All other PRC cannot be attacked separately in CC *[EXC: capturing Passengers; 11.52]* and must share the fate of their vehicle.

11.612 AF: An AFV's AF is not considered in CC.

© 2000 Multi-Man Publishing, LLC



11.62 AFV CC ATTACKS vs INFANTRY: An AFV usually attacks Infantry/Cavalry on the CCT only with its AAMG FP (which usually is usable only if the AFV is CE, or is fired by a Heroic Rider; 15.23) and/or its CMG factor (unless that CMG can fire only through the VCA as signified on the counter by "CMG: VCA only"; D1.82) and/or the IFE FP of turreted MA ≤ 15mm. The only other ways an AFV may attack in CC are with a RMG factor, Riders, CE Passengers in a halftrack, or a Close Defense Weapon system. An AFV may combine any CMG (+1 DRM on a Narrow Street; B31.132), RMG, halftrack Passenger's FP, and AAMG FP into one or more combined CC attacks or use them separately in different CC attacks. All such FP is used to form Odds ratios vs the defender's CCV and uses the CCT black Kill Numbers, and is never increased due to any condition—although it can be halved due to Motion/or vs concealed units/by Pinned units (cumulatively), or negated (see Shock; C7.42 and Stun; D5.34). A defender's CCV cannot be reduced below 1; treat any condition that would do so as a CC DRM instead. Multiple ROF never applies in CC, nor do Intensive Fire penalties/restrictions. Unarmored vehicles attack Infantry/Cavalry the same way as AFV do *[EXC: CE NA]*.

11.621 CREW SMALL ARMS: Anytime a unit attacks a non-Abandoned crewed vehicle in CC which is neither Shocked nor Stunned and rolls an Original 12, the attacking unit(s) suffers Casualty Reduction.

11.622 CLOSE DEFENSE WEAPON SYSTEM: Beginning in July 1944, certain German AFV are equipped with a close defense anti-personnel projector (Nahverteidigungswaffe) in their turret roof. It can be used to make a HE attack on the IFT if the AFV is BU, but only during the CCPh after the AFV or its Personnel Escort has been attacked in that CCPh (11.31) *[EXC: an AFV may fire a Nahverteidigungswaffe before being attacked if it qualifies as the Ambusher; 11.4]*.[16] An AFV with this capability is identified by the symbol "sN" on the back of its counter. If fired (see D13.3), it must attack all unarmored units in its Location (including friendly Personnel/Vulnerable PRC/unarmored vehicle) with 16 factors on the IFT. A Close Defense Weapon System attack cannot be combined with any other form of FP. No To Hit DR is necessary, but if the Original IFT DR is > its Usage Number there is no effect (see D13.34). Despite the use of the IFT, TEM/SMOKE/other LOS Hindrances never apply to the resolution of a CC attack.

EX: Three Russian 4-4-7 squads and an 8-1 leader wish to advance into an Open Ground hex containing a BU, Mobile, stationary German PzIVJ tank. Each squad (aided by the leader) makes a DR ≤ 8 for their PAATC (11.6) enabling all four units to advance into the German AFV's hex during that APh. In the ensuing CCPh, the Russian will get to attack first because CC vs a vehicle is sequential (11.31). His first attack is with squad A and the leader for a CCV of 6. The only applicable DRM is the leadership modifier of the 8-1 leader so the tank will be immobilized on an Original DR of 7, eliminated on an Original DR ≤ 6, and burns on an Original DR ≤ 3 (11.5). The Original DR is a 7 so the tank has been immobilized. It is now the tank's turn to attack and it does so with its Close Defense Weapon System by attacking on the IFT with 16 FP (11.622). The IFT DR is a 7 resulting in a 2MC vs all four Russian units. The Russian leader breaks as do squads A and C, but no LLTC is required (11.141). It is now the Russian's turn to attack again, but he has only one unbroken squad left with which to attack. That squad has a CCV of 5, but because the tank is now immobile the Russian qualifies for a -1 DRM. He can eliminate it with an Original DR ≤ 5. However, he rolls a 7 and it is again the German's turn to make a CC attack; this time with his 5 FP coaxial MG which is all he has left to attack with. Bow MG are not usable in CC and AAMG usually must be CE to be fired (11.62). Nevertheless, the tank now has a choice of making a 1-1 (5-5) vs squad B or C, 1-2 (5-10) vs squads B and C, or 1-2 (5-6) vs squad A and the leader, or 1-4 (5-16) vs all four units. He opts to attack all four units at 1-4, mainly because he gets a -2 DRM vs the three broken units (11.16). His Original DR is a 5 which causes Casualty Reduction among the three broken units; the unbroken squad B is not affected. A Random Selection (A.9) DR results in reducing squad A to a HS and wounding the leader due to a tie highest dr. At this point the CCPh ends since neither side has anything left to attack with which hasn't already been used in this phase. As the immobilized German AFV cannot move, it will hold all four Russian units in its hex in Melee until the next CCPh when new attacks and Withdrawal from Melee attempts may be made although the AFV may attack the Infantry during the PFPh.

11.7 VEHICLE WITHDRAWAL FROM CC: A vehicle is never held in Melee and, if Mobile, may move out of a CC Location normally in its MPh. An Immobile vehicle or a vehicle which opts to stay in a Location where it started its turn with Known armed enemy units may only fire at enemy units in that Location (7.212) and must use To Hit Case E for any ordnance attacks. Even though a vehicle cannot be held in Melee, a non-Abandoned, "unbroken" (12.1) vehicle holds all Known enemy Infantry occupying the same Location after a CCPh in Melee as long as it remains in the Location (unless in-Motion/Non-Stopped).

11.71 OTHER WITHDRAWAL FROM CC: Passengers/Riders of Immobile vehicles are held in Melee, but Cavalry, cyclists, skiers, and Passengers/Riders of Mobile vehicles who survive their initial round of CC are not required to remain in Melee. These units may dismount during their next MPh and remain in Melee without their prior handicap, as may Passengers/Riders of Immobile vehicles, or they may move out of the Melee Location in their mounted mode normally during their next MPh. Should they dismount, their form of conveyance remains with them and is subject to capture *[EXC: A Mobile vehicle can still move out of the Melee Location and a manned AFV is never subject to capture]*. Whenever any of the ATTACKER's units leave a Melee Location, he must declare whether any units will remain behind to preserve the Melee. Should no friendly units remain behind to keep the enemy in Melee, those enemy units are freed from Melee and may Defensive First Fire on the moving units.

11.8 STREET FIGHTING: Any vehicle in a road hex and ADJACENT to a building hex on both sides of that road is especially vulnerable to CC in that hex.[17] All Infantry advancing into that road Location from ground level of one or more of those adjacent building hexes qualify for a Street-fighting Ambush -1/+1 DRM in CC vs the vehicle (not cumulative with the normal -1/+1 CC DRM for Ambush) unless actual Ambush occurs even if the vehicle is accompanied by escorting Personnel. The unit(s) would be moved onto the vehicle(s) in the road hex to make their CC attack(s) and following any CC attack returned to the same Locations they came from with mines/FFE attacking normally when they return or at their option remain in the road Location. If broken or pinned or on top of Wire, they would not be returned to their building Location. Furthermore, any vehicle in such a road hex may be attacked with CC Reaction Fire (D7.21-.211) by Infantry on the ground level of those buildings as their Defensive First Fire attack. Reaction Fire is identical to Street Fighting CC procedures except that the vehicle may not attack back; i.e., it has no CC attack options during Reaction Fire (although Crew Small Arms still applies; 11.621). Any vehicle in stationary Bypass or using VBM is also subject to Street Fighting rules from any Infantry in the Bypassed obstacle of their hex. Normal PAATC requirements (11.6) apply in all cases.

12. CONCEALMENT



12.1 Concealment[18] refers to a condition in which units are not seen by other units in play even though the omniscient player can see the physical presence of counters in a hex. To simulate an opposing unit's inability to see these units, a concealment counter ("?") is placed above such units so as to hide their true nature and provide them with several pertinent advantages. No unit can be concealed more than once at any one time, although one or more Dummy counters (12.11) can be placed atop a unit(s). Generally speaking, "?" loss can occur due to an action performed while in the LOS of a *Good Order* enemy ground unit, whereas "?" *gain* can be denied while in the LOS of an *unbroken* enemy ground unit *(which includes Dummies)*. Note the distinction: *Good Order* for "?" *loss; unbroken (and Dummies)* for denial of "?" *gain*. A vehicle that has neither an inherent crew, nor Passenger(s), nor Rider(s), is considered "broken" for "?" gain/loss purposes (i.e., such a vehicle can neither force loss of "?" nor block placement of "?").

12.11 KNOWN/DUMMY ENEMY UNIT: A unit or stack of units beneath a "?" is not a Known enemy unit and cannot be inspected by the opposing player. If a hex contains both concealed and unconcealed units, the unconcealed units must be placed on top. If a scenario allocates a number of "?" available for setup at the start of the scenario, those "?" can be placed atop each other to act as Dummies—thus giving the mistaken impression of a stack of real counters beneath a "?" but a single such counter cannot be placed beneath unconcealed units. A stack of Dummies containing no real unit may be moved as if it contains a real unit (even to the extent of being able to move with leader/Double Time MF bonuses), but it is removed if it moves without Assault Movement

© 2000 Multi-Man Publishing, LLC

(or into Open Ground) in the LOS of a Good Order enemy as per 12.14. A $^{5}/_{8}$" Dummy stack can claim to be an Emplaced Gun (without Emplacement TEM) or a vehicle but, except for moving, is treated like a $^{1}/_{2}$-inch Dummy stack for concealment loss. Before announcing any mine attacks exposed by the movement of a stack topped by a "?", the DEFENDER may force the ATTACKER to momentarily reveal a non-Dummy unit in that stack to show that an actual force exists there. If he cannot, or if the stack is friendly to the DEFENDER, the Dummy stack is removed. Dummy stacks can be created only during initial setup and among OB-designated "?" reinforcements during their initial turn of entry. Multiple concealed units can combine into a concealed stack but must remove the top "?" counter from all but the original concealed (or Dummy) stack. A concealed stack under a single "?" can split into separate stacks; each new stack is topped with its own newly created "?". An unpossessed SW or other "non-unit" cannot gain/retain a "?".

12.12 PLACEMENT: The player setting up first in a scenario does so out of vision of his opponent, and after setting up his regular units may place only scenario OB-designated "?" at first—but only in *Terrain listed in red in the Terrain Chart/Desert Terrain Chart/PTO Terrain Chart*. After his opponent sets up in the same manner, each unconcealed unit (of both sides) which is either out of the LOS of all unbroken enemy ground units within 16 hexes of it, or at ≥ 17 hexes from all of them, may have a "?" not designated by the OB placed on it *[EXC: only one non-OB-designated "?" can be placed per stack of units and not on top of any previously placed "?"]*. Therefore, if one side begins with no forces on board, the other side will be able to place "?" on all of its non-Dummy units after placing those units (before the opponent may look at the board). Thereafter, a "?" may be placed on top of any non-concealed Good Order unit/stack before it enters the mapboard for the first time. During play (and in addition to all other restrictions; see 12.121) an Infantry unit can gain "?" only if it is *non-concealed* and in *Good Order*, and only *at the end of its own Player Turn*. A unit can never gain "?" while broken or berserk, because such a unit is not in Good Order.

12.121 CONCEALMENT LOSS/GAIN TABLE: The specific situations that allow "?" gain (or cause "?" loss) are given in the Concealment Table *[EXC: Night (E1.3)]*. To find if a particular non-concealed Good Order unit can gain "?" at the end of its Player Turn, determine that unit's category in the Table, whether or not it is in the LOS of an unbroken enemy ground unit (and, if it is in such LOS, the range from the *nearest* such enemy having a LOS), and whether or not it occupies Concealment Terrain. Cross-index these facts to find the appropriate triangle; the letters in this triangle represent the Cases that list the specific situations in which that unit can gain "?". Not all the situations listed will necessarily apply to that unit in its present circumstances but, if one or more does apply, that unit is eligible for a "?". The Concealment Table always takes precedence over the body of the rules (e.g., an uncommon cause of "?" loss might be mentioned in the Concealment Table even though it is omitted from the rules proper for the sake of brevity).

EX: At the end of its Player Turn a non-concealed Infantry squad is out of the LOS of all unbroken enemy ground units and is in woods. Checking the Concealment Table, the applicable Case is found to be J. Therefore, the squad can gain "?" if it is in Good Order. If an unbroken enemy ground unit (including a Dummy stack; see "Unit" in Index) within 16 hexes of the squad had a LOS to it, it could not become concealed (Case "[NA]").

12.122 CONCEALMENT dr: There are two instances when a dr must be made to determine if "?" can be gained. These are:

- An Infantry unit (not manning a Gun) that is *within* 16 hexes of an unbroken enemy ground unit, is *not* in Concealment Terrain, and is *out* of the LOS of *all* unbroken enemy ground units (see the applications of Case K in the Concealment Table);
- A unit that is *beyond* 16 hexes from all unbroken enemy ground units but in the LOS of *at least one* of them, and is *in* Concealment Terrain (see the application of Case I in the Concealment Table).

Such a unit can receive a "?" only by rolling ≤ 5 on a Concealment Final dr. All such units in a stack check for concealment individually using a separate dr for each unit. The Concealment dr is subject to the following cumulative drm:

+X	X is US# of unit or its possessed Gun/Horse
+Z	Z is Leadership of best leader in same Location unless alone (10.7)
+1	Lax
-Y	Y is TEM & Hindrance DRM of Location occupied (all hexside/Height Advantage TEM are NA)
-1	Stealthy
-2	Japanese (G1.63)

EX: At the end of their Player Turn, a Russian squad, HS, Hero, and 8-1 leader occupy an Open Ground Location out of the LOS of all unbroken German ground units but are still within 16 hexes of one. Case K of the Concealment Table thus applies. On an Original dr of 4 the squad fails to gain "?" (4 [dr] +3 [US#] -1 [Leadership] does not equal 5 or less). On an Original dr of 5 the HS fails to gain "?" (5 [dr] +2 [US#] -1 [Leadership] does not equal 5 or less), as would the leader (5 [dr] +1 [US#] does not equal 5 or less) since a leader can never modify his own DR. The Hero gains "?" automatically even on a dr of 6 (6 [dr] +1 [US#] -1 [Leadership] -1 [Stealthy] = 5 which is ≤ 5). If this same example were to occur in an Open Ground hex with a Dispersed Smoke counter, the highest Original dr gaining "?" in each case would be increased by two.

12.13 EFFECT: All fire and CC vs a concealed unit are halved as Area Fire *[EXC: Residual FP, OBA, ordnance, Sniper, and minefield attacks]*. Ordnance attacks apply the Case K To Hit DRM instead of halving the FP of any resulting hit. The effects of Area Fire for concealment are cumulative with other causes of Area Fire. If a target Location contains both concealed and unconcealed units, any attack capable of affecting both types must be resolved once for each type, using a different FP column (or To Hit Numbers for ordnance) but the same DR. See also 12.16 and 12.2; for the effects of concealment in CC see 11.19 and 11.4-.41.

EX: A concealed German 4-6-7 squad fires at a woods hex five hexes away containing a concealed 4-4-7 and an unconcealed 6-2-8; the 4-6-7's "?" is immediately lost (Case B of the Concealment Table). The German player rolls an Original 4 IFT DR which becomes a Final DR of 5 due to the TEM. The effect is a 1MC vs the 6-2-8 on the 4 FP column and a NMC vs the concealed 4-4-7 on the 2 FP column. Regardless of the outcome of the MC DR, the 4-4-7 loses its "?" (Case A of the Concealment Table). In the case of a hidden unit, the owner (or referee) must make these calculations mentally and reveal the unit if affected.

EX: A German 75mm Gun fires at a woods hex containing a concealed 4-4-7 and an unconcealed 6-2-8 at seven hex range. The Final To Hit Number for the unconcealed unit is a 6 (7 [Basic To Hit Number] -1 [woods TEM] = 6), and for the concealed unit is a 4 (same calculation -2 [concealed target] = 4). If the German player rolls a 5 on his Final To Hit DR, he hits the unconcealed 6-2-8 and resolves that hit with a DR on the 12 column of the IFT; the concealed unit is not hit and does not undergo attack on the IFT. Had it been hit, it would have undergone an attack on the 12 column of the IFT, losing its "?" if the attack causes a "PTC" or better result.

12.14 REMOVAL: The specific situations that cause loss of "?" are listed in the Concealment Table, and are determined using the principles given in 12.121; note however that any LOS necessary to cause "?" loss must be from a *Good Order* (not just *unbroken*) enemy ground unit. When a unit loses concealment (see 12.31 for HIP loss) its "?" is removed immediately. When a concealed unit breaks or becomes Wounded/Reduced it loses its "?", regardless of the range to any enemy units in its LOS, or even if out of the LOS of all enemy units. A Dummy stack out of the LOS of all enemy ground units uses a Morale Level of 7 when attacked, or when taking a PAATC (12.41), or a Bombardment MC (C1.82). Any K/KIA result eliminates the stack. Otherwise, the owner declares how many DRs (at least one) he will make; any failed MC or Pin result eliminates the entire stack. Whenever any of the following happens to a concealed unit while in the LOS of a Good Order enemy ground unit *(regardless of range)*, it loses its "?":

- becomes berserk/overstacked,
- is attacked resulting in at least a PTC (or its corresponding DR vs a vehicle; see 12.2) on the IFT *[EXC: A-P Mine attacks; B28.411]*,
- is attacked by a Sniper (dr 1 or 2; 14.3).

A concealed unit's "?" is also lost immediately if it does any of the following *in LOS* of a Good Order enemy ground unit within 16 hexes (such potential LOS checks are free and require no attack or penalty for a blocked LOS):

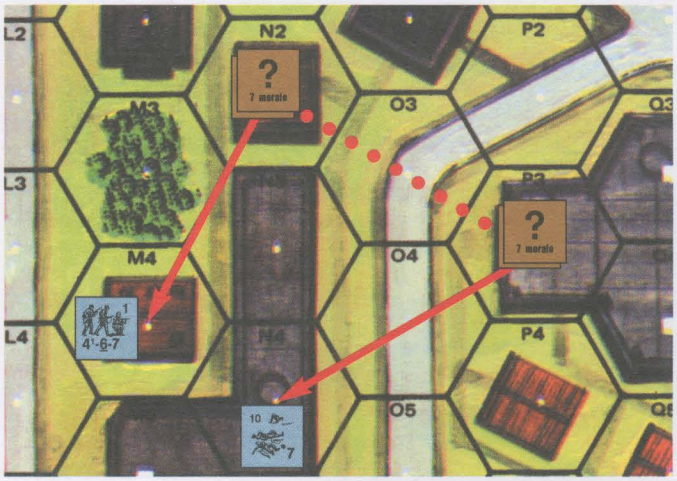
© 2000 Multi-Man Publishing, LLC

- uses Non-Assault Movement *[EXC: behind bocage (B9.55) or between connected trenches (B27.54)]*,
- moves/advances/withdraws into an Open Ground hex (as defined in 10.531),
- directs fire or fires or is designated as an Opportunity Firer in a fire phase,
- attacks in CC *[EXC: an Ambush attack which eliminates/captures the defending unit(s); 11.4]*,
- an enemy Infantry/Cavalry unit attempts to enter its Location (see 12.15) during the MPh/RtPh.

This list is not all-encompassing; see the Concealment Table for other causes and conditions of "?" loss.

A concealed Infantry unit may otherwise retain its concealment during Assault Movement or an advance even if it enters a non-Open Ground hex ADJACENT to a Good Order enemy, or even if it advances into CC (or an enemy unit advances into its Location). The owning player can voluntarily remove any concealment at any time during his or his opponent's Player Turn *[EXC: between when a Sniper target hex Random Location DR (14.2) is made and the Sniper counter is relocated]*. If the only Good Order enemy ground unit in LOS is itself concealed when a concealed friendly unit makes a concealment-loss action (other than breaking or being Reduced/Wounded), that enemy unit must completely forfeit its "?" momentarily (to prove that it is not a Dummy) if it opts to force the friendly unit to lose his; the viewing unit's momentary forfeiture of concealment is instantly regained. The presence of a LOS Hindrance or beneficial defensive DRM (such as TEM and CA change DRM) along the LOS to a concealed unit does not prevent loss of its concealment. Loss of concealment by one unit does not necessarily cause loss of concealment to other units in the same Location.

EX: A concealed German 4-6-7, while at 12 hexes from (and in the LOS of) a Good Order Russian 4-4-7, uses Non-Assault Movement into a graveyard hex that contains a truck with a HS Passenger. The 4-6-7 loses its "?" (Case A of the Concealment Table), while the truck and its Passenger could not have even been concealed (Case H). A Russian HMG with leader direction later Final Fires at the graveyard hex at a range of 18 hexes; this attack has $1\frac{1}{2}$ FP vs the Infantry 4-6-7 (6 [MG FP] × $\frac{1}{2}$ [Long Range] × $\frac{1}{2}$ [treated as Concealed target (Mandatory Fire Direction; 9.4)] = $1\frac{1}{2}$), and vs the truck and HS Passenger it has 3 FP (since the concealment penalty of Mandatory Fire Direction only applies vs Infantry). If the 4-4-7 were not in Good Order (or were not present at all), the 4-6-7 would not lose its "?" when it moved (since the nearest Good Order enemy with a LOS to it would now be the Russians manning the HMG 18 hexes away, thus making Case E of the Concealment Table applicable for determining "?"-loss instead of Case A), while the truck and HS Passenger would still be unconcealed (Case H would still apply at ≥ 17 hexes)—so the MG's attack would still affect those units with $1\frac{1}{2}$ FP and 3 FP respectively.



EX: Russian concealed squads are in 1N2 and P3. The Russian squad in N2 (even though presently in LOS of the German squad in M4) may move into O3 and P3 without losing its concealment because the hexes in which it expends those MF are not in LOS of a Good Order enemy ground unit within 16 hexes. If the building in N2 was instead a foxhole or pillbox containing the Russian squad, it would lose its "?" due to expending MF in Open Ground in N2 in LOS of a Good Order enemy ground unit, even if it uses Assault Movement to enter O3 (4.61); Case B of the Concealment Table. The Russian concealed squad in P3 can fire at the broken German squad in N4 without losing its "?" (except momentarily for verification) because there are no Good Order enemy ground units in LOS within 16 hexes. The concealed squad in N2 would have lost its concealment had it fired on the German in M4 (Case B)—even if that fire had broken or eliminated the German squad—because the German was in Good Order at the instant of attack. However, it may regain a "?" at the end of its Player Turn if it is in Good Order and there is no unbroken enemy ground unit in LOS and within 16 hexes (Case J).

12.141 ACTIONS: Any other activity which a concealed unit engages in *[EXC: operation of radio/field phone; taking a PAATC or Set DC NTC; dropping/attempted repair of a SW/Gun; Spotting; and application of a leadership modifier to another concealed unit's PAATC (EXC: 12.41)]* causes loss of concealment if that unit is currently in the LOS and within 16 hexes of a Good Order enemy ground unit. LLTC/LLMC, attempts to entrench, set a Fire, Deploy, Recombine, make a Sniper Check or PF/MOL/ATMM check, rally a broken unit, engage in Clearance attempts, change CA, apply a leadership modifier to anything other than a PAATC, or place SMOKE grenades are examples of actions that cause loss of concealment. A Snap Shot attack opportunity is not sufficient to cause the moving unit to lose its concealment unless the attack generates a "PTC" or better result.

12.15 DETECTION: Concealment can also be lost due to attempted enemy *movement* (not advance) into a concealed unit's Location. Whenever a non-berserk enemy infantry/non-charging Cavalry unit attempts to move into a Location containing a concealed unit during the MPh *[EXC: Bypass (12.151); Human Wave (25.23)]*, the DEFENDER must *immediately* reveal at least one concealed unit in that Location and thereby force the moving unit back (even from a Wire Location) to the last Location occupied before entering his Location *[EXC: units allowed to enter an enemy Location during the MPh; 4.14]* where it will end its MPh (unless it goes Berserk first) and is subject to possible Defensive First Fire attack (or, in the case of a routing unit, eliminated or captured for Failure to Rout; 10.533). If the ATTACKER is concealed, the DEFENDER can (before he reveals any unit) force him to momentarily reveal a non-Dummy unit in that stack; if the ATTACKER cannot, his Dummy stack is removed. The MF expended in attempting to move into the concealed unit's Location are still used, but are considered expended in the Location it is returned to; such re-entry causes any already-existing Residual FP in the returned-to Location to attack the returning unit—even if it had already attacked that unit in that phase. Similarly, a Unit forced back into a FFE or minefield Location is subject to FFE/minefield attack as it re-enters that Location. A unit forced back into a Wire Location is placed *beneath* the Wire counter. A unit forced back to a Depression Location is placed IN it—not in Crest status. A unit forced back to an entrenchment/shellhole Location can derive no TEM benefit therefrom vs any ensuing Defensive First Fire, although it can for any Defensive Final Fire or subsequent attacks. A unit forced back to its previous Location is not subject to attack (even by a minefield or FFE) during its brief period in the previously-concealed unit's Location, nor can it be the subject of a Snap Shot from the firer's hex while attempting to *enter* the concealed unit's Location, but it is subject to Snap Shots/other First Fire attacks (see C.5C) when being *returned* to its previously occupied Location. Random Selection is used to determine which of multiple concealed units must lose their concealment, but all hidden Units in the Location must be placed on board beneath a "?" prior to that Random Selection. If the DEFENDER is unable to reveal a non-Dummy unit in that Location because there are none, all of his "?" in the Location are removed and the moving unit may continue its move from that Location without ever having been forced out of it. If the only concealed unit revealed is a SMC, the ATTACKER may, at his option, immediately attempt an Infantry OVR (4.15) if possible, thereby forcing the DEFENDER to immediately reveal another non-Dummy unit in the Location (if he has one).

CC **12.151 BYPASS:** A unit concealed in woods/building terrain does not necessarily lose that status due to an opposing Infantry unit using Bypass in that hex. The opposing Infantry unit must actually attempt to occupy the concealed unit's obstacle and Location (not using Bypass) to cause loss of concealment. However,

© 2000 Multi-Man Publishing, LLC

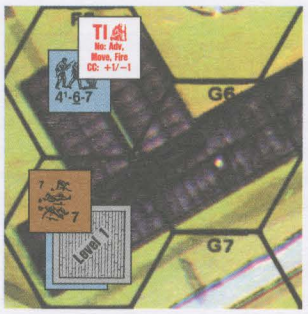
should Defensive Fire, the presence of other unknown units in the planned exit hex, or other unforeseen circumstances force a Bypass Infantry unit (or any other Infantry unit which legally ends its MPh in the same Location) to end its MPh prematurely in the Bypass Location with a concealed enemy unit, *all* concealment in that Location is lost. The previously concealed DEFENDING unit(s) may use TPBF against any units in the same Location and is also entitled to *[EXC: if the targets are already pinned; 7.83]* a -2 First Fire DRM for both FFNAM and FFMO unless the Bypass is through other than Open Ground (such as I9-H8 in 2I9). This FFMO DRM and the lack of TEM apply to units in an obstacle Location only if they were in the act of Bypass therein when First Fired upon (e.g., a berserk unit entering the same Location in non-Bypass mode would be subject only to FFNAM and the normal TEM of that Location). If the Bypassing unit cannot enter the Bypassed Location (e.g., a Fortified Building Location containing an enemy squad), the unit is forced back to the last previously occupied Location it *may* enter. During Final Fire the moving units would be entitled to full TEM for the obstacle and may attack in turn during their AFPh (Area & TPBF) if they are able. Any survivors are not considered held in Melee until after the CCPh and are therefore able to rout away in the RtPh. Mark the stack with a CC counter to indicate that Melee rules do not yet apply. Any AFV using VBM in the hex can be attacked using Reaction Fire (D7.2).

12.152 SEARCHING: As each Good Order Infantry/Cavalry MMC, or moving stack that contains ≥ one MMC, *ends* its move it may attempt to reveal concealed enemy units (/Minefields; 12.33) in Accessible hexes (including its own) by expending one additional MF in its present hex and making a Search dr, provided that all units making the attempt are neither Pinned nor using Assault Movement. Regardless of the outcome, that unit or moving stack is TI for the remainder of that Player Turn. The Final dr indicates the number of Accessible *hexes* other than its own of the ATTACKER's choice which the unit/stack may *not* Search. Such hexes may include those which the ATTACKER knows contain no hidden units (such as Open Ground or a just-traversed hex). This dr is modified as follows:

-1	Per Stealthy Searching unit
-1	Per HS equivalent > one HS Searching
+x	Leadership factor of best participating leader
+1	Per Lax or CX Searching unit (per each condition)
+2	vs Japanese *[EXC: vs building/rubble only]* (G1.63)

All Searched hexes (including all above-ground Locations in those hexes) automatically reveal their contents, including the presence of minefields (but not their type and strength) and Fortified Buildings. All enemy concealed units revealed lose their "?" (or if hidden are placed on board with a "?").

12.153 MOPPING UP: During its PFPh, an armed unpinned Good Order Infantry MMC in a multi-hex/multi-level building (Note: each hex [not Location level] of a Rowhouse must be Mopped Up separately) that contains no unconcealed unbroken enemy unit, may declare that it is becoming TI so that it may secure the building, provided it is within two hexes of every ground level Location of that building which it or a friendly unit does not actually *Control* (26.11). If necessary, two or more units in different hexes may declare Mopping Up simultaneously (e.g., so that between them they can be within two hexes of every ground level Location of that building which their side does not Control). Any hidden enemy unit(s) in the building is immediately placed in view beneath a "?", and all enemy Dummies are removed. Other concealed units remain concealed. If no concealed enemy unit remains, the building is considered secured, all its Locations Controlled, and all broken enemy units therein immediately surrender to units of the ATTACKER's choice inside that building regardless of their proximity. All Fortified Building Locations so Controlled are revealed. Mopping Up can be attempted only once per building per Player Turn but can be attempted even if no stairwell is available to reach upper levels. A rubbled/Blazing building Location is not considered part of a building for Mopping-Up purposes. Once a side employs No-Quarter/Massacre (20.3-.4), it may no longer use Mopping Up.



EX: Two German squads occupy the ground level of F5 and F6 of building 1G6, which contains a broken Russian unit on level 1 of F6. The German squad in F5 declares Mopping Up in its PFPh and becomes TI. If no hidden enemy unit is found in the building, the broken Russian squad will have to surrender. However, a hidden Russian squad and a 9-1 leader are placed beneath a "?" in G6 so the broken unit does not surrender, and the Russian may make a dr to cause Search casualties with a -2 drm (-1 drm [leader] + -1 drm [extra HS] = -2). If he rolls an Original dr ≤ 3, the TI German squad will be Reduced to a HS.

12.154 SEARCH CASUALTIES: If a Location that is Searched/Mopped-Up contains an armed Good Order unit/minefield/Residual FP/HE FFE Blast Area, or if the DEFENDER has any Booby Trap capability (B28.9), the DEFENDER may make one Casualty dr per Search dr in an effort to cause casualties to the searching/Mopping-Up unit(s). This Casualty dr (which does not involve a "?" loss action) is in addition to, not in lieu of, any attack made by the DEFENDING unit(s). A Final dr ≤ 1 causes Casualty Reduction to the Searching/Mopping-Up unit (or units if Random Selection results in a tie). This Casualty dr is modified as follows (based on the concealed status at the time of the Search dr):

-1	Per Stealthy concealed DEFENDING unit
-1	Per HS equivalent > one concealed DEFENDING HS
+x	Leadership Factor of best concealed DEFENDING leader if not alone (10.7)
+1	Per Lax concealed DEFENDING unit

12.16 RIGHT OF INSPECTION: If a stack is not concealed after play begins (2.9), the opposing player may inspect its contents—unless the stack is out of the LOS of all of his Good Order ground units, in which case he may only demand verification of action(s) taken. The required response to this demand is limited to showing only the information needed for verification. Since this would reveal Dummy stacks as soon as they move, players should simply not ask for verification of MF/MP expended by concealed moving units in exchange for not exceeding the MF capability of any concealed unit. Dummy stacks (not being Good order) will not reveal hidden Fortifications (even after entering their Location or gaining LOS to them); players should adopt an honor system House Rule to balance the desire of the moving player to find hidden fortifications vs his desire to avoid revealing whether the stack is Good Order.

12.2 CONCEALED $^5/_8$" COUNTERS: The rules of concealment apply equally to vehicles (and their PRC), Cavalry, horses, bicycles, and non-Emplaced Guns except that such concealment is lost immediately (regardless of range) whenever the unit is in the LOS of a Good Order enemy ground unit and not in Concealment Terrain (Case H of the Concealment Table), and is lost immediately if the unit moves (or is in Motion) in any way within 16 hexes and in the LOS of a Good Order enemy ground unit—even to change its CA within the same hex, regardless of the terrain it occupies (Cases B and D). A *vehicle* that sets up in a woods-road (or orchard-road) hex is considered to be in Concealment Terrain for the purposes of placing OB-designated "?" (12.12) and of using SSR-allowed HIP—but thereafter it is considered to be on the road (B13.31) and thus in Open Ground to a clear LOS traced to it along the road. A concealed vehicle in the LOS of a Good Order enemy ground unit (regardless of range) loses its concealment if hit on a To Hit Table, or by at least a "PTC" result vs its vulnerable PRC (or its corresponding DR, on the ★ Vehicle line or for OBA regardless of PRC vulnerability), or by an A-T Mine attack Immobilization result or better, on the IFT. Any Target Size DRM for a concealed vehicular/Gun target is not revealed until after the To Hit DR is made—and then only if it turns a miss into a hit (or vice versa). If a just-revealed Small Target Size (+1 or +2) DRM turns a hit into a miss, the vehicle/Gun does not lose its concealment. Only success-

© 2000 Multi-Man Publishing, LLC

fully firing a Smoke Dispenser—not just an attempt to do so—causes loss of that AFV's "?" (see D13.3). If a Gun, vehicle, Cavalry, horse, or bicycle (or SW) counter loses its hidden/concealed status (regardless of range) so does its manning Infantry or PRC, and vice versa. The BU, CE, TCA status of a concealed vehicle may be secretly recorded at setup but must be revealed when the vehicle is unconcealed. See also 12.34. When a scenario OB gives a side a number of $^1/_2$-inch "?" counters, the player may choose some/all $^5/_8$-inch "?" counters instead.

12.3 HIDDEN INITIAL PLACEMENT (HIP): A SSR may allow HIP for one or more units. HIP is a form of concealment wherein a player may secretly record the location of his units in Concealment Terrain (including the TCA/VCA for AFVs and CA for $^5/_8$" ordnance weapons) by written side record rather than placing them on board beneath "?". Hidden Status is considered the equal of concealment except as otherwise specified. Solitaire players should substitute two "?" in a side's OB for each squad-capacity of HIP that a SSR grants that side.

12.31 Once revealed, a hidden unit may never regain hidden status *[EXC: Caves; G11.75]*, although it can gain concealed status. A revealed hidden unit is totally discovered; it is not placed on board beneath a "?" unless specifically stated by a rule covering that particular situation (e.g., 11.19, 12.15, .152, .153, .32, .34)

12.32 Hidden units may not move (even within their hex or to change a CA) or advance and remain hidden. If a hidden unit is to move/advance it must first be placed on the mapboard beneath a "?"; normal concealment rules then apply to its activity. A hidden unit may sacrifice its hidden status and become concealed to prevent an opposing unit in LOS from gaining concealment or to affect an enemy unit during that unit's RtPh.

12.33 FORTIFICATIONS: Fortifications in Concealment Terrain may always set up hidden and remain hidden until use of its protective TEM is claimed, or a unit therein loses its concealment, or a Good Order enemy ground unit gains a LOS to its Location and is within 16 hexes. *[EXC to all: Minefields; B28.1.]* Fortifications set up in non-Concealment Terrain are treated as if set up in Concealment Terrain *[EXC: they also lose their HIP status due to enemy LOS regardless of range]*. A roadblock also loses HIP status if it blocks the LOS of a Good Order enemy unit to any Location. The presence (but not the actual strength) of minefields can be discovered by a successful Search (12.152). A unit entering/exiting a hidden Fortification pays no MF/MP to do so, provided that Fortification remains hidden including Infantry/Cavalry (only) crossing a roadblock hexside. Hidden Fortifications revealed by LOS during setup are placed onboard just prior to placing non-OB "?".

12.34 HIDDEN GUNS: An Emplaced (C11.2) non-vehicular Gun and its manning crew/HS *[EXC: if possessing a non-inherent SW]* may always use HIP if it sets up (i.e., starts the scenario) in Concealment Terrain, even if in the LOS of an enemy unit. An Emplaced Gun may also always use HIP if not in Concealment Terrain, provided it sets up out of the LOS of all enemy ground units—but must be placed onboard under a "?" as soon as a Good Order enemy ground unit has a LOS to it regardless of range, e.g., at the start of the first RPh. An Emplaced hidden/concealed Gun that fires is revealed if the colored dr of its Original TH DR is ≥ 5 and the nearest Good Order enemy ground Unit with a LOS to it is within 16 hexes, or if that dr is a 6 and the nearest such unit with a LOS to it is at ≥ 17 hexes; otherwise that Gun is placed (or remains) beneath a "?" *[EXC: if it is considered not to have fired (C8.9); it retains HIP if no Good Order enemy ground unit has a LOS to it when it fires at other than a FB/DB (E7); a RCL (C12.22), or a Gun firing at-zero-range/using-IFE, is always revealed if it fires while in the LOS of any Good Order enemy ground unit]*. See 12.2 for the HIP/"?" loss-gain relationship between a Gun and its manning Infantry.

12.4 VEHICULAR MOVEMENT THROUGH CONCEALMENT: The presence of any concealed unit(s) in a Location does not itself prevent an enemy vehicle from entering that Location.

12.41 OVR: Should an "unbroken" (12.1) vehicle enter a concealed enemy's Location without using Bypass or a woods-road, all concealed enemy Personnel *[EXC: those exempt from PAATC]* in that Location must instantly either be revealed voluntarily (12.14) or take one *combined* PAATC (1PAATC if any of these ordinarily take 1PAATC) using the lowest current Morale Level among them, modified by the DRM of the best unpinned friendly Good Order leader present. A Dummy stack takes its PAATC with a Morale Level of 7. If that PAATC is failed, all those subjected to it are immediately pinned and revealed. If the Location contained no Known enemy unit when the vehicle entered it, OVR expenditure is NA until the combined PAATC (if any) has been resolved, after which the vehicle may conduct an OVR if able to (D7.1). In all cases, if the PAATC is passed, those concealed units remain concealed and thus can be OVR only as Area Fire; if no OVR is made, the vehicle it still subject to attack (including *CC* Reaction Fire: D7.21) by any eligible unit(s) in the normal manner.

12.42 BYPASS: A vehicle entering a concealed enemy's Location using Bypass may not attempt an OVR as part of that entry or even be informed of any hidden unit(s) therein. Concealed unit(s) in the Location are revealed due to the vehicle's presence only voluntarily, or if the vehicle/its-Passenger(s)/Rider(s) end the MPh in that Location *[EXC: a "broken" vehicle cannot cause concealment loss; 12.1]*. Since a Bypassing vehicle occupies only the hex containing the terrain being Bypassed (C.5C), it has no effect on the concealment of any unit(s) in an adjacent hex.

13. CAVALRY

13.1 Cavalry[19] is any Personnel unit Riding a horse, and is symbolized by placing the Personnel Counter directly atop the Horse Counter. The instant Cavalry dismounts it is treated as Infantry with a separate Horse counter. Any Personnel unit that mounts a horse is considered qualified Cavalry.

13.2 STACKING: Cavalry stacking limits are equal to those for Infantry (5.5). There is no limit to the amount of unmounted horses in a hex.

13.3 MOVEMENT: Cavalry is not vehicular in nature; it has no VCA, and expends MF (not MP) as per the Cavalry column of the Terrain Chart. This column also lists all terrain types in which Cavalry/horses are NA (though movement through building hexes via Infantry Bypass is allowed; see D.2). The normal cost for Cavalry to move along a TB in woods is 3 MF. Cavalry may make a Minimum Move like Infantry *[EXC: both the Cavalry unit and its horse become CX; Cavalry does not pin (13.52)]*. Cavalry cannot receive a leader-MF bonus (see also B3.4), but a Cavalry leader may provide a leader-MF bonus (4.12) to *Infantry* if they all move as a stack throughout their MPh. See also 13.5 and 13.7.

13.31 MF COSTS: (Dis)mounting a Horse counter costs one MF of the basic 4-MF allotment of any Infantry unit (4.11), but is NA during the APh. When (dis)mounting, the unit also *loses* one MF of its basic MF allotment for every 25% of the horse's *current* MF allotment (i.e., 12, 16 or 20 MF; 13.34, 13.36) that the latter has already used/lost during that MPh, and the horse loses 25% of its current MF allotment for each MF expended (not lost) by the Infantry/Cavalry unit in that MPh prior to and during this (dis)mounting. A Horse counter may be dismounted after having been mounted/moved earlier in the same MPh, but it may not be mounted in the same MPh after having been dismounted or otherwise having moved.

EX: An Infantry SMC that moves into an Open Ground hex (one MF) and mounts a SMC Horse-counter (one MF) leaves the horse with six MF remaining out of its current 12-MF allotment. If he then declares a Gallop, he increases the horse's current MF allotment to 16 and its available MF to 10. If he wishes to dismount in the same MPh, however, he can expend no > 4 more Cavalry MF before doing so, because he must expend one MF to dismount and will also lose another MF for the 1-4 MF expended by the horse while he was Riding it.

EX: A Cavalry unit that declares a Gallop at the start of its MPh can expend no more than 15 Cavalry MF if it wishes to dismount in the same MPh, because dismounting will cause the horse to lose five MF (25% × 20 [current MF allotment] = 5 MF).

© 2000 Multi-Man Publishing, LLC



13.32 CAPACITY: A Horse counter with three horse depictions can carry *only* one squad-equivalent plus any number of SMC, while one with two horse depictions can carry *only* a HS-equivalent plus ≤ four SMC. A single animal (one horse depiction) can carry just one or two SMC. See also 13.33. If a single Infantry unit can and wishes to mount a Horse counter that is too "large" for it, that Horse counter first automatically either Deploys into two HS Horse-counters (if that Infantry unit is a HS or crew) or creates a SMC Horse-counter (if that Infantry unit is a SMC) [EXC: no SMC horse is created if the SMC will mount a Horse counter that is already carrying its capacity of MMC]. In addition, a Cavalry SMC may create a SMC Horse-counter from its MMC Horse-counter at any time during its MPh in order to move separately from the latter. Otherwise, a squad Horse-counter can be split into two HS Horse-counters only to satisfy losses or when the squad Riding it Deploys. Horse counters may Recombine when their HS Riders do (1.32), or whenever the proper number occupy the same Location while un-mounted and "accompanied" (13.7).

13.33 PORTAGE: The IPC of Cavalry equals that of Infantry, and is the maximum amount of SW it may carry. Cavalry may not dm a SW (but all SW it carries must be dm if possible), possess a Gun or Recover a SW/Gun, but may Transfer SW between friendly units if otherwise allowed. A Cavalry SMC cannot add his IPC to that of another unit.

13.34 MF ALLOTMENT: A Horse counter's basic MF allotment is 12 MF.

13.35 ENEMY UNITS: A Cavalry unit may move into/through an enemy-occupied Location during the MPh only if all enemy units therein are Unarmed/Disrupted/concealed - (see 12.15/G.4), or if it is Charging (13.6).

13.351 FPF: DEFENDER Infantry using TPBF vs Cavalry are also considered to be using FPF (and thus Area Fire). Infantry manning a Gun must use OVR Prevention (C5.64) if possible, as if the Cavalry in their hex were a vehicle conducting an OVR.

13.36 GALLOP: Cavalry may increase its MF allotment by eight (to 20) by declaring a Gallop at the *start* of its MPh, or by four by declaring a Gallop during its MPh, and placing a CX counter on the Horse counter *[EXC: Gallop declaration is NA while in a marsh, deep stream, or fordable Water Obstacle, or if the Cavalry/Horse is currently CX]*. Galloping Cavalry may not Bypass, or move into woods (unless on a road), marsh, crag, graveyard, deep stream or a fordable Water Obstacle, across an Abrupt Elevation Change, onto a one-lane bridge, INTO an Irrigated paddy (G8.12), or onto/off-of a Bank counter (G8.2112).

13.4 FIRE EFFECTS: Cavalry FP is halved as Mounted Fire except in CC or a Charge. Cavalry cannot use SW *[EXC: MOL (22.6); Thrown DC (23.6)]*, cannot use Assault/Spraying Fire, and cannot place SMOKE.

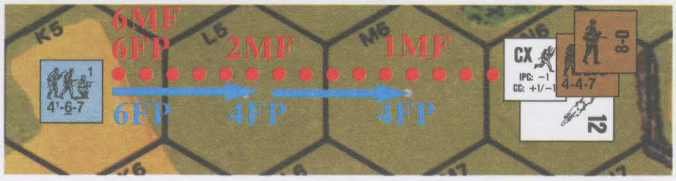
13.5 VULNERABILITY: Cavalry is always subject to a -2 IFT (or ordnance TH) DRM when fired upon *[EXC: minefield attack]*. However, this DRM is not cumulative with the FFMO/FFNAM DRM. Cavalry is not eligible for Assault Movement, nor can Infantry after dismounting use it in the same turn. Wall/hedge TEM is NA to Cavalry; shellhole/entrenchment TEM (and Hazardous Movement) is NA to Cavalry and horses.

13.51 MC: Horses have no inherent Morale Level and are not affected by MC. If Cavalry *breaks*, it must Bail Out (D6.24); its Horse counter is considered to have bolted or been destroyed and is removed from play *[EXC: if any of the Cavalry on that Horse counter remain mounted, a Horse counter just sufficient in size to carry the unbroken Cavalry remains in play]*.

13.511 Horses, whether mounted or not, are attacked using the ★ Vehicle Line of the IFT in addition to, and at the same time as, fire against any Cavalry unit(s) riding them. Horses are not subject to the -2 DRM for Cavalry or to FFMO/FFNAM. If the Final IFT DR is < the ★ Vehicle Kill #, a number of Horse counters up to the highest KIA # listed in that column (7.308) are eliminated. If the Final IFT DR equals the ★ Vehicle Kill #, one Horse counter (unless Random Selection results in a tie) suffers Casualty Reduction; all others are unharmed. Random Selection determines the Horse counter(s) affected and can include those that have just bolted (13.51) due to a MC vs their Riders. The Rider of an eliminated horse must Bail Out (D6.24) after all MC/Reduction caused by that same attack have been resolved. If a squad Horse-counter is Reduced, randomly determine which HS Horse-counter each SMC-Rider/SW was Riding; if the squad Riding that Horse counter is unaffected by that attack, it immediately Deploys in order to have one of its HS (randomly determined) Bail Out.

13.52 PIN & HEAT OF BATTLE: Cavalry and horses do not take PTC/LLMC/LLTC, and are not subject to Pin/Heat-of-Battle results.

13.6 CHARGE: Cavalry may Charge a Known-enemy-occupied Location, provided it declares a Charge vs that Location while in the LOS of and at a range of ≥ three hexes from it, is Galloping (or declares a Gallop) when it declares the Charge, can Gallop into that Location, and pays three MF (simultaneously with the cost to enter the target Location) to make the attack. After undergoing all Defense/Subsequent First Fire/FPF (see also 13.351), it then (if still able) attacks its target(s) with TPBF/MOL—(if available), neither halved for Mounted Fire nor penalized by the *horse's* CX status. Thereafter it need not declare a further Charge during that MPh until it actually enters a new target hex. Each Charging unit attacks separately unless moving as a stack (/Cavalry Wave; 13.62) with ≥ one other Cavalry unit, in which case they attack together.



EX: A 4-4-7 and 8-0 mounted on the same squad Horse-counter in 4N6 have declared a Gallop, and a Charge vs the 4-6-7 in K5. The 4-6-7 Defensive First Fires at the stack with four FP, and a -2 DRM vs the Cavalry, as they enter M6. The Original DR is a 7 which spares the horses but becomes a Final IFT DR of 5 vs the Cavalry, resulting in a 1MC which the 8-0 fails but the 4-4-7 passes. The 8-0 must now take a Bailing Out NMC which he fails, causing him to suffer Casualty Reduction—but the 4-4-7 takes no LLTC/LLMC (13.52). As the 4-4-7 Rides into L5 (second MF), the 4-6-7 Subsequent First Fires with four FP (Area Fire and PBF), still with a -2 DRM vs the 4-4-7. The Original DR is a 5, which Reduces the squad Horse-counter to a HS Horse counter; the 4-4-7 must take a 2MC (due to the Final IFT DR of 3) which it passes, but Deploys into two 2-3-7 HS because one HS must Bail Out due to the Reduction of the horses (13.511). The remaining Cavalry HS pays four MF (one for entry plus three for the Charge attack) and enters K5. The 4-6-7 then makes its mandatory FPF attack (8.312 and 13.351) with six FP (Area Fire and TPBF) but rolls an Original 10, breaking itself but leaving the Cavalry unaffected. The 2-3-7 Cavalry now makes its six-FP (TPBF) Charge attack which is resolved immediately.

13.61 POST-RESOLUTION: After resolving its Charge attack, Cavalry may remain mounted in its current hex, dismount, or enter another Location (even declaring another Charge against that Location), provided it has sufficient MF remaining to do so. If it remains in an enemy-occupied Location, it is not yet considered in Melee (although it may attack and can be attacked in the upcoming CCPh) and should be marked with a CC counter. A unit that declared a Charge in its MPh may not attack, etc., during the ensuing AFPh even if currently dismounted, and at the end of its MPh is marked with a Prep Fire counter as a reminder of its status.

13.62 CAVALRY WAVE: Cavalry may make Human Wave attacks as per 25.23-.235 (and E1.423) except as stated otherwise. Any nationality may make a Cavalry Wave attack. To declare a Cavalry Wave, at least one squad-equivalent of Cavalry must occupy each hex of the chain, no unit in the chain can be within three hexes of an enemy unit, at least one unit in the chain must be within 16 MF of and have a LOS to an enemy unit, and all units must immediately Gallop. An average of ≥ one MMC per hex of the chain and at least one leader must participate. The morale of Cavalry does *not* increase during a Cavalry Wave. At least one participating unit must Charge an enemy unit during that MPh. Each Charging unit need not end its MPh upon entering an enemy-occupied hex. Cavalry and Infantry cannot make a combined Human Wave attack.

© 2000 Multi-Man Publishing, LLC

13.7 HORSES: Horses are units, but are never considered *enemy* units. A Horse counter may be captured in the same manner as a SW via Recovery (4.44), but need not be Recovered by the side that last possessed it. No horse may be transported by vehicle *[EXC: LC; G12.12]*, portaged, or moved in the RtPh/APh or by Assault Movement. Aside from LC movement, an unmounted horse may move only if accompanied by Infantry/Cavalry, and does so at no extra MF cost to either the Infantry (using Infantry MF costs) or the horse/Cavalry (using Cavalry MF costs), but still may not enter terrain prohibited to Cavalry except via Bypass. Each unbroken Infantry/Cavalry unit can "lead" Horse counters equal to triple its own size (i.e., a SMC may lead ≤ three SMC Horse counters, a HS or crew may lead a squad Horse-counter plus a HS Horse-counter, etc.). A unit leading a Horse counter may eliminate that counter as if it were a SW. A horse itself cannot carry a SW *[EXC: Animal Pack; G10]*, and its being CX does not affect its Rider's (non-)CX status (e.g., non-CX Cavalry on a CX horse would not generate a +1 CX Ambush drm as per 11.4). See also 13.2-.52.

14. SNIPERS

14.01 Snipers are an *inherent* part of every scenario OB that has a designated SAN (14.1) of ≥ 2. Snipers are not represented by Personnel Counters, and are not subject to the complete control of either player. A Sniper counter is not a unit, and cannot be used to claim LOS.[20]

14.1 SNIPER ACTIVATION NUMBER (SAN): Each side's SAN is given in brackets in its scenario OB. A SAN is never > 7, or subject to increase *[EXC: at Night (E1.76); DYO Seaborne Assault (G14.261)]*. If a SAN is (reduced to) < 2, that Sniper counter is removed from play and that side may make no (further) Sniper attacks. A player is subject to Sniper attack during any PFPh, MPh, DFPh or AFPh whenever he makes a TH, MC, TC, non-OBA IFT, or Entrenching, Original DR *[EXC: those made for Prisoners]* equal to the enemy SAN. Any such DR that can yield no game result other than a SAN is not made *[EXC: the DR required for an attack negated by blocked LOS (6.11) is made]*. The Sniper attack occurs after resolving all effects of the DR that activated it, but not before resolving (14.3) all (if any) Sniper attacks made prior to it.



14.2 TARGET SELECTION: Prior to the start of play, each player (DEFENDER first) places one friendly Sniper Counter in an unoccupied hex within six hexes of ≥ six enemy-occupied (including enemy "?", but excluding the enemy Sniper counter) hexes if possible. If this is not possible, it must be placed in an unoccupied hex within six hexes of ≥ five enemy-occupied hexes, etc., (thus it may be set up anywhere if no enemy unit sets up onboard). Thereafter, it may be repositioned by the Sniper player (within the same placement requirements) if he forfeits an effective Sniper attack dr (dr 1 or 2 following a DR equal to his SAN) prior to selecting the hex for that forfeited Sniper attack. Whenever a Sniper attack is called for, a dr (Δ) is made to determine the result of the attack (14.3). If that dr is a 1 or 2 (and the Sniper player does not forfeit his attack), he must then (but not before all Sniper attacks made prior to his have been resolved as per 14.3) make a Random Location DR to determine the target hex (i.e., as if determining where a SR [C1.31] will land, but with no Initial Accuracy dr) and move his Sniper counter to that hex. If that new target hex Contains > one Location occupied by an eligible (14.22) enemy unit(s), the Sniper player selects which of those Locations to attack. Should the target Location be occupied by > one eligible (14.22) target, use Random Selection to determine the target(s) in that Location *[EXC: prior to Random Selection, the Sniper may choose one of the following (if present in that Location) as its target: the enemy Sniper counter; a Vulnerable Inherent Crew; or an unarmored vehicle; if any eligible target is concealed, see 14.23]*. If the Random Selection results in multiple targets, only one (Sniper's choice) is attacked by the initial Sniper attack dr; the others are each subject to a new Sniper dr. The Sniper attack is resolved against the selected enemy target(s), with two exceptions:

14.21 ALTERNATE TARGET: If the present target hex contains neither an eligible target (14.22) nor the enemy Sniper counter, the attacking Sniper counter is moved to, and will attack, the hex closest (in hexes) to that target hex which does contain one/both of them. Should ≥ two such hexes be equidistant, the Location with the lowest TEM is the target. Only the *lowest* (to a minimum of *zero*) in-hex TEM/SMOKE DRM applicable to any eligible target currently occupying that hex, regardless of LOS, is considered in the comparison *[EXC: the +1 HA TEM, and the +1 Factory (but not that building) TEM, are NA]*. Hidden Fortifications (e.g., entrenchments, Fortified Building Locations) *may* be revealed at this time. If the target hex is still undetermined, the Sniper player chooses which of those equidistant hexes to attack.

14.22 NON-TARGETS: All units are eligible Sniper targets except AFV with no Vulnerable PRC, units in subterranean *[EXC: Caves; G11.8]* or Interior-Building Locations, prisoners, or hidden/friendly/Aerial units. Enemy PRC are Vulnerable to Sniper attack if they are CE and/or occupy a Partially Armored AFV or unarmored vehicle. An unarmored vehicle with no PRC (14.33) can be considered an ineligible target at the Option of the Sniper player.

14.23 CONCEALED TARGETS: If the eligible possible targets include both concealed and unconcealed units, treat the concealed stack as one possible target (regardless of how many units it actually contains) for Random Selection purposes. Then, if a concealed stack is chosen as the sniper's target (either per the above Random Selection or if all units are concealed), the sniper player's opponent must declare the number (only) of eligible possible targets that stack contains. If it contains none (i.e., is a Dummy stack), it is automatically eliminated. If it contains one, that unit is selected. If it contains two or more, the player rolls for Random Selection accordingly.

14.3 RESOLUTION: A Sniper attack is resolved by the same "1" or "2" dr that caused it. There are *no* modifications to a Sniper attack, nor does concealment/cowering affect it. A Sniper attack never causes a Collateral Attack or leaves Residual FP, but always inflicts DM on all broken enemy units in the attack Location (10.62). Otherwise, a Sniper attack is resolved as follows:

dr 1: Eliminates SMC, Dummy stack, or (as per 14.4) Sniper; Stuns and Recalls CE crew; breaks MMC (or Reduces MMC that does not break); breaks Inherent crew of unarmored-vehicle/Partially-Armored-AFV; immobilizes unarmored vehicle (see 14.33).

dr 2: Eliminates Dummy stack; Wounds SMC; Stuns CE crew; pins MMC not immune to Pin results, Inherent crew of unarmored-vehicle/Partially-Armored-AFV, or Sniper (14.31).

In addition, the Sniper attack is considered resolved only after the full resolution of all further Sniper attacks generated by Random Selection (14.2), all LLMC/LLTC/Heat-of-Battle DR, etc.



14.31 vs SNIPER: An enemy Sniper can be attacked only by Sniper Check (14.4) or if its Sniper counter is selected as the target of an enemy Sniper attack. An enemy Sniper counter is considered part of every Location in the hex it occupies. A pinned Sniper has its counter flipped to its red-on-white side, and forfeits all further attack and repositioning (14.2) opportunities during that Player Turn.

14.32 vs CC: A Sniper attack can attack an enemy unit(s) in Melee without also possibly harming the friendly unit(s) in that Melee.

14.33 vs UNARMORED VEHICLE: An unarmored vehicle *and* its PRC cannot be attacked by the same Sniper dr. A Sniper attack vs an unarmored vehicle itself can only immobilize it, and only if the Sniper dr were a "1". There is no further effect vs an already-immobilized unarmored vehicle if it is immobilized again. See also 14.22.

14.4 SNIPER CHECK: After resolving (14.3) an effective Sniper attack (dr 1 or 2), any unpinned, non-TI, armed Good Order Infantry/Cavalry unit in the target Location which has not yet fired/moved during that Player Turn may attempt to eliminate that Sniper, and will do so on a Sniper Check Final DR of ≤ 2. A Sniper Check Final DR of 3 pins the

© 2000 Multi-Man Publishing, LLC

Sniper. All eligible participating units in the target Location become TI, and must make one combined Sniper Check DR so as to maximize benefit from those Sniper Check DRM.

DRM	CAUSE
+x	Leadership factor of one leader directing any unit other than himself making the Sniper Check
-1	Each participating hero
-1	Each participating crew/HS equivalent

A Sniper Check or attack vs a Sniper (14.3) which eliminates a Sniper reduces that side's SAN by one for the duration of the scenario. Mark the new SAN on the SAN track of the Scenario Aid Card. If the SAN is reduced to 1, remove the Sniper Target Selection counter from the game.

EX: An 8-1 leader making a Sniper Check would not qualify for any DRM because a leader cannot modify his own DR. An 8-1 leader with a HS would receive a -2 DRM (-1 for leadership and -1 for a HS taking the Sniper Check). An 8-1 leader, a squad, and a HS would receive a -4 DRM (-1 for leadership, -1 for the HS, and -2 for the squad).

15. HEAT OF BATTLE

15.1 HEAT OF BATTLE: The cauldron of battle, which destroyed so many units that failed the test of arms, could also forge better soldiers and/or acts of desperation borne of heroism or despair. This process is reflected by a Heat of Battle DR which follows any Original MC or Rally (not Self-Rally) DR of 2. Unarmed units, Cavalry, PRC, Heroes, crews (including both inherent and Temporary Crews; 21.22), participants in a Human Wave attack, already berserk units, Climbing/Swimming/Wading units, and units in boats/on parachute counters are not subject to Heat of Battle. The Heat Of Battle DR is subject to the following cumulative DRM. The +1 DRM for a broken unit applies even if the unit rallied as a result of the 2 DR which allowed the Heat of Battle DR. A Final Heat Of Battle DR of 5 or 6 results in both Hero Generation and Battle Hardening.

HEAT OF BATTLE	
DR	Result
≤ 6	Hero Creation (15.21)
5-8	Battle Hardening (15.3)
9-11	Berserk (15.4, 15.44)†
12	Surrender (15.5)*

HEAT OF BATTLE DRM	
-1	Elite, British, Finnish (each)
+1	Broken, Inexperienced (each)
+1	French, Partisan
+2	Russian, Allied Minor
+3	Axis Minor, Italian
+4	Japanese

* Non-elite Italian/Axis Minors Surrender on a Final Heat of Battle DR ≥ 10.

* *Treat as Berserk if:* Japanese, Gurkhas, Partisans, Fanatics, Commissars, SS vs Russians, or subject to No Quarter (15.5)

* *Treat as Battle Hardening if:* Japanese in Pillbox (G1.62) or Cave (G11.97); or if Assaulting/Evacuating side in a Beach Location (G14.32)

† *Treat as Battle Hardening if:* no Known Enemy units in LOS (15.44); Japanese in Pillbox (G1.62) or in a Cave (G11.97); its closest Know enemy unit is in Ocean (G13.491)



15.2 HEROES: A hero is represented by a SMC with a Strength Factor of 1-4-9. If it fails a MC, the hero is considered wounded and the counter flipped to the wounded side where it displays a Strength Factor of 1-3-8 and must undergo a Wound Severity dr (17.11). If a wounded hero fails a MC it is eliminated; a hero never breaks or goes berserk and is not subject to Cowering or enforced Pin results *[EXC: Minimum Move (4.134), Wounds (17.2), PF Checks (C13.31) and Collapsed huts (G5.5)]*. A hero's current printed Morale Level is never lowered by any cause, but could be increased to 10 (9 if wounded) by various causes (A.18).



15.21 CREATION: A hero is randomly created from other Personnel types (even if broken) during the course of play by a subsequent Final Heat Of Battle DR ≤ 6. A leader which becomes heroic automatically rallies and retains his leadership modifier and all leader capabilities (as well as any higher morale rating; a 10-2 or 10-3 leader would be considered a 1-4-10 hero; 1-3-9 if wounded). A leader that becomes heroic is marked with a generic Hero counter (1-4-9X) as a reminder that it retains both its leadership (or commissar) benefits and heroic qualities. A heroic leader may not combine his heroic DRM with his leadership DRM. However, should a heroic leader be eliminated, he can still be the cause of a LLMC. A MMC which creates a hero is not affected in any way (other than possibly also increasing in value due to Battle Hardening). The hero shares the MMC's fire/movement status at the time of creation; i.e., if the MMC was marked with a Prep Fire or TI counter, so is the hero.

15.23 WEAPONS USE: A hero may fire and carry a SW as if he were a leader but applies a -1 DRM to its To Hit or IFT DR. In addition, a hero uses a SW normally requiring two men to fire by adding +1 to its To Hit or IFT DR as appropriate (which is negated by the heroic DRM). A hero forfeits his own inherent FP during any phase in which he uses a SW. A hero may fire any Gun ≤ 82mm that normally requires a crew as if it were captured and being fired by an enemy crew (21.11 & 21.12), but his heroic DRM does not apply. If firing a Gun > 82mm, it may fire only once per Game Turn and only during the MPh/DFPh. A hero cannot change the CA of a NT weapon *[EXC: if its M# (C2.27) is ≥ 9]*. A hero is the only unit which may fire an AFV AAMG while a Rider.

15.24 HEROIC DRM: A hero/any FG (even if just another SMC) he is part of (providing the hero is firing at Normal Range of either his inherent FP or his weapon counter) may deduct one from its IFT/CC resolution DR. This DRM is cumulative with that of any applicable leadership DRM/additional heroes present in the same attack. Unlike a leader, a hero's IFT DRM is not contingent on being in the same Location with all other members of the FG or in combination with another unit. A hero is always considered Stealthy, and may use his DRM for Clearance attempts. A hero's participation does not exempt other members of a FG from Cowering. The heroic DRM is NA for FT/DC attacks.

15.3 BATTLE HARDENING: An armed Personnel Unit can also benefit from a form of Unit Substitution whenever it rolls a 5-8 Final Heat of Battle DR (see also 15.44). This Battle Hardening effect improves the unit in Class (even if broken) by exchanging it for an unbroken, unpinned unit of the same size but the next higher quality. When substituting a unit of the next higher quality, none of the numbers of its Strength Factor can decrease and, if given a choice between two different unit types of the next higher class, must use the one which gains the least (e.g., a German 2-4-7 HS must be exchanged for a 2-4-8 HS; not a 3-4-8 SS HS). Battle Hardening can be refused. A leader which becomes Battle Hardened is exchanged for the next higher grade leader; i.e., a 6+1 becomes a 7-0, an 8-0 becomes an 8-1, or a 9-2 becomes a 10-2; a Finnish/Japanese 9-1 becomes a 10-0. An already elite MMC (or best possible leader or partisan) which is Battle Hardened also becomes Fanatic (10.8) and is marked with a Fanatic counter. It remains Fanatic for the remainder of the game even if subsequently Replaced or Reduced but cannot attain any loftier status due to yet another Battle Hardening result.



15.4 BERSERK: Berserk units are created from infantry by a Final Heat of Battle DR of 9-11 *[EXC: non-elite Italian/Axis Minor Personnel units surrender (15.5) on a Final Heat of Battle DR ≥ 10]*. Mark units with a BERSERK counter when they go berserk. A broken unit which goes berserk is automatically rallied.

15.41 LEADER CONSEQUENCES: When a leader goes berserk, he must (after first resolving any fire attack vs any other targets in that Location) attempt to change any *[EXC: units not normally subject to Heat of Battle]* other friendly units (even if broken or not subject to that same attack) in the same Location to berserk status also. Each such unit must take a NTC subject to the berserk leader's modification. If they pass the Berserk TC they become berserk; if not, there is no change to their status. After the Berserk TC, the leader forfeits his leadership DRM until he returns to normal.

15.42 MORALE: Berserk units assume a base Morale Level of 10. If a berserk unit fails a MC it is not broken, but suffers Casualty Reduction. A berserk unit never takes a PAATC, nor a LLMC/LLTC, and never breaks, cowers, or becomes pinned except due to PF/ATMM Checks (C13.31, C13.7), Minimum Move (4.134), or Collapsed huts (G5.5). A berserk unit never has its Morale Level lowered by any cause and automatically loses any CX, TI, Concealment or pinned status. However, a berserk unit never receives the leadership benefit of a friendly leader even if this deprives Good Order units of such benefits.

© 2000 Multi-Man Publishing, LLC



15.43 CHARGE: At the start of the MPh, each non-Melee berserk unit must charge the nearest (in hexes not MF) Known enemy unit in its LOS and must (if it has sufficient MF) enter its Location *[EXC: pillbox (B30.4); Fortified Building (B23.922)]* during that MPh in an attempt to destroy it in CC. If equidistant, the ATTACKER may choose which of those hexes he will charge. If multiple berserk units of the same side occupy the same Location they must move together as one combined stack unless they will require different MF expenditures to exit their Location (e.g., units inside and outside a foxhole in the same Location) or one is wounded and one is not.

15.431 All berserk units have eight MF *[EXC: Wounded still have only three MF (17.2)]*—a total which can never be increased *[EXC: road bonus (B3.4); downhill skiers (E4.31)]*. A unit which becomes berserk while still moving (i.e., not pinned or wounded) must use the remainder of its MPh to charge. The unit's MF allotment for the rest of that MPh is eight minus whatever MF it has already expended during that MPh. At the start of its MPh before charging, a berserk unit must abandon any SW which individually costs more than 1 PP or which in combination with other 1 PP SW is in excess of its IPC, but may use them in the DFPh/AFPh prior to that, and must still carry those it can retain (DC can only be Thrown—not Placed or Set). A berserk unit never qualifies for Assault Movement even if its "charge" consists of just one hex, nor may it move in the APh but it may Dash across a road.[21] The charging unit must take the shortest route (in MF) to the enemy unit, including the use of Bypass (counting Wire as 1 MF for purposes of this calculation only). If, in the act of charging the nearest Known enemy in its LOS, the berserk unit moves into the LOS of a closer (in hexes) Known enemy unit, he charges that unit from that point instead. Similarly, if it moves into a concealed enemy's Location and reveals it (12.15) while charging another unit, the berserker must remain in this hex and attempt to eliminate all enemy units therein instead. Should the only Known enemy unit no longer be in his LOS in the interim, the berserk unit still charges toward the hex originally occupied by that unit. If it still sees no Known enemy unit, it ends its move after entering that Location, and the berserk status is removed at the end of that current phase. Otherwise, it continues its charge to the now nearest Known enemy unit.

CC **15.432** A berserk unit must enter a Known enemy occupied Location during the MPh if it has sufficient MF and, as such, may possibly force any DEFENDING Infantry therein to attack them with FPF. If the only Known enemy unit is a lone SMC, a berserk MMC will immediately conduct an Infantry OVR (4.15) with neither the NTC nor increased MF normally required and without the option of the SMC entering a new hex. The berserk unit may also attack with TPBF during its AFPh, but this TPBF is halved due to taking place in the AFPh. Survivors are not yet held in Melee, and the stack is marked with a CC counter to indicate this. Because a berserk unit must charge in its MPh, it may never fire during its PFPh—even if ADJACENT to the Location it must charge. However, it may fire during its AFPh (not Opportunity Fire) and DFPh/opponent's MPh. A berserk unit does not take prisoners. Berserk units are always Lax (11.18) in CC.

15.44 NO ENEMY IN LOS: If a unit suffers a berserk result, but has no Known enemy unit in its LOS at that time, the result is changed to Battle Hardening.

15.45 TERRAIN RESTRICTIONS: A berserk unit will not charge through unbridged Water Obstacles, nor a cliff, nor a Blaze; it will charge the next nearest Known enemy unit instead unless an alternate route to the nearest known enemy unit is still closer than the next nearest known enemy unit. If there is no other Known enemy unit, 15.44 applies. However, a berserk unit will move into minefields, FFE/Wire during a charge.

15.46 RETURN TO NORMAL: A berserk unit loses its berserk status and returns to Good Order whenever it (or the group it attacks with) eliminates all (but at least one) Known enemy units in its Location with either TPBF (halved) or FT during the AFPh or CC, or if at the end of a charge there is no Known enemy unit in its LOS (15.431).

15.5 SURRENDER: A Final Heat of Battle DR ≥ 12 causes the affected unit to become broken if it is not already, and Disrupted (19.12), and to Surrender immediately to any ADJACENT Known Good Order enemy Infantry/Cavalry as if they shared the same Location.[22] If no such enemy unit is ADJACENT, the unit is only Disrupted instead *[EXC: Units subject to No Quarter, Japanese, Gurkhas, Partisans, Fanatics, and Commissars never surrender by the RtPh method nor do SS vs Russians (20.21); nor do they become Disrupted whether thusly ADJACENT or not. They instead become berserk on a Final Heat of Battle DR ≥ 12].*

*16. BATTLEFIELD INTEGRITY

[In recognition that even simple record keeping is offensive to many, this rule is considered optional. Battlefield Integrity rules are never used in any scenario where either side begins play with less than ten squad-equivalents. However, occasionally, Battlefield Integrity will apply to only one side—as indicated by the presence or absence of the bracketed total number of MMC BPV in the starting OB for each side on the Turn Record Chart.[23]]

16.1 INTEGRITY BASE: The integrity Base is the number of MMC points a side can lose before it must check for Battlefield Integrity. The Integrity Base for each side is 10% (FRU) of the number printed to the left of the Turn 1 box on the Turn Record Chart. In DYO scenarios, players must sum the BPV of all MMC (not inherent crews) in their starting OB and divide by ten (FRU) to determine their Integrity Base. As play proceeds, each player is responsible for keeping a running Casualty Tally of the BPV of all eliminated/captured enemy MMC *[EXC: Rejected Prisoners; 20.3]* on the Casualty Tally Track of the Scenario Aid Card. Mark the Integrity Base for each side by placing their Integrity Base counter on the proper box of the Casualty Tally Track. When the Casualty Tally marker passes or lands on its Integrity Base counter, the Integrity Base is immediately subtracted from the Casualty Tally to start a new Casualty Tally, that side's Infantry marker is moved one box to the right on the Previous Integrity Base Loss Track of the Scenario Aid Card, and the opposing player must immediately check for Battlefield Integrity.

16.11 BPV losses due to Deployment or Unit Substitution (19.13) or the rejection/massacre of prisoners are ignored. Only the BPV of eliminated/captured MMC (not inherent crews until they take counter form) is recorded. When a squad is Reduced to a HS, the difference in BPV of the squad and HS is added to the Casualty Tally. Point values for prisoners are not doubled nor are they counted again for elimination after already being counted once as prisoners, nor are they restored due to escape. The BPV of any MMC lost must be added to the Casualty Tally, even if those units were not present at the start of a scenario.[24]

16.12 Whenever a player receives reinforcements, he adds 10% (FRU) of the BPV of all MMC in those new arrivals to his Integrity Base to derive a new Integrity Base for use thereafter and moves the Integrity Base counter along the Casualty Tally Track accordingly.

EX: The Russian OB consists of 400 MMC BPV, giving him an Integrity Base of 40. Upon loss of a MMC which brings his current Casualty Tally to 43, he subtracts the Integrity Base of 40, leaving him with a new Casualty Tally of 3, and takes a Battlefield Integrity Check. He must lose another 37 MMC BPV before his opponent can make him take another Battlefield Integrity Check. If, in the meantime, he receives MMC reinforcements worth 41 points, his new Integrity Base will be 45 so he shifts the Allied Integrity Base Counter from 40 to 45 on the Casualty Tally Track. Those same 41 points of reinforcements will entitle him to a -2 DRM when attempting to regain ELR (16.3).

16.2 INTEGRITY CHECK: Whenever a player's Casualty Tally is ≥ his Integrity Base he must make an Integrity Check DR. If this Final DR is ≥ 12, the current ELR of all his forces is immediately lessened by one until changed by another Integrity Check. The Integrity Check DR is subject to the following cumulative DRM:

© 2000 Multi-Man Publishing, LLC

Case	DRM	Cause
A	+1	Per Integrity Base Loss (e.g., +1 for 10% losses, +2 for 20% losses)
B	+1	Enemy Unopposed Armor** or Air Support (+2 if both apply)
C	+x	x is leadership modifier of best friendly Good Order leader*
D	-1	Friendly Unopposed Armor** or Air Support (-2 if both apply)
E	+1	Side has no Good Order leader

*Remember that leadership modifiers are usually negative, so this DRM is in effect usually subtracted. Armor Leaders are applicable.

**Unopposed Armor is defined as any Known Mobile and functioning AFV with a Final TK# < 5 when theoretically hit at 12 hex range by a same-level shot vs its weakest side Target Facing AF without benefit of a CH by the best opposing AFV/Gun (using its normal AP or HE ammunition) currently on the mapboard. Unopposed Armor/Air Support must be actually present on board—not waiting offboard and not under Recall.

16.21 ELR can continue to drop—due to subsequent Battlefield Integrity Checks—to a minimum of 0. Any change in ELR takes effect immediately; i.e., prior to the next MC resolution.

EX: The Russians, whose best Good Order leader is a 9-1, have just suffered losses ≥ their Integrity Base for the first time. Neither side has an AFV or Air Support on the board. Therefore the Russian must take an Integrity Check DR with a +1 DRM for Case A, and a -1 DRM for Case C for a total DRM of 0. The Russians will lose an ELR at this time only by rolling an Original Battlefield Integrity Check DR of 12.

16.3 REGAINING ELR: A player may occasionally attempt to regain lost ELR (one level at a time) by making another Integrity Check Final DR ≤ 2. However, he may ignore all positive DRM and apply all negative DRM he qualifies for. A player may immediately attempt to regain ELR in this manner once per Player Turn as a result of receiving MMC or armor reinforcements during that Player Turn (or Air Support or an OBA FFE successfully placed on an opposing force so that at least one Known enemy unit and no friendly units lie within its Blast radius; Harassing Fire & SMOKE NA) and once per Battle Hardening of a friendly leader immediately after that event. The arrival of MMC reinforcements qualifies the receiving player for a -1 DRM for each 10% (FRU) increment of the current Integrity Base that his reinforcements amount to. A side may not gain ELR it has not lost, nor can it save opportunities to regain ELR until a later time. If an ELR Final Integrity Check DR is ≤ 2, all present cumulative Integrity Base Loss DRM are eliminated and the corresponding ELR marker is returned to 0 on the Previous Integrity Base Loss Track of the Scenario Aid Card. Therefore, a player may attempt to regain ELR it has not lost even though it cannot regain that ELR yet, merely in the hope of voiding all previous cumulative Integrity Base Loss DRM if they are successful.

17. WOUNDS



17.1 OCCURRENCE: Wounds are accounted for only when they occur to a SMC, thereby diminishing their abilities but still leaving them in play. A wound occurs as a result of Casualty Reduction or Sniper attack. In addition, an unwounded hero is considered wounded instead of broken whenever it fails a MC. A wounded leader must be marked by a "Wound" counter; a wounded hero is merely flipped over to its 1-3-8 side.

17.11 SEVERITY: Whenever a SMC is wounded, another dr must be immediately made to determine the severity of the wound. On a dr of 5 or 6, the wound is considered mortal and is treated as a KIA instead. On a dr of 1-4, the wound is minor. A wounded man who is wounded again must add a +1 drm to his Wound Severity dr. There is no additional penalty for being wounded more than once.

17.2 MOVEMENT: A wounded man is reduced to three MF (even if berserk/during the RtPh) except while being carried by any form of conveyance (in which case he is considered to have 4 MF), has an IPC of zero, and cannot Double Time. A SMC who becomes wounded (e.g., by Defensive First Fire) after already expending > 3 MF is pinned. A wounded man who is not portaging a SW may be carried by any Good Order MMC at a cost of five PP. A wounded leader's two MF bonus for accompaniment throughout the MPh still applies.

17.3 EFFECTS: A wounded man has his Morale Level *[EXC: berserk]* and leadership (not his heroic DRM) modifier reduced by one (a leadership modifier of 0 becoming +1, one of +1 becoming +2, etc.). However, he is otherwise unimpaired; he may fire a SW or use a radio normally and does not require other units in his hex to pass a LLMC/LLTC due to his wound. A SMC never loses more than one Morale Level and one Leadership DRM due to wounds—even if wounded several times.

18. FIELD PROMOTIONS

18.1 Leader creation during play may occur in either of two ways.

18.11 SELF-RALLY: The *first* MMC Rally attempt of a player's *own* RPh may be performed as Self-Rally regardless of Self-Rally capability (10.63) in an attempt to rally that MMC, provided there is no Good Order leader in that Location and the broken unit is not *Disrupted (19.12)*. If this Self-Rally attempt results in an Original 2 DR, the MMC is rallied and, in addition, the ATTACKER may roll on the Leader Creation Table with a +1 drm for having been broken prior to the Self-Rally 2 DR. Any Original DR other than 2 during the Self-Rally attempt is handled as a normal Self-Rally attempt, so the broken unit can still rally without a Field Promotion taking place even if it is not normally capable of Self-Rally.

18.12 CCPh: Anytime a MMC attacking in CC rolls an Original 2 DR, the player makes an immediate dr on the Leader Creation Table. If this results in the creation of a leader, that leader must add his leadership to the Original 2 CC DR that created him (even if the modifier is a +1), and possibly changing its odds due to his one Inherent FP. Unless one or both sides Withdraw due to Infiltration (11.22), both attacks are re-figured using both of the originally-rolled Original DRs and the new leader's FP/Leadership just as if he had been there all along.

18.2 The quality of leader created is based on a dr on the Leader Creation Table plus any cumulative drm for nationality, unit type, and status (including the Morale Level of the unit at the time of the Original 2 DR). If more than one type of MMC made the CC attack which created the leader, the MMC with the highest BPV involved is used to determine any Leader Creation drm; if necessary, use Random Selection to determine which MMC that leader defends with. The existence of DM is not a factor. A created leader cannot be refused. The creation of a leader does not harm the base MMC unit from which it is derived.

A18.2

LEADER CREATION TABLE*		LEADER CREATION drm	
die roll	Leader Type Created	drm	Cause
≥ 7	None	-1	American, British, German
6	6+1	-1	CC vs AFV or Per odds column
4, 5	7-0		< 1-1
2, 3	8-0	-1	Base unit has Morale Level ≥ 8
≤ 1	8-1	+1	Base unit has Morale Level ≤ 6
		+1	Base unit was broken
		+1	G.M.D., Russian, Italian

* = NA to Finns or Japanese

EX: If a German 4-3-6 rolls an Original 2 DR in CC at odds of 1-4, the final Leader Creation drm is -2 (-1 for being German, -2 for CC attack at 1-4 odds, and +1 for having a Morale Level of 6). If a Russian 4-2-6 attempts Self-Rally and rolls an Original 2 Rally DR, the subsequent Leader Creation drm is +3 (+1 each for having a Morale Level ≤ 6, being broken and Russian).

© 2000 Multi-Man Publishing, LLC



19. UNIT SUBSTITUTION

19.1 EXPERIENCE LEVEL RATING (ELR): All OB forces in each scenario will specify a given number of Elite, 1st Line, 2nd Line, or Green/Conscript squads/HS with which each Player starts the game. However, during the course of play, each of these units is subject to possible Replacement by poorer quality squads/HS, depending on the interaction of fire, fate, and the prior experience level of the unit. Each scenario OB will list an ELR for that group of units as a number ranging from 0 to 5. This number represents the maximum amount by which an unbroken squad/HS/leader may fail any MC (after modification) without being Replaced by a lesser quality squad/HS/leader. Thus, an unbroken squad/HS/leader with an ELR of 1 would automatically be downgraded if it broke with a MC DR two or more > the number it needed to avoid breaking. Mark the current ELR level for each OB on the ELR Track of the Scenario Aid Card with any appropriately colored Infantry counter not in use.

19.11 ELR IMMUNITY: All crew-types, Commissars, Heroes, unarmed and already broken units are never subject to Replacement due to ELR failure.

DISRUPT
No:
Nml Rout
Self Rally

19.12 DISRUPTION: Should an unbroken squad/HS/6+1 leader which cannot be Replaced by a lower quality unit fail a MC by more than its ELR, it is broken and marked with a Disrupted counter *[EXC: Partisans, Commissars, Gurkhas, U.S. Marines, Japanese (and SS when opposed by Russians), Fanatic units, and PRC are never Disrupted; only broken]*. Non-6+1 leaders become Disrupted only by Heat of Battle (15.5). A Disrupted unit may not Self-Rally. Unless rallied by a leader first, a Disrupted unit will surrender at the start of any RtPh it begins ADJACENT to, or during any phase it occupies the same Location as, a Good Order Known enemy Personnel unit not in Melee *[EXC: No Quarter 20.3]*. Disrupted infantry do not rout unless in an Open Ground (as per 10.531) or Water Obstacle hex (as per B21.43) or if the only armed enemy units ADJACENT are in-Melee/berserk/vehicular (20.21) and may not use Low Crawl *[EXC: Night (E1.54)]*. Disrupted Personnel remain Disrupted until rallied or captured. Disrupted units do not prevent enemy movement into or through their hex (4.14). but do prevent rout toward or through them (10.51). Disrupted units in Melee may not Withdraw; unless captured, they will be eliminated at the end of the CCPh if still in Melee.

19.13 REPLACEMENT: An unbroken Personnel unit which fails a MC by an amount > its ELR is immediately Replaced by a broken Personnel unit of lesser quality but the same size. *[EXC: A squad with an underscored Morale Factor is Replaced by its two broken HS (even if its ELR has dropped below 5); a HS with an underscored Morale Factor is Disrupted instead unless exempt per 19.12. A Casualty MC (10.31) failure which also exceeds a squad's ELR causes that squad to be Reduced to a broken HS of lesser quality.]* When Replacing a Personnel unit with one of lesser quality, none of the individual parts of the Strength Factor may increase, and at least one must decrease. When replacing a MMC, the unit's Class must also decrease (i.e., a 1st Line squad/HS cannot be replaced by another 1st Line squad/HS even if all of the individual factors of its Strength factor are less). An unbroken leader which fails a MC by more than its ELR is immediately Replaced with a broken leader of the next lower quality (i.e., a 9-2 is Replaced by a 9-1, a 9-1 is Replaced by an 8-1, etc.).[25]

19.131 AMMUNITION SHORTAGES: Unit Replacement can also occur if a SSR cites a side's on board OB as being afflicted by Ammunition Shortages, in which case any MMC of that side which rolls an Original 12 DR on the IFT while using its Inherent FP suffers Unit Replacement *after* the attack which caused it is resolved. Any MMC subject to, but incapable of, further quality loss is broken *after* resolution of the attack, unless berserk. Not all members of a FG would be subject to Unit Replacement; determine the MMC affected by Random Selection after malfunction or elimination of applicable SW. Unit Replacement does not occur as a result of a 12 To Hit DR, but A.11 would apply because all B# and Ammunition Depletion Numbers are decreased by one during an Ammunition Shortage. All vehicles and Guns are considered to have a circled B# (D3.71) one lower than their inherent B# during an Ammunition Shortage. Those which already have a circled B# start play with a Low Ammo counter already in place. Ammunition Shortages have no effect on CC, Sniper, or Residual FP attacks, but do prevent placement of Fire Lanes.

19.132 Whenever a SSR (not just an OB) specifically assigns an ELR ≤ 4 to units with an underscored Morale Factor, they suffer Unit Replacement normally regardless of the severity of the quality drop thereby resulting (e.g., a German 6-5-8 → a 4-4-7; a British 6-4-8 → a 4-3-6). Likewise, with a mixed OB of MMC both with and without an underscored Morale Factor, an ELR ≤ 4 would apply to those MMC with an underscored Moral Factor only via SSR.

19.2 GREEN & CONSCRIPT TROOPS: During WWII many nations were forced to use hastily raised and poorly trained troops.[26] Green and Conscript troops represent the bottom rung of the quality ladder, and both are governed by the rules for Inexperienced Personnel. Neither Green nor Conscript troops may ever use Stealth advantages (even a Green squad accompanied by a leader; 19.3). SMC/crews are never considered Green or Conscript.

19.3 INEXPERIENCED PERSONNEL RESTRICTIONS: A Green MMC stacked with an unbroken leader is exempt from the restrictive rules of Inexperienced Personnel, which always apply to Conscripts/Unarmed-units regardless of leader presence.

19.31 MOVEMENT: Except in a Player Turn when being carried by or mounting/dismounting any form of conveyance, Inexperienced Personnel have a basic MF allotment of three—not four, but can still use the two MF bonus for movement in a stack with a leader. Green Infantry moving in such a stack have the normal six MF—not five. Berserk/HW Inexperienced Infantry still receive eight MF.

19.32 SW: The Breakdown Number (even inherent B#/X#; 9.7) of any SW used by Inexperienced Personnel is reduced by one.

19.33 COWERING: Inexperienced Personnel or a FG containing Inexperienced Personnel which cowers (7.9) must shift two columns to the left on the IFT for that attack. A mixed FG of regular and Inexperienced Personnel may thus prove to be a liability because the presence of the latter may penalize the performance of the FG as a whole.

19.34 PAATC: Inexperienced Infantry taking a PAATC must pass a 1TC—not a NTC. The CCV of inexperienced infantry is always one less (11.5).

19.35 CAPTURE: The attacker may apply a -1 DRM (instead of the +1 DRM for a normal capture attempt) when attempting to capture an Inexperienced Personnel unit (20.22) in CC.

19.36 LAX: Inexperienced Personnel are Lax (11.18).

20. PRISONERS

20.1 VALUE: Every unit which surrenders or is captured and still under guard at the end of a scenario is worth double its normal Victory Condition value.

20.2 CAPTURE: Berserk units can neither take prisoners, nor be captured. Otherwise, units can be captured in any of three ways.

20.21 RtPh: Any broken Infantry unit during its RtPh that is both ADJACENT to Known, Good Order, armed enemy Infantry/Cavalry and unable to rout away from it or *only* able to rout while being subject to Interdiction or resorting to Low Crawl (regardless of how it actually routs or if the possible Interdictor is Known to it), will surrender to that enemy unit as its prisoner instead, (captor's choice of unit receiving surrender if more than one unit qualifies) after first abandoning all its SW. A stack of broken units in a Location surrenders simultaneously and must be accepted or rejected (20.3) as a stack. If there are not enough Guards for all such surrendering units, the excess units (captor's choice) are freed as Unarmed (20.5). Surrendering units are not subject to FFE or minefield attacks. If the only adjacent armed enemy unit is in-Melee/berserk/vehic-

© 2000 Multi-Man Publishing, LLC

ular, the broken unit must rout away (even if Disrupted) or be eliminated for Failure to Rout—such elimination does not incur No Quarter penalties. If the broken unit is also Disrupted, Encircled, or surrendering due to a Heat of Battle DR (15.5), it will instead rout to that enemy unit as its prisoner even if it had a legal rout path not requiring Interdiction or Low Crawl. Partisans (25.24), Gurkhas (25.43), Commissars (25.22), SS troops facing Russians (25.11), Fanatics (10.8), Japanese and units faced with No Quarter (20.3) never surrender via the RtPh method; they always use Low Crawl or risk Interdiction to avoid surrender. If unable to do any of these, they are eliminated rather than surrender.

20.22 CCPh: Any non-vehicular, non-berserk unit attacking anything but a manned AFV in CC may predesignate its CC attack as an attempt to take prisoners by adding a +1 DRM to its CC DR. If the Final CC DR is < the CC Kill Number for that attack, all defending units are captured; if the Final CC DR is equal to the CC Kill Number for that attack, one defending unit of the defender's choice is captured (one HS if the defending unit is a squad; the other HS remains uncaptured). The +1 DRM for a capture attempt is *instead* a -1 vs Inexperienced Personnel (19.35).

EX: A German 8-3-8 attacks two Russian 4-2-6 squads and a 4-4-7 squad in CC at 8-12 (1-2) and announces he will attempt to capture them. If the Original CC DR is a 3, the Russian 4-4-7 is exchanged for two HS (one of which is captured) and the two 4-2-6 squads are captured. The 4-4-7 squad is not completely captured because the +1 capture attempt DRM applies to it.

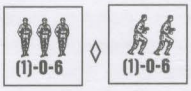
20.221 Whenever any side in a CC or Melee Location is completely eliminated/captured in simultaneous CC, any unit it had captured during that phase is unchanged (i.e., all of that side's Capture attacks resolved in that Location during the phase are treated as ineffectual). If all opposing non-prisoner units in a CC/Melee Location completely eliminate or capture each other in their simultaneous CC, all remaining unarmed prisoners remain in that Location but are exchanged for Green/Conscript units as per 20.551, regardless of the number of units eliminated in that Location or what units eliminated them. Should this leave opposing, newly armed units of both sides alone in the same Location, they all remain in Melee. All SW in such a Location are considered abandoned.

20.23 MOPPING UP: See 12.153.

20.24 Whenever a unit surrenders or is captured, it first abandons all its SW. Those SW must be Recovered (4.44) normally to be possessed by the captor.

20.3 NO QUARTER: The captor may opt to reject a RtPh/Disrupted surrendering unit/stack at the instant of its capture and eliminate it instead, but if he does so all other enemy units will subsequently always use Low Crawl or risk Interdiction to avoid surrendering—even if Disrupted. When one side invokes No Quarter by rejecting a RtPh surrender (or by Massacre), the other side's ability to accept such a surrender is unaffected. A rejected surrendering unit does not count toward the Battlefield Integrity Casualty Tally (16.1).

20.4 MASSACRE: Only SS, Japanese, Partisan, Russian, or berserk Infantry/Cavalry—if not in Melee—may eliminate an unarmed unit in their Location not in the act of escape. They do so in their fire phase as if using a SW by declaring that unit as their target, which automatically eliminates them. Any berserk unit in the same *Location* with prisoners, whether guarding them or not, will at the start of *that* fire phase eliminate those prisoners (thereby losing their berserk status). If not in the same *Location* with prisoners, a berserk unit will ignore them in determining the closest enemy unit to charge. Should a Massacre occur, the ELR of all enemy units in that scenario is increased by one (once only) to a maximum of 6, in addition to the application of all the penalties of 20.3.



20.5 GUARDS & UNARMED UNITS: A Personnel unit is captured as (i.e., exchanged for) a white unarmed counter of the appropriate size (for VP purposes, keep track of crews on a side record), and is placed above the unit that captured it (captor's choice if more than one capturing unit). An unarmed SMC must be noted on a side record, but maintains its normal morale and leadership levels. All unarmed units have a FP factor of "(1)", which can be used only in CC vs Personnel. The captor unit becomes the Guard and may only be relieved of that task during any friendly RPh/APh in which the prisoners—if not involved in Melee with the Guard—are either transferred above another guarding unit in the same manner as a SW (4.431) or abandoned. Such transfer does not penalize either unit's APh/RPh capabilities. Any armed Personnel unit (even a broken SMC or Cavalry) may act as a Guard. Only one unit, the one directly beneath the prisoner unit(s), is the Guard. Should the Guard unit be eliminated, any unit capable of accepting their transfer (disregarding phase) may immediately assume the Guard position. Should no enemy unit be in that Location, the unarmed units are no longer prisoners and may be moved normally by their previous owner except that unarmed units may not enter a location containing a Known enemy unit. If the only Personnel unit available to assume Guard duties is insufficient, it guards all those units it can handle (20.51) and the remainder may be moved by their previous owner as if there were no Guard unit present. An unbroken Guard squad can Deploy into HS automatically at any time, regardless of nationality or leader requirements. A guarded prisoner does not affect rout. A Guard can force any prisoner to attempt entrenchment (B27.11), or clear rubble/Flame/roadblock (B24.7) by sharing any applicable TI/(Hazardous-)Movement status with the prisoners.

20.51 STACKING: A single Guard unit can guard prisoners with a total US# up to five times its own US#, and can automatically exchange two prisoner HS/crew for an Unarmed squad and vice versa. Unarmed units lose all previous armed identity and classification (i.e., a crew becomes an unarmed HS). Overstacking penalties never apply to prisoners, although they apply to their Guards if the captor side (excluding prisoners) is overstacked. Prisoners share the entrenched status of their Guards, but may accompany them as Passengers/Riders only if the vehicle has sufficient Transport Capacity for them all.

20.52 GUARD FP: A Guard whose US# is < the total US# of its prisoners may not attack any unit other than its prisoners except in CC and may not use a SW, Interdict, or Kindle. A Guard's FP is halved for attack (but not defense) purposes when attacking non-prisoners in CC .

20.53 MOVEMENT: All prisoners move at the foot rate (not the Cavalry rate) of their accompanying Guard as one combined stack, and are moved during the captor's MPh/APh at the direction of the captor. Prisoners do not rout while guarded unless their Guard routs—in which case they accompany the Guard. Guards abandon their prisoners only by choice per 20.5. Abandoned prisoners are still subject to the protection of 20.3-.4 (i.e., an abandoned prisoner subsequently eliminated by the side that abandoned it causes the Massacre rule to take immediate effect). Abandoned MMC prisoners are represented by Unarmed counters and the rules applicable thereto including Inexperienced Personnel Restrictions (19.3). Guards may escort their prisoners off a Friendly Board Edge without the Guards being considered eliminated for Victory Conditions. Unless defined otherwise by SSR, a Friendly Board Edge is one from which that side's forces entered the game. If a side's forces set up on board and have received no reinforcements, its Friendly Board Edge is any side it was allowed to set up in front of with no enemy units between its forces and that board edge and through which no enemy units have entered.

MELEE

20.54 ATTACK EFFECTS: Fire into a Location containing prisoners or unarmed units from outside the Location affects both the Guard and the prisoners/unarmed units as if they were combatants in a Melee, except that prisoners are never broken and do not take the LLMC/LLTC usually required for the elimination/breaking of a leader in the same Location. A prisoner/unarmed unit which fails a MC is not broken; it suffers Casualty Reduction instead. A prisoner is not subject to pinning directly (although Unarmed units are),

© 2000 Multi-Man Publishing, LLC



but if a Guard pins then so do its prisoners. A CC attack against a Guard does not affect its prisoners. Prisoners/Unarmed units eliminated by fire from their own side still count double for Victory Conditions. The Casualty Reduction portion of a "K/#" result can affect either the Guard or the prisoners as determined by Random Selection. Similarly, the unit(s) eliminated by a "#KIA" result are chosen by Random Selection. Unarmed units are not an obstacle to movement, and can be recaptured normally by CC or by any Infantry/Cavalry unit entering their Location and engaging in an *immediate* CC attack *during the MPh*. If they fail to eliminate or recapture those unarmed units during the MPh, they are considered in Melee thereafter and may move no farther. Place a Melee counter on the stack to indicate their status. A non-prisoner, unarmed Infantry unit may not enter a Known enemy-occupied Location.

20.55 ESCAPE: Unless a Melee exists in the Location, prisoners must pass a NTC before they cah attack their Guard. This attack can only occur during the CCPh and only if the Guard is broken. Once a Melee exists within the Location, prisoners may, during the CCPh, attack without passing a NTC and even if the Guard is not broken. Prisoners must eliminate their Guard before they can attack any other units in that Location unless they attack their Guard and other units in the same Location as part of the same CC attack. Once Melee exists with a Guard, prisoners may attempt Withdrawal from Melee (11.2) in a subsequent CCPh. Prisoner CC attacks are sequential in that the prisoners may make all of their CC attacks before they can be attacked in turn by the survivors and any other enemy units in that Location. Escape is successful only if there are no enemy units in the same Location (other than prisoners) or by successful Withdrawal from Melee or Infiltration (11.22), in which case the former prisoner unit has freedom of action thereafter until recaptured. Prisoners eliminated in an escape attempt do not incur any penalties upon the captor, and are still counted (although not doubled) for Victory Condition purposes (20.1). An escaped prisoner does not count at all toward Victory Conditions, unless subsequently eliminated or recaptured. Only Infantry may escape and Italians, Japanese, and non-Finnish Axis Minors *[EXC: Hungarians in Hungary; see 25.8]* will not attempt escape unless abandoned.[27]

EX: A German 2-4-7 HS and a broken crew are in a hex with three prisoner squads that are all stacked above the crew, which is the Guard. Only two prisoner squads pass their NTC and are allowed to attack in CC. They can attack their Guard at 1-1 (2-2) with a -2 DRM (vs broken unit), or both the Guard and HS at 1-2 (2-4). The broken Guard cannot attack but the HS can, and elects to attack both of the prisoner squads at 1-1 (2-2). The non-participating prisoner squad is not involved at all and remains under control of the Guard. Neither side is successful in CC, but now all the units are in Melee and the stack is so marked with a Melee counter. During the next CCPh, none of the prisoners need to pass a NTC to participate. One of the squads elects to withdraw from CC while the other two engage the HS and broken Guard at 1-2 (2-4). If the HS tries to stop the withdrawing unarmed squad alone at 2-1 it gets no CC DRM (2 [standing units] -2 [CC Withdrawal DRM] = 0) so the German player elects to attack all three prisoner squads at 1-2 (2-3). The German player knows that unless his HS is eliminated by the Prisoner's CC attack, he will succeed at least in keeping the other two prisoner squads in Melee even though the withdrawing squad will probably escape.

20.551 REARMING: Escaped SMC are always Armed. One attacking Unarmed friendly unit of equal or smaller size is rearmed immediately for each armed enemy unit it eliminated/captured in CC (or by any other means if no other enemy unit is currently in the same Location), but the unarmed unit is replaced with a Green or Conscript squad/HS of its size and nationality (complete with any inherent SW). An unarmed unit in the same Location with an armed enemy unit that surrenders to a friendly armed unit can be immediately rearmed as per the preceding sentence.

20.552 SCROUNGING: Small arms capable of rearming any one Infantry counter may be scrounged from any non-water/marsh hex occupied by the unarmed unit at the end of a MPh in which it has expended all of its MF in movement (not necessarily in the same hex), and is able to roll a 2 on a Scrounging DR (Δ). There is a limit of one Scrounging DR per hex per MPh, regardless of the number of units contained therein. The unarmed unit is replaced with a Green or Conscript squad/HS of its size and nationality as per 20.551. Scrounging wrecks (D10.5) offers a better chance of success.

21. CAPTURED EQUIPMENT

21.1 POSSESSION: Any SW counter *[EXC: radio]* possessed by an enemy unit may be used by its new owner, subject to certain restrictions. Possession of an enemy SW can occur only by Recovery (4.44).

21.11 MALFUNCTION: A captured Gun/SW (or vehicle) has its B#/X# decreased by two due to lack of familiarity with the equipment and difficulty of resupply (see A.11). Ammunition Shortage (19.131) penalties do not apply to captured Gun/SW.

21.12 PERFORMANCE: Captured weapons must reduce any Multiple ROF capability by one. All attacks by captured ordnance must use the red To Hit Numbers and add a +2 DRM to all To Hit attempts (Case H). Captured non-ordnance weapons are penalized only by the decrease in their breakdown number and ROF.

21.13 NON-QUALIFIED USE: An ordnance weapon which requires a crew to man it may be operated by non-qualified friendly MMC or qualified enemy MMC by applying the 21.11-.12 penalties to their use. Non-qualified enemy MMC may use these special weapons by doubling these penalties. Two or more SMC may fire a crew-served weapon as a non-qualified MMC; a lone SMC may fire a crew-served weapon only if heroic (15.23) *[EXC: a lone SMC may fire a mortar ≤ 82mm as if it were a light mortar; C9.2]*.

21.2 VEHICLE: A vehicle can be captured only in the CCPh (11.52). An AFV can be captured only if Abandoned (D5.42). If there are no enemy Personnel in the Location with an Abandoned enemy AFV, it may be captured automatically by any Infantry unit in the same location at the end of a CCPh but Ambush is NA. Otherwise, an Abandoned AFV can be captured only by a CC attack capture attempt *in a CC Location*—even though it is Abandoned. Both sides could attempt to capture it and therefore the Infantry of both sides in that location would qualify as a "Personnel Escort" for the Abandoned AFV's defense until it is controlled by one side or the other. An attack against an Abandoned AFV (whether to capture or eliminate it) is entitled to a -1 DRM because it is a vehicle with no manned MG, as well as the DRM listed in 11.61 (the AFV is assumed to be CE and Immobile as long as it is unmanned).

21.21 TEMPORARY DRIVER: An unarmed vehicle which is captured takes on a new inherent driver at no cost to a MMC captor and can be operated by him even to the extent of leaving a Melee hex as per 11.71. If the vehicle was captured by a SMC, that SMC is removed until the vehicle takes on a new crew (D5.42) or is Abandoned.

21.22 TEMPORARY CREW: An armed vehicle which is captured takes in a new inherent crew by removing the MMC that entered it (or exchanging a capturing squad for a HS). Should the vehicle be manned by a now-removed vehicular crew counter, normal captured weapon (21.11-.12) and red MP (D2.51) penalties apply. Should it be manned by a now-removed HS or Infantry crew counter, its MP allotment is halved, and each attempt to start the vehicle must be preceded by a dr ≤ 4. A dr of 5 results in no movement allowed during this phase (although the attempt still counts as movement insofar as it prohibits/penalizes any other fire or movement attempt by that vehicle); a dr ≥ 6 results in Bog in that hex. A Russian/Japanese captor receives a +1 drm to this dr. Should it be manned by a HS rather than a vehicle crew, both the above movement and doubled captured weapon penalties (21.13) apply. Should it be manned by an Infantry crew counter, only the above movement and normal captured weapon penalties (21.12) apply. A vehicle captured by a SMC is both Immobile and limited to AAMG attacks while he is CE in an AFV. If not CE the vehicle may move, or fire either its BMG or CMG *[EXC: CMG/MA if an AFV with a one man turret; D1.322]*, but may never both move and fire in the same Player Turn. Such fire is not halved due to fire by a SMC, but captured weapon penalties do apply. If two or more SMC capture and man a vehicle, it is considered to be manned by an Infantry HS unless all of the SMC are heroes, in which case the vehicle is considered manned by an Infantry crew.

© 2000 Multi-Man Publishing, LLC

22. FLAMETHROWERS & MOLOTOV COCKTAILS



22.1 FP MODIFICATION: A FT counter is an Infantry SW with a Normal Range of one hex and a FP factor of 24. A FT may attack at Long Range (two hexes) with 12 FP, but is never increased for PBF/TPBF. Long Range Fire for a FT (even vehicular FT) is always limited to one hex beyond its Normal Range. FT FP is affected by LOS Hindrances and is halved for all forms of Area Fire (but not for use in the AFPh) and is reduced by cowering (7.9), but is never increased for any reason. Some vehicular FT (D1.8) have a Normal Range of 2 (signified by the FP factor being underscored).

22.2 DRM: FT attacks vs non-Armored units are resolved on the IFT but receive no DRM due to leadership/heroism or defender's TEM except for non-CA attacks on a pillbox (B30.113). LOS Hindrances and the +1 DRM for CX usage apply to IFT attacks.

22.3 USAGE: Non-elite Personnel must use the captured SW X# penalty (21.11) when firing a FT. That penalty is doubled if firing a captured FT. A unit may only use one FT/DC in a Player Turn. A squad attacking with a FT may use its Inherent FP in a separate attack.

22.31 FG: A FT may not combine FP with any other unit/weapon—including the unit firing it or even another FT *[EXC: OVR; D7. 11]*.

22.32 LINE OF FIRE (LOF): Infantry FT seldom had a range in excess of 40 meters; therefore, use at long range required use of "looping" fire similar to (but not counted as) Indirect Fire (i.e., all FT fire is considered Direct Fire) to extend its range. Consequently, a FT cannot apply both its Normal and Long Range FP, and cannot attack at Long Range if the LOS is obstructed. Otherwise, a FT can attack either an adjacent hex at full FP or a Location two hexes away with Long Range Fire. A vehicular FT with a Normal Range of two hexes can attack either an adjacent hex or one two hexes away with full FP, or one three hexes away with halved (Long Range) FP. No FT may attack more than one Location at a time. A FT may never fire at a target > two levels higher/lower than its own elevation. A FT which fires at an unarmored target two levels higher/lower than its own elevation uses 12 FP at normal range and 6 FP at long range.

22.33 RESTRICTIONS: A FT cannot be used to fire at descending paratroops. A pinned unit cannot use a FT.

22.34 vs AFV: A FT attack against an AFV is resolved on the C7.34 HE & Flame To Kill Table, but only if the AFV is predesignated as the main target. If the AFV is not destroyed, its Vulnerable PRC are still subject to a Specific Collateral attack (D.8). AF do not affect a FT attack, but the FT's Basic TK# is halved at Long Range. The FT's Basic TK# is increased by one if the target AFV is CE, and by two if OT (or by three if both CE and OT).

22.35 vs TERRAIN: Under certain conditions a FT may create a Flame in the target hex (B25.12).

22.4 VULNERABILITY: Any Personnel unit possessing a FT must deduct one (per FT possessed) from the IFT resolution DR of any attack (including ordnance hits) against it. The PRC of a vehicle equipped with a FT are not penalized by the presence of that vehicular FT, or by transporting an otherwise unpossessed FT SW.

22.5 MALFUNCTION: If the Original resolution DR for any FT attack by Infantry is ≥ 10, that FT has run out of fuel and is removed from play after resolving that attack.

22.6 MOLOTOV COCKTAILS (MOL): MOL[28] are available only when specified by SSR or DYO purchase.

22.61 AVAILABILITY: A MOL is not represented by a counter, but is considered an inherent SW of any Personnel unit. A MOL can be used at the option of any *unpinned*, Good Order (or Berserk) Personnel unit as a SW in one of three ways. It cannot be used in CC.

22.611 vs UNARMORED TARGETS: Any Personnel unit may make a MOL Check dr after declaring a PBF/TPBF attack but prior to resolving it, provided the attack is not through an orchard or woods hexside (i.e., a hexside shared by two orchard hexes or by two connected woods hexes) *[EXC: across a road hexside vs unit on the road]*. Using a MOL in a PBF/TPBF attack entitles the firer to add four FP to that attack, even if it occurs as part of a Final Fire or TPBF attack. The MOL 4 FP bonus is always added after any modification of FP; i.e., it is not subject to modification. In order to have a MOL and be in position to use it, a unit must roll a 1-3 on a MOL Check dr (Δ). There is a +1 drm if the unit is a HS/crew and a +2 drm if the unit is a SMC. There is also a cumulative +1 drm to the MOL Check dr (Δ) if it is being used by a CX unit, or vs a non-AFV. A MOL Check dr can be made in neither Subsequent First Fire nor FPF, nor in both Defensive First Fire and later in Final Fire whether MOL were actually used in First Fire or not. A unit taking a MOL Check must declare any FG it will be part of, as well as its target, prior to making the MOL Check dr. The declared FG must *immediately* attack the announced target even if the MOL Check dr is not passed. A FG may make only one MOL Check dr per attack. A MOL Check dr counts as use of a SW, so a HS/crew which fails a MOL Check dr may not attack at all because it has exhausted its only attack opportunity for that Player Turn (7.352-.353); this would not negate any FG including it, however. A squad which makes a MOL Check dr may not fire any other SW and must add its inherent FP to the attack (See Mandatory FG; 7.55). A SMC may attack alone with a MOL without combining into a FG.

22.6111 There are several possible consequences to a MOL attack. If the Original colored dr of the IFT DR is a 6, the unit using the MOL is broken (only one unit if being used by a FG) and both the FP of the unit and the MOL it contributed to the attack are voided, and a Flame is placed in the thrower's Location. The breaking of the unit does not void its FG. If the Original colored dr of the IFT DR is a 1, a Flame is placed in the target Location. In both cases, the Flame is placed only if the Location contains Burnable Terrain. If the Location containing the Flame is a Fortified Building or a non-building Location subject to adverse weather, the EC drm must also be consulted to determine if the Flame is placed. For purposes of Flame determination only, the white dr of the MOL attack DR is modified by -1 if in a Fortified Building (B23.94) or by the appropriate EC DRM (B25.5) for adverse weather; a Flame is placed only if the Final white dr is ≥ 1.

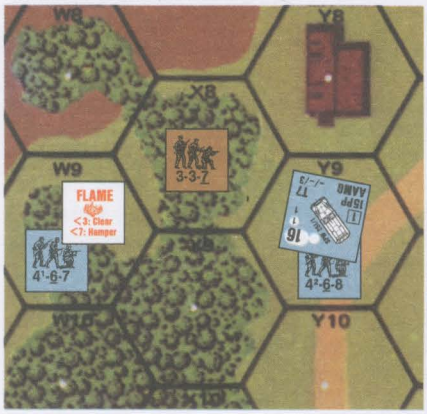
EX: Assume a squad makes a MOL attack vs a unit in a woods hex during Wet EC. The MOL attack DR is a 3 with a 1 on the colored dr. Normally, the 1 colored dr would create a Flame in the woods hex, but because EC are Wet there is a -2 drm to the white dr for Flame Determination purposes so no Flame is placed (2 [white dr] -2 [Wet drm] = 0 which is not ≥ 1).

22.612 vs ARMORED TARGETS: Use of a MOL against armored targets is identical to 22.611-.6111 except as follows; The AFV must be predesignated as the specific target. If the MOL Check dr is successful, the ensuing Small Arms—MOL attack is resolved vs the AFV by means of a To Kill DR on the MOL column of the C7.34 HE & Flame To Kill Table. This same DR also serves as a Specific Collateral Attack (using both the Small Arms FP and the MOL's 4 FP) vs the AFV's Vulnerable PRC, and as a normal IFT attack (using only the Small Arms FP) vs all other non-armored units in the AFV's Location. If the MOL Check dr is not successful, the IFT attack (minus the MOL 4 FP bonus) is carried out against all non-armored units in that Location. The AFV is turned into a burning wreck by a To Kill DR < the AFV Final TK#, and eliminated (with PRC Survival possibilities) by a To Kill DR equal to the Final TK#. There is no armor modification; however, the AFV's Basic TK# is modified by +2 for an OT AFV *or* by +1 for a CE AFV (unlike a FT attack where both OT and CE modifiers can apply, only one of the two can apply to a MOL attack). A MOL's Basic TK# is reduced by two vs a Non-Stopped/moving vehicle (C.8). See also C7.344. When attacking from the same hex, a MOL is assumed to have scored a rear hit; otherwise the Target Facing determines the facing hit. The Rear Armor and Elevation Advantage To Kill Modifications (Cases A and B; C7.21-.22) can apply to a MOL attack vs an AFV.

© 2000 Multi-Man Publishing, LLC

22.613 vs TERRAIN: Any Infantry unit with a MOL (ascertained by making the MOL Check dr of 22.611) may add +2 to its Kindling Attempt DR (B25.11). Unlike the other uses of a MOL, the user is in no jeopardy of breaking for using it to enhance his Kindling Attempt DR.

22.62 LEADERSHIP: Leadership modifiers do not apply to a MOL To Kill DR, or to the MOL Check dr, but do apply to any FG attack containing more than four FP factors from a MOL.



EX: It is moderate weather and a 3-3-7 Partisan squad occupies 3X8 and during its PFPh opts to attack a 4-6-7 squad in W9 with a MOL. The Partisan rolls ≤ 2 on its MOL Check dr, so the MOL FP bonus applies. The attack uses the 8 FP column of the IFT (3 FP × 2 [PBF] = 6 FP + 4 FP bonus = 10). The Original IFT DR is a 7 (1 on the colored dr), modified to an 8 by the +1 TEM of the woods, resulting in a "NMC" against the 4-6-7 and a Flame in W9. Had his 7 IFT DR contained a 6 colored dr, the attack would have been canceled because the Partisan squad would have broken, and a Flame would be placed in its hex. The Partisan squad could not use its MOL against hex X9 had there been a target there because the X8-X9 hexside is a woods hexside.

Now assume that the 4-6-7 squad is berserk and charges the Partisan squad in the next Player Turn by entering X8 during its MPh. The Partisan squad attacks the 4-6-7 in its own hex using Defensive First Fire. Assuming it opts to use a MOL attack and that it passes its MOL Check dr by rolling a 1 or 2, it will have a 12 FP attack without modification (3 FP × 3 [TPBF] = 9 + 4 FP [MOL bonus] = 13 FP; +1 DRM [woods TEM] -1 [FFNAM] = 0 DRM). A Flame will be placed in X8 if the colored dr of the IFT DR is either a 1 or 6 since both firer and target are in the same hex.

Assume the Partisan squad attempts a PFPh MOL attack on the halftrack and 4-6-8 in Y9. It specifies the halftrack as its primary target, passes its MOL Check dr, and makes an Original DR of 7 (2 on the colored dr). There is a +2 modifier to the Basic To Kill Number on Table C7.34 because the halftrack is OT, resulting in a Final To Kill Number of 8—so the AFV is eliminated as a burning wreck. The 4-6-8 squad is attacked on the IFT with 6 FP (PBF) and a +1 DRM (AFV) resulting in a PTC. A 6 on the colored dr would have negated the attack, broken the squad, and placed a Flame in X8. Now assume the Partisan had failed the MOL Check dr. Its attack would be limited to a 6 FP (PBF) attack on the IFT vs both the Vulnerable CE crew of the halftrack and the 4-6-8.

Finally, assume that a Partisan leader is directing the squad in a PFPh Kindling Attempt (B25.11). If the squad passes its MOL Check dr by rolling ≤ 2, it may add +2 to its Kindling Attempt DR. If it fails its MOL Check, it may still make a Kindling Attempt (as could a HS/crew) but with no DRM.

23. DEMOLITION CHARGES



23.1 A DC is a SW which explodes in the target Location with 30 FP factors on the IFT *[EXC: Set DC; 23.7]*. It is not subject to FP modification for PBF/TPBF, use in the AFPh, or for any form of Area Fire other than concealment at the time the DC is Thrown/operably-Placed (or detonated if Set). Concealment-caused Area Fire does not apply when determining the possibility of Rubble Creation (B24.11). A DC attack may not combine FP with any other unit. The defender's (or thrower's) TEM (not LOS Hindrances) applies to the resolution of the attack *[EXC: hexside TEM is NA if DC Placed/Set]* but leadership modifiers do not.

23.2 USAGE: Non-elite Personnel must use the captured SW X# penalty (21.11) to attack with a DC. The penalty is doubled if attacking with a captured DC. A squad attacking with a DC may use its inherent FP, but only in the same phase during which the DC explodes.

23.3 PLACEMENT: A DC is *Placed* on an ADJACENT target Location during the MPh by a carrying Infantry unit expending extra MF (in the hex the DC is Placed from) equal to the number of MF it would require that unit to directly enter that target Location were it to do so during that MPh without Bypass (see Wire; B26.45). The act of Placing the DC is considered movement expended in the *Placement Hex (the Location occupied by the Placing unit—not the Location in which the DC is actually Placed)* and therefore a unit could conceivably remain entrenched the entire time, but cannot Place a DC if it fired during the PFPh or was pinned prior to Placement during that MPh. Furthermore, if an enemy AFV occupies the target Location, most Placing units must pass a PAATC (11.6) in order to Place the DC. Should the Placing unit survive (unbroken and unpinned, even if newly berserk) all enemy Defensive First Fire, Subsequent First Fire, and FPF in the Placement Hex (including any resulting from the expenditure of MF in the Placement of that DC), the weapon is considered operably Placed. Thereafter, the Placing unit may move away or suffer adverse results with no effect to the DC. However, if the Placing unit is broken, pinned, or eliminated before or during Placement, the DC is not operably Placed, remains with the Placing unit (or in the Placing unit's Location if the unit is eliminated), and may not attack—although it is still usable for future Recovery/Placement attempts. A unit may not Place (or Throw; 23.6) a DC to an adjacent Location out of its LOS (7.21) *[EXC: Cave; G11.8331]*.



EX: A squad in 1Y7 moves to Y6 and places its DC in building Location X5 by expending two additional MF in Y6. If it is neither broken, pinned, nor eliminated by Defensive First Fire up to this point, the DC is operably Placed. Assuming the squad did not Assault Move, it may use its last MF to move away. It would have to use Double Time or be accompanied by a leader to have sufficient MF to re-enter its original building hex Y7. The squad cannot place the DC in the first level of building X5 from Y6 even if it had three MF remaining because it could not move directly from Y6 to the first level of X5; the Placement hex must be the ground level of X5 instead.

The DC will attack the 5-2-7 in X5 in the AFPh with 30 FP and +3 Stone Building TEM, even if the 4-6-7 declares Double Time *after* Placing the DC. If the 4-6-7 were CX when it Placed the DC, there would be an additional +1 DRM to the attack. If the 5-2-7 were concealed when the DC was operably placed, the attack would be halved for Area Fire to 15 FP (the 12 FP column). If the ground level of X5 were Fortified, the attack would suffer an additional +1 TEM. Furthermore, the 4-6-7 could instead attempt to breach the X5-Y6 hexside of the Fortified Building Location (B23.9221 and B23.711); normal FP applies to the Breach attempt and Area Fire to the attack vs the 5-2-7, with Fortified Building TEM applying to them both. A NMC result on the Breach attempt (30 FP with +4 TEM) Breaches the building hexside. An Original DR of 9 would be just enough to create a Breach but the 12 FP attack vs the 5-2-7 would have no effect. If the 5-2-7 were *concealed* when the DC was operably Placed, the Breach attempt would be unaffected but the resulting attack vs the 5-2-7 would be halved again to 7.5 FP (6 FP column). If the unconcealed 5-2-7 were merely not Known to the 4-6-7 (e.g., due to +3 Smoke DRM in both Locations [still ADJACENT] or if the Breach attempt were against a Rowhouse black bar hexside instead), the Area Fire attack vs the 5-2-7 would not be halved again.

23.4 DETONATION: If the Placing/Throwing unit is CX, the +1 DRM for a CX attack is applied to the Attack Resolution DR (or Position DR; C7.346). A DC operably Placed during the MPh detonates during the AFPh on any Original DR < 12 (or 10 for a captured DC) and is removed from play. An Original malfunction DR of 12 (or ≥ 10 if captured) for a Placed/Thrown DC attack on the IFT also removes it from play, but without detonation *[EXC: a Thrown DC still detonates if the second DR is 12 (or ≥ 10 if captured)]*.

23.41 vs TERRAIN: Under certain conditions a DC may create a Flame in the target Location (B25.13) and/or cause a Building to rubble (B24.11).

© 2000 Multi-Man Publishing, LLC

23.5 vs AFV: In order for a DC attack (as with any ordnance Direct Fire vs a Location containing an AFV in combination with unarmored targets) to affect an AFV, it must be predesignated as being made against the AFV. A DC can affect an AFV only if it is the primary target of that DC attack. If the attacker chooses to attack the AFV, he does so on the C7.34 HE & Flame To Kill Table using the DC column—but only after a special DC Position DR (C7.346). A DC Placed/Thrown from within the same hex attacks the Rear Target Facing of an AFV. Otherwise, the Target Facing of the AFV is based on the hexside through which the DC was Placed/Thrown, even if the AFV changes its CA prior to the detonation of the DC in the AFPh.

23.6 THROWN DC: A DC may be Thrown (thereby constituting use of a SW; 7.35) into an ADJACENT Location in its LOS—including down to the next lower level of the thrower's hex via a stairwell—or down (e.g., from an upper-level building Location or across a cliff hexside) to the ground-level, in-LOS Location of an adjacent hex, or to the ground level of a non-Interior Building hex from a higher level Location of that hex (even though there may be intervening building levels) by any unpinned, Good Order (or berserk) Personnel capable of SW use during any friendly fire phase (or Defensive First Fire) instead of Placed during the owner's MPh. However, a Thrown DC is less accurate than a Placed DC and may not be Thrown to a full-level higher elevation. A Thrown DC must add an additional +2 DRM (+3 if Thrown from a non-stopped/Motion vehicle or by Cavalry) to the attack resolution *[EXC: vs an AFV the +2/+3 DRM applies to the DC Position DR instead; C7.346]* in the target Location, and is resolved immediately on the 30 FP column. Since the Throwing range of a DC is less than its blast radius (and since a wide variety of results can occur—including the target tossing it back), both the target's and thrower's Locations are immediately attacked by the DC; the Thrower's Location receives a +3 DRM (+4 if Thrown from a non-stopped/Motion vehicle/Cavalry) *[EXC: If a DC is Thrown from an elevation two or more levels higher than the target, the Throwing level is not affected by the DC unless it rubbles the lower level (B24.11)]*. A separate DR is used to resolve the attack of a Thrown DC on each Location. A DC Thrown from an AFV does not affect it, but does attack any Vulnerable PRC of that AFV.

23.61 A DC may not be Thrown to, or Placed in, the same Location occupied by the unit possessing it—unless the unit is Japanese or the target is a vehicle in Bypass in the same Location as the Placing/Throwing unit. In such cases, the Placement cost is always one MF; the DRM for a Thrown DC remains the same.

23.62 AFPh: A DC Thrown in the AFPh incurs an additional +1 DRM to the IFT DR vs both the target and the Throwing Locations unless thrown by an Opportunity Firer. A DC Thrown at an AFV in the AFPh suffers a +1 Position DRM instead.

23.63 FINAL FIRE: A DEFENDING Unit already marked by a First Fire counter may not throw a DC (nor can it do so during Subsequent First Fire or FPF; 8.3-.31).

23.7 SET DEMOLITION: A DC which is neither *Placed* nor *Thrown* is considered a *Set* DC and has special advantages and requirements. A Set DC is one which has been Set *prior to play by SSR*, or which was Set and declared during play by an Infantry unit which spent all of its MF (using Hazardous Movement) to Set the DC in its Location during its MPh and made a dr ≤ its US# (subject to leadership drm by any leader assisting the unit to Set the DC) without being pinned or broken. A Set DC may be detonated using the 36+ IFT column during any friendly fire phase in a subsequent Player Turn by that Good Order unit (or one of its derivative HS, if a squad which has been Reduced or Deployed), provided it is within six hexes and LOS of the DC (but at least two hexes away), and passes a NTC. A Set DC malfunctions on an IFT DR of 12, but there is a +1 DRM to this DR, for malfunction (only) purposes for each enemy Infantry unit currently in the Location.

23.71 A detonated Set DC is resolved on the 36+ FP column of the IFT (or with 18 FP [the 16 FP column] vs concealed units) with a -3 DRM and no TEM including vs the vulnerable PRC of an AFV (with +2 CE DRM). A Final KIA result on a Set DC attack results in the destruction of any bridge or affected building level in that hex (see Rubble, B24.11). When a multi-hex bridge is the target of a Set DC, a number of spans are eliminated equal to the KIA#. A Set DC is the only weapon which can destroy more than one bridge counter in this fashion. Each span to be eliminated must in turn be as close to the original DC as possible with ties resolved by the owner of the DC. A Set DC which detonates without destroying a bridge hex has no effect on units on or beneath the bridge.

23.72 SET DC CLEARANCE: A Set DC is removed due to a malfunction result (as per 23.7) or by Set DC Clearance (B24.75) but cannot be Recovered (4.44). Searching will reveal, and Random SW Destruction will eliminate, a hidden Set DC. See G1.6121 for A-T Set DC.

24. SMOKE



24.1 INFANTRY USAGE: SMOKE placement may be attempted via inherent SMOKE grenades by any Infantry squad having a SMOKE Placement Exponent and still capable of movement during its MPh, at a cost of two MF if the attempt is to place SMOKE in an ADJACENT Location, or one MF if the attempt is to place SMOKE in its own Location. Units attempting to place SMOKE grenades must specify the hex they wish to place them in before rolling the placement dr, but are otherwise free to observe the placement attempts of previous moving units before designating their own placement attempts. No unit may attempt to place SMOKE more than once per MPh, but neither an attempt nor actual placement is considered use of a SW. The Smoke Placement Exponent is the numerical exponent of a squad's FP rating, and is the highest number the unit can roll with one die (Δ) and still place Smoke during that Player Turn. If the SMOKE Placement dr is a 6, the unit must immediately end its MPh in its current Location. A squad may not place SMOKE in Water Obstacles *[EXC: Bridges (not foot bridges)]*, sewer, or marsh hexes (and neither may ordnance). Placement in an ADJACENT hex is permissible if there is no wind. If there is a mild breeze, SMOKE cannot be placed in the three hexes adjacent to the placing unit in an upwind direction. Placement in an ADJACENT hex of higher elevation is allowed only across a single Crest Line or building level stairwell (not across a cliff) and only on a subsequent dr of 1-3. If the subsequent dr is 4-6, the SMOKE must be placed in the placing unit's Location instead. SMOKE grenades can never be placed in an adjacent Location if that Location is two or more levels higher. SMOKE grenades can be placed down to the next lower level of the unit's building hex via a stairwell or to the ground level of a non-Interior building hex. SMOKE grenades can also be placed across a cliff or Double-Crest Line into an adjacent lower hex.

24.11 Any SMOKE screen caused by SMOKE grenades[29] is represented by ½" counters and is immediately removed at the end of the ATTACKER's MPh in which it is placed, *after* all opposing First Fire but *before* any Defensive Final Fire. A ½" SMOKE counter is never Dispersed or subject to Drift, and cannot be placed in Heavy-Winds/Rain/Mud/Deep-Snow *[EXC: 24.6]*.

24.2 EFFECT: All Direct Fire and on-board mortar fire traced into, through, within, or *out of* (see 24.8) a SMOKE Location is affected by a Hindrance DRM of +1, +2, or +3 depending upon the type of SMOKE, in addition to any normal TEM/LOS Hindrance effects of that hex. SMOKE has no effect on minefield, OBA, and DC attacks other than the added MF cost to place the DC (or the added difficulty of placing or correcting OBA; C1.62). The application of SMOKE Hindrance DRM is cumulative for each SMOKE counter encountered along the firing unit's LOS. There is no limit to the number of SMOKE counters which can he placed in a hex but the total Hindrance DRM of SMOKE for any one Location can never be more than +3 *[EXC: outgoing LOS Hindrance; 24.8]*. A LOS traced exactly along a SMOKE hexside (B.6) is affected by that SMOKE. FFMO does not apply to any target shrouded by SMOKE, although FFNAM does.

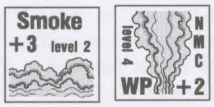
© 2000 Multi-Man Publishing, LLC



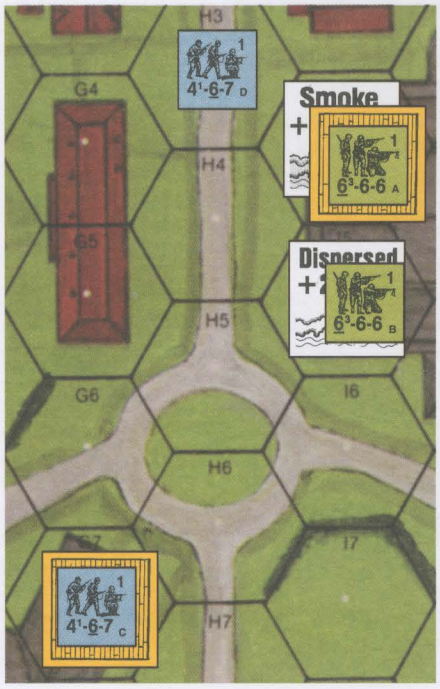
24.3 WHITE PHOSPHORUS (WP): WP is a special form of SMOKE commonly available only to the U.S. player. WP grenades are available to British squads beginning in 1944 (25.46), elite Japanese squads (G1.17), and Chinese 5-3-7 squads (G18.21); use by other nationalities is limited to SSR. The rules for placement of WP grenades are identical to those of conventional smoke except that such use must be announced prior to the Placement Attempt dr. The Smoke Placement Exponent is one less when attempting to place WP. WP is treated the same as conventional smoke in all other ways except as listed below.

24.31 CASUALTIES: The chemical agents in WP caused discomfort and could result in demoralization/casualties. All units (including friendly ones) except a non-CE, CT AFV in a Location with a WP counter must take a NMC when the WP is placed *[EXC: non-moving units in MPh]* in that Location (not when it drifts or they move into it) or when hit by WP on the Area Target Type *[EXC: if the WP does not rise to that elevation (24.4)]*. See C1.71 for OBA. The NMC causes DM status (10.62), and also causes loss of concealment if the affected unit is in LOS of a Good Order enemy ground unit. Leadership, CE DRM and TEM apply as negative DRM to the NMC (treating grenades as if a Direct Fire attack for TEM purposes). However, if a CH (or Air Burst when using Indirect Fire) is obtained with WP, TEM are applied to the NMC as positive DRM instead. A CH with WP grenades occurs if the colored dr of the MC DR is a 6.

24.32 FIRES: WP can cause Fires only if Environmental Conditions are either Dry or Very Dry. The player who placed the WP must make a DR ≥ the Kindling Number of the terrain during his MPh (even if placed during that phase) to start a Flame in the WP hex. Normal EC DRM do not apply, but there is a -1 DRM if Environmental Conditions are not Very Dry. A -2 DRM always applies to buildings. WP may not be used to burn vehicles or wrecks.



24.4 HEIGHT & DURATION: Conventional smoke is treated as a two level Hindrance to LOS and does not Hinder LOS occurring above that elevation. Smoke *in* a terrain/wreck Blaze hex is a four level LOS Hindrance *[EXC: in a mild breeze it is a two level LOS Hindrance]*. WP is a four level LOS Hindrance (even in a mild breeze). SMOKE does not block LOS *[EXC: B.10]*. White Dispersed SMOKE is removed at the start of the owning player's next PFPh. His white SMOKE counters are then flipped over to the white Dispersed side.



EX: Squad A fires at squad C with no DRM, since non-WP Smoke rises up to, but not through, the second level above the base level of the hex. Squad A fires at squad D with a +3 Smoke DRM for firing down *through* (but not out of) the Smoke in I4. Squad B fires at squad C with a +3 Smoke DRM (and an additional +3 TEM) because it is in a Dispersed Smoke Location, but has no LOS to squad D because the total LOS hindrance is +6. Squad D, on the other hand, is not in a Smoke Location and can see squad B, firing at it with +8 DRM (+5 Smoke, +3 Stone Building TEM).

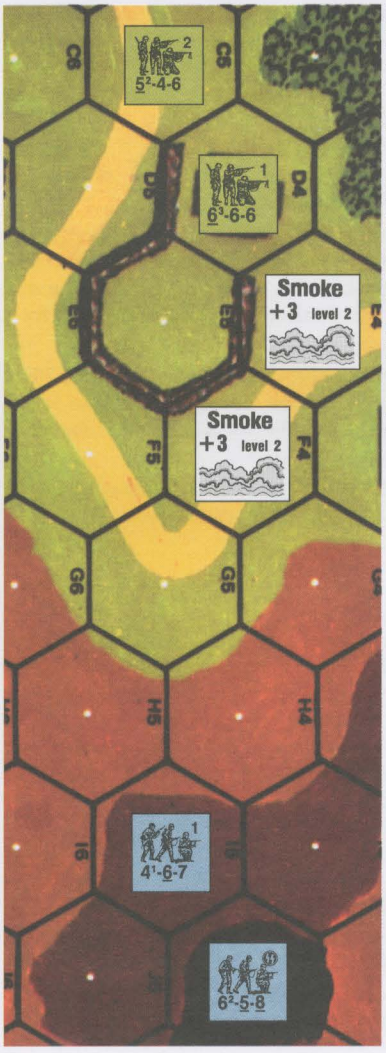
24.5 STRENGTH: A smoke counter has a full-strength Hindrance effect of +3; a WP counter has a full-strength Hindrance effect of +2. These counters can be placed with their full-strength side face-up only if placed by ordnance/OBA as the first resolved attack of their PFPh (i.e., before non-SMOKE attacks are made). All other ordnance/OBA placement uses the reverse (Dispersed SMOKE) side of the counter which has a Hindrance effect of one less. Smoke grenades have a Hindrance effect of +2; WP grenades have a Hindrance effect of +1. A Mild Breeze does *not* lower the Hindrance DRM of a SMOKE source.

24.6 WEATHER: SMOKE has no effect where vision is already Hindered by fog (E3.31). SMOKE is removed immediately for Rain or Heavy Wind and has no effect in Mud (E3.6) or Deep Snow (E3.73) *[EXC: SMOKE placed inside a building from either the same Location or an ADJACENT Location of the same building across a hexside of that building or completely within a factory; E3.8]*.





24.61 DRIFT: Original SMOKE sources (other than SMOKE Grenades which do not last long enough to drift) are differentiated from drifting Dispersed SMOKE by using white counters for original SMOKE *[EXC: a Wreck/Terrain Blaze needs no original Smoke counter]* and gray counters for drifting SMOKE. Whenever there is a Mild Breeze, Dispersed SMOKE drifts from any original SMOKE source *[EXC: to/from non-rooftop Locations of an Interior Building hex]* at the start of the game's first RPh and at the start of every AFPh. Drifting SMOKE consists of a number of Dispersed SMOKE counters equal to the Hindrance DRM of the original SMOKE placed directly downwind from the original



EX: LOS from the 4-6-7 on level 2 hill hex 2I5 to the 6-6-6 at level 0 in D4 is Hindered by the level 2 +3 Smoke Hindrance DRM in F4, as is the LOS from the 4-6-7 to the 5-4-6 in C5 (Smoke is Inherent Terrain; B.6). The 6-5-8 on the level 3 hill hex J4 can see "over" the level 2 Smoke Hindrance in F4 to the 5-4-6 in C5 since the Smoke casts only two "Blind Hexes" (6.4). LOS from the 6-5-8 to the 6-6-6, however, is blocked (B.10) by the +6 Smoke Hindrance DRM (+3 for each Smoke counter in F4 and E4).

© 2000 Multi-Man Publishing, LLC

SMOKE source (even if the original SMOKE source was Dispersed). All drifting Smoke is a Hindrance up to two levels higher, and drifting WP up to four levels higher, than the Location it occupies, but never a Hindrance at levels below the Location of the original SMOKE source. Drifting SMOKE is removed immediately when the original SMOKE source is removed or when the wind changes direction or force. Whenever the original SMOKE source becomes Dispersed SMOKE, the number of gray Dispersed SMOKE counters drifting from it is decreased by removal of the furthest Dispersed SMOKE counter emanating from it (thus keeping the number of drifting SMOKE counters equal to the Hindrance DRM of that original SMOKE source). Smoke drifting from a Wreck/Terrain Blaze is treated identically to that from an original white Smoke counter.

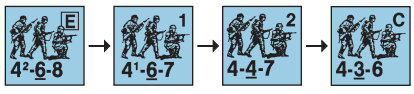
24.62 GUSTS: During Gusts (B25.651), remove Dispersed SMOKE and then flip the remaining SMOKE counters to their Dispersed side, first in the RPh and then again in the AFPh.

24.7 MOVEMENT: It costs one additional MF/MP to enter a SMOKE (including Dispersed SMOKE) Location during the MPh/RtPh (see B.2).

24.8 OUTGOING LOS HINDRANCES: Regardless of the type of SMOKE placed or the method by which it is placed, SMOKE is always more effective in obscuring the view/fire of units inside the SMOKE Location than units outside the SMOKE Location firing into it. Any LOS/non-Residual-fire which is traced out of or within (not through or into) a SMOKE Location must add +1 Hindrance DRM (to its IFT or To Hit DR if a fire attack) in addition to the normal effects of that SMOKE.

25. NATIONALITY DISTINCTIONS[30]

[The A./G. National Capabilities Chart lists all the different MMC types (as well as their national capabilities) for all nationalities in both Chapter A and Chapter G.]





25.1 GERMAN: In general, elite ground troops prior to 1944 should be represented by 4-6-8 squads; 5-4-8 squads should be used in 1944-45 or to represent paratroops. The 4-6-8 must undergo three ELR Replacements to reach Inexperienced status, whereas the 5-4-8 will do so in two Replacements.



25.11 SS: SS squads/HS (6-5-8/3-4-8) are elite Class troops with underlined morale differentiated by the SS insignia on the counter and their increased Morale Level on their broken side.[31] Early-war SS squads/HS (4-6-8/2-4-8) also have the SS insignia and increased broken Morale Level. SS crews and SMC do not receive the increased Morale Level on their broken side, and are therefore represented by normal German crew and SMC counters. SS are entitled to Assault Fire capabilities in any scenario during 1944-45. SS will not surrender to Russians via the RtPh method (20.21), do not become Disrupted while opposing Russians, and may perform Massacre (20.4). Any weapon/AFV identified in a scenario Order of Battle as belonging to a SS formation has its Depletion Numbers increased by one due to being Elite (C8.2).



25.12 COMBAT ENGINEERS: 8-3-8 squads represent special units such as the Combat Engineers of Pioneer Battalions and have an ELR of 5, regardless of the ELR of other German MMC in the scenario. However, 8-3-8s are not automatically considered Assault Engineers; any elite unit can be designated as an Assault Engineer in a DYO scenario (H1.22). SS Combat Engineers are differentiated by the SS insignia on the counter and their increased Morale Level on their broken side; SS rules (25.11) also apply.



25.2 RUSSIAN: Use of elite status troops should be reserved for those formations classified as Guards quality. Any weapon/ AFV identified in a scenario Order of Battle as belonging to a Guards formation has its Depletion Numbers increased by one due to being Elite (C8.2). Russian squads may not Deploy *[EXC: 20.5 & 21.22]*, although they can take HS losses and Recombine into squads again. A 4-2-6 squad Battle Hardens to a 5-2-7; a 2-2-7 HS to a 3-2-8.

25.21 ENTRENCHING: Russian units are entitled to a -1 DRM when entrenching. This DRM does not apply to prisoners of any nationality.

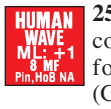


25.22 COMMISSAR: A Commissar is a 9-0 or 10-0 leader with special capabilities. At the *start* of any scenario (including DYO/ Russian Partisans) during or prior to 10/42, the Russian player may replace up to one 8-0 leader with a 9-0 Political Commissar and/or one 8-1 leader with a 10-0 Political Commissar provided the scenario is not begun with more Commissars than other leaders in the OB. No SSR is required to make this substitution.

25.221 A Commissar is superior to all leaders regardless of Morale Level, and therefore is the first unit in a Location to take an IFT-dictated MC (10.2), is exempt from LLMC/LLTC, and can even cause LLMC/LLTC to leaders of higher morale. An unpinned, unbroken Commissar increases the Morale Level of all other friendly Infantry/Cavalry units in the same Location by one *[EXC: Commissars and units with Morale Level of 10]*, while prohibiting the application of another leader's DRM to morale activities. A broken Commissar must always attempt Self-Rally, even if with another leader. A Commissar never receives the leader DRM of another leader when performing any action (including MC/TC), and is not subject to Unit Substitution (19.).

25.222 RALLY: A Commissar *must* attempt to rally broken units in its Location. A unit is immune to DM status while being rallied by a Commissar—in addition to the Morale Level increase (25.221). Any MMC which fails to rally under the direction of a Commissar is Replaced by the next lower quality unit of its size; if already the lowest quality, a squad is Casualty Reduced. A broken crew, SMC, or HS that cannot be Replaced is eliminated.

25.223 BERSERK: Should a Commissar go berserk, all friendly Infantry in the same Location automatically become berserk also *[EXC: units immune to Heat of Battle]*.



25.23 HUMAN WAVE (HW): Human Wave may only be conducted by Russians and Chinese (G18.5), but it also forms the basis for Cavalry Wave (13.62) and Banzai (G1.5). The ATTACKER may declare a HW attack during his MPh by selecting ≥ 1 participating MMC (and an average of at least two MMC per hex) from each hex of a chain of three or more adjacent contiguous hexes, as well as ≥ 1 leader from any of these hexes. All the participating units must be in a contiguous chain of ADJACENT Locations, must be in Good Order, free to move, and cannot have started *their* MPh yet. No unit in the HW chain can be a Guard, PRC *[EXC: Cavalry Wave (13.62)]*, or ADJACENT-to/in-the-same-hex-as an enemy unit *[EXC: G1.5]*. At least one unit in the HW chain must have a LOS to an enemy unit (the "target") within eight hexes which the chain will move towards during that MPh. The units participating in the HW are termed HW Units; they lose any concealment and are exempt from Heat of Battle, PAATC, and any pin results *[EXC: Minimum Move (4.134), Wounded SMC (17.2), Collapsed huts (G5.5)]* while they are part of the HW; for the remainder of that

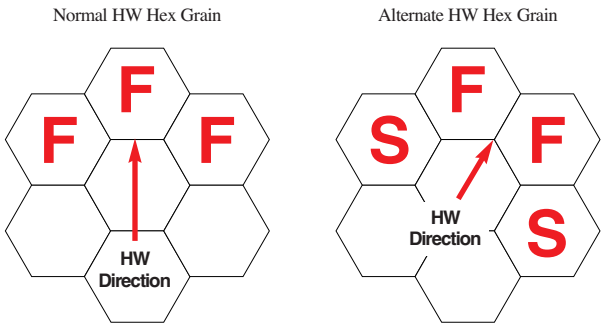
©2006 Multi-Man Publishing, Inc.

Player Turn they have their Morale Level increased by one *[EXC: if broken]* and are Lax (11.18).

HW DIRECTION

25.231 DIRECTION: The ATTACKER must choose one Hex Grain or alternate Hex Grain that includes the target enemy unit and that is as close as possible to a HW Unit that has LOS to, and is within eight hexes of, the target enemy unit. This HW (alternate) Hex Grain should be marked with HW Direction counters. The direction along the HW (alternate) Hex Grain towards, and beyond, the target enemy unit is the HW Direction *[EXC: a unit conducting a Banzai Charge (G1.5) against an enemy unit in the same hex cannot be used to establish the HW Direction; if no other unit can establish the HW Direction, then only units in the hex may participate in the Banzai Charge]*.

25.2311 FORWARD AND SIDE LOCATIONS: During the HW, two or three of the hexes adjacent to a HW Unit are considered forward hexes. Given a normal HW Hex Grain, the hex adjacent to a HW unit in the HW Direction is a forward hex, as are the two hexes adjacent to both this hex and the HW unit. Given an alternate HW Hex Grain, the two adjacent hexes in the HW Direction are forward hexes, and the two hexes adjacent to the HW unit and one of the forward hexes are side hexes. The Locations in forward hexes that are ADJACENT to the HW Unit are Forward Locations and the Locations in side hexes that are ADJACENT to the HW Unit are Side Locations.



● **25.232 MOVEMENT:** All HW Units have 8 MF (which can never be increased) and can enter enemy-occupied Locations, but cannot Assault Move, Dash, Search, carry more than their IPC, or use Column movement. The HW units must move using Impulse Movement (D14.3 *[EXC: a wounded SMC has 3 MF without restricting the other HW units' movement; if a wounded SMC has enough MF for its next action, but not as many MF as are being expended by the rest of the HW that Impulse, the remaining units may move as normal while the SMC instead expends its remaining MF for this action as if it were making a Minimum Move (4.134)—i.e., it becomes pinned and CX—even if it already entered a new Location this MPh]*.[32] For each Impulse, each HW Unit *must* (if possible) do exactly *one* of the following and cannot expend MF for any other reason: move to a Forward Location; move to a Side Location that contains an enemy unit; move up or down in a building while moving closer to the Ground Level and/or an enemy unit in that hex; move beneath Panji/Wire (with individual Exit dr for each HW unit); move above an Entrenchment/pillbox counter; move below an Entrenchment counter containing an enemy unit; move below an Entrenchment counter or into Crest status if lacking sufficient MF to enter a new Location. In addition, it may perform non-MF-dependant actions as per D14.31.

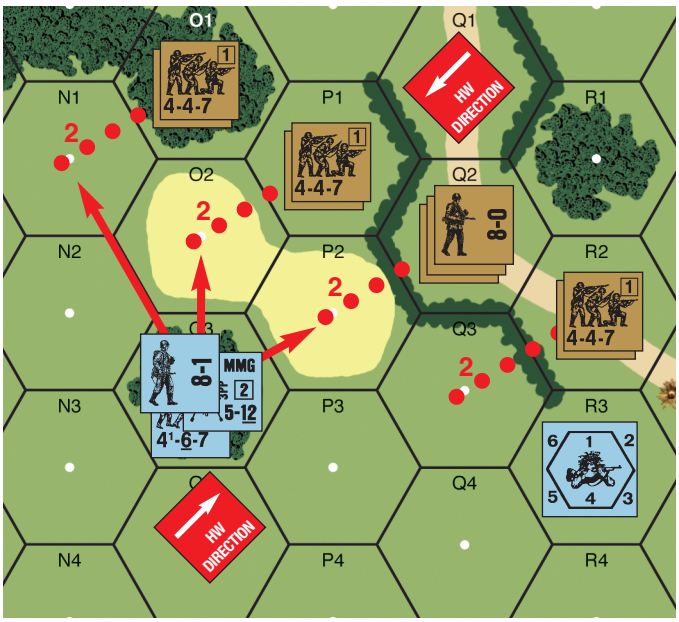
Hex Grain Range
Inc Rng to HW Hexgrain NA

25.2321 RANGE: If a HW Unit increases its Range to the HW (alternate) Hex Grain (25.231)—i.e., to the closest hex of that Hex Grain—it must be marked with a Range counter. As long as it is so marked, it cannot enter a hex that would increase the range to the (alternate) Hex Grain. The Range counter is removed as soon as the HW Unit decreases the range in a later Impulse (or at the end of the MPh).

25.2322 A HW Unit may enter neither a Location that it left in a prior Impulse that MPh nor a Location ADJACENT to such a Location. If the HW Unit is unable to move to a new Location, it must spend its remaining Impulses in its current Location.

25.233 ENEMY UNITS: If a Forward Location enterable by a HW Unit is devoid of armed, friendly units and contains an armed, Known, non-Disrupted enemy unit, the HW Unit must move to that Location, or to another enterable Location that contains either a Known enemy unit or a pillbox occupied by such a unit. Once any HW Unit enters such a Location during an Impulse, the Location is no longer devoid of friendly units, freeing other HW Units from the requirement to enter that Location during that Impulse. Upon entry of an enemy-occupied Location, mark all units with a CC counter. If a Location entered contains one enemy SMC only, Infantry OVR (4.15) is automatic without a NTC and with normal (non-doubled) MF cost, and the SMC cannot move to another Location. If the Location contains Disrupted/Unarmed enemy units, 19.12 and/or 20.54 apply at the end of the Impulse.

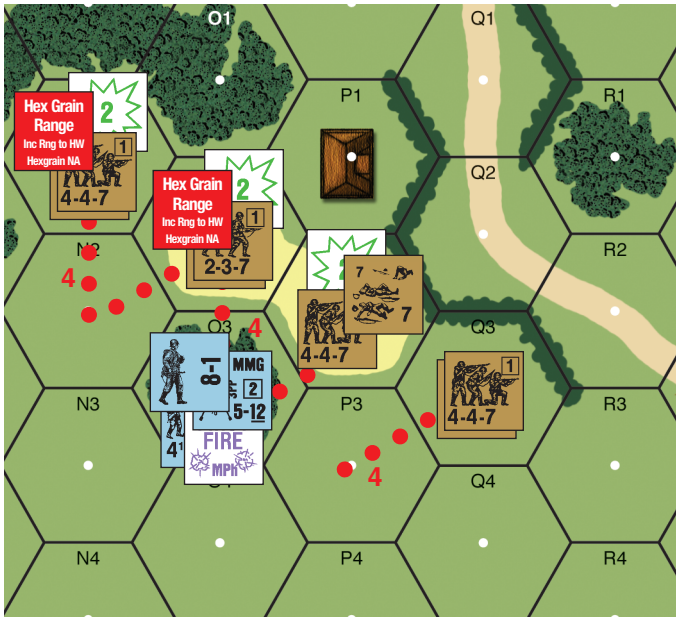
● **25.234 ENDING THE HUMAN WAVE:** A unit remains a HW Unit (even if no longer adjacent to another HW Unit) until it is: eliminated; broken; out of MF at the end of an Impulse; at the start of an Impulse in a Location (or in a hex with a pillbox) containing an armed, Known enemy unit *[EXC: if it uses the Impulse to move beneath an enemy-occupied Entrenchment counter]*; or is a Guard due to capturing a SMC/Unarmed/Disrupted unit (25.234). When there are no HW Units left or no HW Unit is able to enter a new Location, the HW ends. A unit that has been part of a HW may use Advancing Fire and/or Advance if otherwise able to *[EXC: if in a Location containing a Known enemy unit it is marked with a CC counter (or a Melee counter, as appropriate; 4.152, 20.54) and cannot advance out of that Location as long as that CC/Melee continues]*.



EX: The Russian has just declared a Human Wave attack using the enemy units in O3 for determining the direction. He must now choose a (alternate) Hex Grain that includes O3 and is as close to a HW Unit as possible. Possible (alternate) Hex Grains are: O1-O2-O3-O4...; P1-O2-O3-N3...; P1-P2-O3-O4...; Q2-P2-O3-N3...; and R2-Q3-P2-O3... which all have a range of 0 to a HW Unit. He chooses P1-P2-O3-O4.... by marking it with HW Direction counters. During the Human Wave, a unit's forward hexes will be the hexes that share hexsides 4 and 5 (see Sniper counter) with the unit's current hex, and its side hexes will be the hexes that share hexsides 3 and 6 with the current hex (i.e., a HW Unit in P2 will have O3 and P3 as forward hexes and O2 and Q3 as side hexes). If instead the non-alternate Hex Grain Q2-P2-O3-N3... had been chosen, a unit's forward hexes would be the hexes that share hexsides 4, 5 and 6, and there would be no side hexes (i.e., a HW Unit in P2 would have O2, O3, P3 as forward hexes).

©2006 Multi-Man Publishing, Inc.

As his first Impulse the Russian moves all elements of the chain forward one hex as shown, at a total cost of two MF (because the units in Q2 and R2 had to cross a hedge). The units that entered N1 and O2 are marked with a Range counter (25.2321) since they increased the range to the HW alternate Hex Grain and must decrease the range before they can increase it again. The German 4-6-7 attacks N1 with its inherent 4 FP and -2 FFMO/FFNAM DRM and rolls an Original 9, which results in a PTC which is ineffective vs a Human Wave. The 4-6-7 is marked with a First Fire counter. The squad now fires the MMG directed by the 8-1 leader (7.53) at O2 and P2 with Spraying PBF. The attack is 5 FP (Area & PBF) with a -3 DRM (grain is not in season). The Original DR is an 8 (with a 2 colored dr), resulting in a 1MC vs both hexes. The Russian player rolls a 9 for the leader which breaks and now no longer has its Morale Level increased. All four squads roll ≤ 7 and are unaffected. They need not take a LLTC because they are part of a Human Wave (which is immune to Pin results). However, the MMG retained its Multiple ROF and—because the Russian Impulse used two MF—it may First Fire again and chooses to repeat the same attack. This time it rolls an Original 5 (2 on the colored dr), resulting in a K/2. The Random Selection DR in O2 is a tie, so both squads are Reduced to HS (7.302) before taking a 2MC, which they each pass by rolling ≤ 6. The Random Selection DR in P2 selects the broken leader, who wounds, rolls a 5 on his Wound Severity dr (17.11), and thus is eliminated. If, however, the leader had survived, it would not then have to take the 2MC. The two squads roll a 6 and 7 for their 2MC which breaks one, which then passes its LLMC with a 7. The MG has retained its Multiple ROF and the German wants to fire again but cannot, because two shots are all that are allowed vs a moving unit that expended only two MF in its Location. The MG cannot avoid this by picking another target, because all of the units in its LOS moved simultaneously as part of the same Impulse (moreover, the other targets are all outside of the MG's now-fixed CA; 9.21).



In the second Impulse at least one of the HW Units in O2 or P2 must now enter O3 (25.233). The Russian moves all unbroken units forward as shown. Since the 4-4-7 in P2 enters O3, the two 2-3-7 in O2 are free from the restriction of 25.233 and may instead move to N2, which one of them does, while the other enters O3. Of the units that were marked with Range counters in the first Impulse, the two 4-4-7 in N1 and the 2-3-7 that enter O3 can remove their Range counters since they now decrease the range, while the 2-3-7 that enters N2 does not and must keep its Range counter. The German must use Subsequent First Fire vs the 4-4-7 and 2-3-7 as they enter his hex (8.312) and because they both enter O3 as part of the same Impulse, he fires at them simultaneously.

It is now the Russian third Impulse; the Russian units currently in O3 now end their MPh and may move no farther (25.234), but the Russians in N2 and P3 must continue the Human Wave. The units in P3 can enter O3 (since it is a Side Location containing enemy units) or the Forward Locations O4 or P4. The two 4-4-7 in N2 can enter the Side Location O3 or the Forward Locations M3 or N3, but will be marked with a Range counter if entering M3. The 2-3-7 in N2 can enter N3, but can enter neither M3 (since it is already marked with a range counter) nor O3 (which is ADJACENT to the O2 Location that the 2-3-7 left earlier in the MPh per 25.2322). From N3 it will be able to enter M4 or N4. At the end of the Impulse, the German squad must use FPF vs any new units entering O3 in that Impulse with 13½ FP (9 [FP] × 3 [TPBF] = 27 divided by 2 [Area Fire] = 13½), but only the Russian units entering O3 during that Impulse will be affected.



25.24 PARTISANS:[33] Partisans can belong to any nationality but are listed here and represented by Russian colors because they were most prevalent on the Eastern Front. Partisans are represented by 3-3-7 squads with a broken Morale Level of 6, and are considered Stealthy while in Good Order. Partisans are not affected by the special rules for their nationality; a Russian Partisan unit is treated as a Partisan unit, not a Russian unit *[EXC: Russian Partisans may use Commissars; 25.22]*. Partisan leaders have no leadership effect whatsoever over non-partisan units (and vice versa). Unless specifically indicated otherwise, Partisans have an ELR of 5 regardless of the ELR of non-Partisan allied forces in the scenario. Partisans never surrender by the RtPh method, are considered neither elite (including SMC) nor Inexperienced for any purpose, and never become Disrupted.

25.241 MOVEMENT: Partisans may be subject to SSR which grant them specific movement advantages in wooded or urban areas. Partisans that are moving as a combined stack together with non-Partisan units may endow the regular units with whatever SSR-endowed movement advantages they have.

25.242 Ordnance used by Partisans always uses the red To Hit Numbers *[EXC: ATR/MG]*.



25.3 AMERICAN: U.S. Infantry squads have a printed broken Morale Level one higher than that used on their Good Order side except for 1st Line Infantry, which have a broken Morale Level two higher than their Good Order side. Second Line Infantry should generally be used to represent American units which were not prepared for combat. See G17.1 for U.S. Marine Corps and G17.2 for pre-6/42 U.S. Army and Philippine Army troops.



25.31 PARATROOPS: 7-4-7 squads have an ELR of 5, regardless of the ELR of other U.S. MMC in the scenario.

25.32 ORDNANCE: All U.S.-built AFV/ordnance *[EXC: ATR/MG]*, including such equipment used by other nationalities (identified by the (a) in the name), uses red To Hit Numbers prior to 1944 and black To Hit Numbers thereafter.[34]

25.33 AMMUNITION: No fighting men were better supplied than the Americans, who excelled in logistics. American OBA batteries are assumed to have Plentiful Ammunition unless specified otherwise.

25.34 SMOKE: An American squad may place either WP or conventional Smoke grenades at its option, but placing WP is more difficult (see 24.3).



25.35 U.S.-BUILT, BRITISH-COLOR SW: U.S. MMG, HMG, .50-cal HMG, M2 60mm mortars and BAZ 44 are provided in the British color in *FOR KING AND COUNTRY*. They are identified by having "(a)" in their piece name, and are used by Free French as per 25.55. The BAZ 44(a) is also used to represent a BAZ 44 Scrounged (D10.5) from a U.S.-built vehicle/wreck [which includes one with "(a)" in its piece name] by Free French (only); other nationalities would Scrounge a U.S.-color BAZ 44. The appropriate MG(a) is also used to represent one Removed (D6.631) from a U.S.-built vehicle by a British (as defined in 25.4) unit. A MG Scrounged by any nationality from a U.S.-built or British-built vehicle/wreck takes counter form as a standard British LMG, with no Captured penalties when being used by a U.S. or British (25.4) unit. Captured penalties do not apply to the use of U.S.-color MG by British (25.4) units, nor to U.S./British-(25.4) use of British-color "(a)"-type SW *[EXC: non-Free French British treat all, while Free French treat no, type(s) of U.S. MTR/BAZ as captured]*.

©2006 Multi-Man Publishing, Inc.



25.4 BRITISH: British troops also encompass all "Commonwealth", Free French, and liberated forces. Guardsmen, Gurkha, ANZAC (Australian and New Zealand), and Free French/Polish forces should generally be regarded as elite troops, as should Canadian units—all of which were composed of volunteers rather than draftees. Colonial troops such as the King's African Rifles and pre-44 Indian troops in India and Burma should be considered 2nd Line troops represented by 4-4-7 squads. See 25.53 for Free French.



25.41 GREEN: British 4-3-6 squads (and their HS) are Green troops. They are considered Conscripts only in hypothetical scenarios depicting the British Home Guard or poor quality colonial troops.



25.42 AIRBORNE: The 6-4-8 squads represent Airborne troops and have an ELR of 5, regardless of the ELR of other British MMC in the scenario.

25.43 GURKHA: Gurkha troops were feared in CC due to their handiwork with their famed Kukri knives (which were a combination knife-hatchet-sword). Whenever ≥ one unbroken Gurkha Infantry unit is the ATTACKER in CC/Melee or Ambushes the enemy in CC, that CC/Melee may become Hand-To-Hand (J2.31) at the option of the Gurkha player unless every such Gurkha unit participating in it was Ambushed in that phase and/or is withdrawing/pinned. However, Hand-To-Hand CC can never be used by/vs any vehicle/PRC/pillbox-occupant(s). Each Gurkha Hand-To-Hand CC attack receives an extra -1 DRM unless every Gurkha Infantry unit participating in that attack is pinned/Unarmed. Hand-To-Hand Melee counters are provided in *Code of Bushido*. Gurkhas are Commandos (H1.24) unless Green. Gurkhas will not surrender via the RtPh method (20.21) or become Disrupted.

25.44 ANZAC: Good Order ANZAC (Australian and New Zealand) forces are Stealthy unless Green.

25.45 COWERING: British troops were renowned for their marksmanship and calmness under fire (or "Moral Fibre" as they termed it). Therefore, their elite and 1st Line units are immune to Cowering effects *[EXC: Free French; 25.53]*.

25.46 WP: A British squad may place only normal (i.e., not WP) smoke grenades prior to 1944. Beginning in 1944, they may also place WP (24.3). This restriction does not apply to ordnance WP ammo.



25.5 FRENCH: French units and the rules (25.51-.52) pertaining to them apply only until the French capitulation, and to Vichy French forces thereafter.[35] Free French forces use British units and rules (25.53).



25.51 GREEN: French 4-3-7 squads are considered Green reservists (not Conscripts), and should ordinarily be brought into play by ELR Unit Substitution.

25.52 ORDNANCE: French vehicles use red To Hit Numbers *[EXC: MG MA]*; other French ordnance uses black To Hit Numbers.

25.53 FREE FRENCH: Use British counters and rules for Free French Personnel *[EXC: Free French squads have Assault Fire (7.36) capability in/after 12/43; the 25.45 immunity to cowering never applies to Free French]*. Free French OBA (including Accuracy and Draw Pile) is always treated as if British *[EXC: DYO purchase; 25.57]*. See also 25.35 and 25.54-.57 and the French section of Chapter H.

25.54 PRE-12/43 EQUIPMENT: For scenarios set prior to 12/43, Free French use (without Captured penalties) certain British [/British-color "(f)"; 25.56] SW, vehicles and Guns, and the rules covering them.

25.55 12/43-5/45 EQUIPMENT: For scenarios set in/after 12/43, Free French use (without Captured penalties) British color "(a)"/"(f)" SW (see 25.35 and 25.56), certain U.S. [/U.S.-color "(f)"; 25.35] vehicles and Guns, and the rules covering them *[EXC: Free French Inherent crews are considered British when determining their morale as per D5.1]*.

25.56 FRENCH-BUILT EQUIPMENT: Certain French-built SW/vehicles/Guns are provided in *CROIX DE GUERRE* for Free French use. They are in the U.S./British color, and are identified by having "(f)" in their piece name. An "(f)"-type, or French-color, SW/vehicle/Gun suffers Captured penalties when being used by *other than* (Free/Vichy) French.

25.57 DYO: Free French use their own SW Allotment, OBA Availability, and Rarity Factor Charts for DYO scenarios. Use H1.463 for Free French OP tanks. Free *and* Vichy French cannot be purchased by the same side.

25.6 ITALIAN: Italian ordnance uses the red To Hit Numbers *[EXC: ATR/ MG]*.[36]



25.61 ELITE: 4-4-7 squads, their 2-4-7 HS, and 2-2-7 crews are the only elite Italian MMC. Only elite Italian squads may Deploy *[EXC: 20.5, 21.22]*. A 4-4-7 which suffers ELR failure is Replaced by a 3-4-6.



25.62 1ST LINE: The 3-4-7 squads represent the Bersaglieri which were light infantry transported by trucks, motorcycles, or bicycles. A 3-4-7 which suffers ELR failure must be Replaced by a Conscript squad, and not a lower quality 1st Line squad, while a Conscript squad that Battle Hardens becomes a 3-4-6.

25.63 SURRENDER: The +1 CC DRM for a capture attempt does not apply vs non-elite Italian defenders. Once captured, no Italian unit will attempt escape (20.55).

25.64 LAX: Non-elite Italian units are always Lax (11.18).

25.65 PAATC: Non-elite Italian troops (including Inexperienced units) must pass a 1PAATC rather than a normal PAATC whenever required to take a PAATC.



25.7 FINNISH: Finnish Personnel may attempt Self-Rally during any RPh, are immune to Cowering results, and are Stealthy while in Good Order unless Green. Finns may also Deploy without leadership by passing a 1TC instead of a NTC (1.31). Finns do not require leadership presence to Recombine (1.32) *[EXC to all: 25.72]*.[37] When using the blue Finnish counters from *Beyond Valor* 1st edition, use German crews, heroes, and SW where needed.



25.71 LEADERS: Finnish units usually take less severe LLMC/LLTC (the most severe being a 1MC/1TC) because Finnish leaders have a unique rank structure descending in order as follows: 10-1, 10-0, 9-1, 9-0, 8-0. Finns are not eligible for Field Promotion. If leadership is present, Finns may Deploy normally (1.31).

25.72 The Finns refused to follow German dictates to operate outside their recaptured historic borders. Therefore, in any scenario taking place beyond Finland's 1939 borders (as noted by SSR), Finns are represented by 5-4-8 squads and 25.7 does not apply.



25.73 SISSI: The 8-3-8 squads and 3-3-8 HS represent Sissi elite units which were ski-trained and specially equipped.

©2006 Multi-Man Publishing, Inc.

25.74 BATTLE HARDENING: Finnish leaders Battle Harden and are Replaced according to the unique Finnish rank structure (25.71). Finnish 1st line units become Fanatic if receiving a Battle Hardening result.



25.8 AXIS MINORS:[38] The Romanian, Hungarian, Slovakian, Croatian, and Bulgarian troops which comprised Germany's minor allies were neither well equipped, nor particularly ardent practitioners of Hitler's war. As such, the broken Morale Level of all such non-elite squads is one less than their unbroken Morale Level. Any Axis Minor troops fighting within their own borders should generally be represented by Elite and 1st Line MMC with an SSR making their broken side Morale one higher than printed *[EXC: when fighting against partisans or Germans]*. Due to the historical dislike Hungarians and Romanians had for each other, in all scenarios where Hungarians are fighting Romanians, the broken Morale Level of their MMC is one higher than printed and No Quarter (20.3)[39] is in effect for both sides.

25.81 PAATC: Non-elite Axis Minor troops[40] (including Conscript units) *[EXC: 1st Line Romanian MMC beginning 7/43]* must always pass a 1PAATC rather than a normal PAATC when called upon to take a PAATC.

25.82 ESCAPE: Axis Minors *[EXC: if within own national borders vs Russians]* will not attempt escape. Axis Minors surrender on a Final Heat of Battle DR >10 *[EXC: in any scenario where the Hungarians and Romanians are fighting each other, each nationality goes Berserk on a Final Heat of Battle DR of 10 or 11 (rather than Surrender)]*.

25.83 ORDNANCE: Axis Minors use red TH# *[EXC: Romanian, Hungarian, and Slovakian units using German-manufactured or Czech-manufactured equipment, as designated by "(g)" or "(t)" in the piece name, use black TH#]*. HEAT is available beginning 1/43 per the applicable Chapter H note.



25.84 SMG SQUADS: The 5-3-7 squads and their 2-2-7 HS are 1st Line MMC that are available as Romanian SMG squads (infantry in armored units, Air Force security units, etc.) beginning 1/43 and in some Bulgarian armored units beginning 10/44. A 5-3-7/2-2-7 is replaced by a Conscript when it suffers ELR and becomes Fanatic if it Battle Hardens, while a Conscript squad that Battle Hardens is replaced by a 3-4-7.

25.85 PANZERFAUST (PF): Non-crew Romanian and Hungarian MMC use PF as if they were Germans (C13.3) except as otherwise noted. Availability begins 3/44 for Romanians and 6/44 for Hungarians. A unit making a Final PF check dr ≤ 2 has a PF and an opportunity to fire it. PF range is limited to one hex prior to June 1944 and two hexes from June 1944 on. All non-date-dependent PF check drm apply normally. Additionally, Conscripts receive a +1 PF Check drm, Elite Romanians receive a –1 PF check drm vs AFV, and all Romanians receive a +1 PF check drm in scenarios set in 1945. The total number of PF shots taken in a scenario may not exceed the number of squad-equivalents for Hungarians in 1944-45 and for Romanians in 1945, and $1^1/_2$ times the number of squad-equivalents for Romanians in 1944.



25.86 HUNGARIAN TROOPS: Hungarian troops are represented by unique two-tone counters[41]. All Axis Minor rules apply normally.

25.87 ROMANIAN ATMM: Beginning 7/43 an unpinned, Good Order Elite/1st-Line Romanian non-crew MMC[42] may roll for an ATMM (C13.7) before making its CC attack *[EXC: ATMM add a –2 DRM to the CC attack of that unit]*. The only drm that apply to an ATMM Check are +1 for CX, +1 vs an unarmored vehicle, +1 if a HS, +1 if 1st Line, and +1 before 1944.



25.9 ALLIED MINORS: The broken Morale Level of all minor country squads is one less than that unit's unbroken Morale Level *[EXC: Greek or Yugoslavian forces opposing an all-Italian OB have the broken Morale Level of their MMC increased by one]*. Polish and Belgian elite and 1st Line Infantry squads should generally be assigned Assault Fire via a SSR.[43]

25.91 PAATC: Non-elite Allied Minor troops (including Inexperienced units) must pass a 1PAATC rather than a normal PAATC when called upon to take a PAATC.

25.92 After the conquest of their own country, Allied Minor forces are often represented by the British or Russian forces by whom they were organized and supplied, and are therefore governed by those British or Russian nationality rules.

26. VICTORY CONDITIONS

26.1 CONTROL VICTORY CONDITIONS: Control of Locations, hexes, or buildings often determines scenario Victory Conditions. Control of Locations/hexes/buildings is accomplished by gaining Control of them at scenario start and/or during the game.

Once Control of a Location/hex/building has been gained, that side retains Control of it (even if the circumstances that allowed the side to gain Control no longer apply *[EXC: 26.12]*) until the opponent actively *gains* Control of it.

26.11 GAINING CONTROL: At scenario start a side gains Control of all Locations/hexes/buildings within its set-up area *[EXC: if within both sides' set-up areas]*, as well as all Locations/hexes/buildings on a board if that side is the only side which may set up on that board at scenario start.

During play, a side gains Control of a Location/hex/building by occupying it with an armed Good Order Infantry MMC without the presence of an armed enemy ground unit *[EXC: subterranean units]* in that same Location/hex/building (see also 26.13-.14 for hex/building Control). Control can be gained during the act of movement; a unit need not end a phase (or even survive Defensive First Fire) in the Location/hex/building to gain Control of it. However, Control cannot be gained via Bypass.

A vehicle (or its PRC) can never gain Control of a building, but may gain Control of its Location/hex as per 26.12. A non-bypassing armed vehicle (or armed PRC) prevents the opponent from gaining Control of the Location/hex/building it occupies. An armed vehicle in bypass of a building prevents the opponent from gaining Control of the Location/ hex, but not from gaining Control of the building.

After successfully securing a building by Mopping Up (12.153), a player gains Control of the building and all its hexes and Locations *[EXC: any Location/hex containing an armed enemy vehicle (including armed PRC) in bypass]*. See G11.94 for Control of caves.

26.12 VEHICULAR CONTROL: An armed, non-bypassing vehicle temporarily gains Control of the Location it presently occupies if that Location is devoid of armed enemy units. Control immediately reverts to its prior status (either un-Controlled or enemy-Controlled) if the vehicle leaves the Location. A vehicle which Controls the only Location in a hex also Controls that hex.

EX: The unoccupied bridge hex and bridge Location at 13CC5 are both Controlled by the Russians. A PzIIIG enters the bridge, and temporarily gains Control of the bridge Location—but not the hex. If a 4-5-8 advances in with the AFV, the German player still Controls the bridge Location. As soon as the PzIIIG leaves the bridge the Russian player immediately reclaims Control of the bridge Location, regardless of the presence of any Russian units.

©2006 Multi-Man Publishing, Inc.

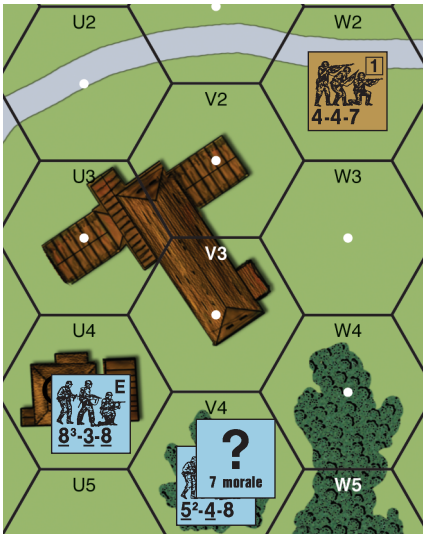
26.13 HEX CONTROL: Only an armed Good Order Infantry MMC at *ground* level can gain Control of the hex it occupies *[EXC: Mopping Up (12.153); Bridge hex (B6.); a vehicle Controlling the only Location within the hex (26.12)]*.

26.131 BRIDGE HEX: An armed Good Order Infantry MMC in either the Bridge Location or the Depression Location of a bridge hex can gain Control of the hex.

26.132 PILLBOX HEX: Control of a pillbox hex is gained by Controlling the pillbox Location *and* occupying the hex with an armed Good Order Infantry MMC while the hex is devoid of armed enemy ground units (B30.91).

26.14 BUILDING CONTROL: An armed, Good Order Infantry MMC at any non-rooftop, non-subterranean level in any hex of a building can gain Control of the building; a side need not physically occupy all levels or all hexes of a building to gain Control of it as long as the conditions of 26.11 are fulfilled. The different hexes of a Rowhouse structure (B23.71) are considered *one* building for building Control purposes.

26.15 CONCEALMENT: Dummy units cannot gain Control, but a concealed stack containing real units may if otherwise able to. Likewise, a dummy unit cannot prevent the opponent from gaining Control, but a concealed or HIP armed unit can. In all cases, control of a Location/hex/building by a concealed or HIP armed unit need not be declared until game end. Control of a Location/hex/building may be verified by Searching, Mopping Up, or physically occupying (at the start of the CCPh if G.4 applies) all Locations of the building/hex, but there is no requirement to do so.



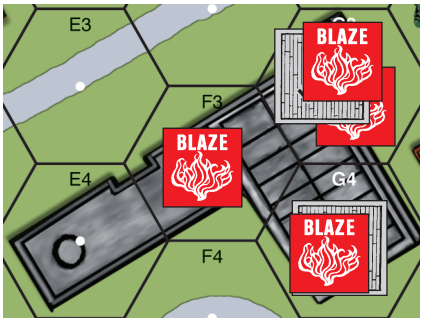
EX: Building 22U3 is Controlled (as are its three hexes and six Locations) by the German player. During the Russian MPh, a 4-4-7 enters the ground level of V2 and immediately gains Control of the building, hex V2, and the ground level Location of V2. It continues to the upper level of V2, gaining Control of this Location, then moves to the upper level of V3. In V3 it gains Control of the upper level Location, but *not* of the hex since it must occupy the ground level Location of a hex to gain Control (26.13). Based on the MF expenditure for entering V3, the 8-3-8 fires and breaks the 4-4-7, but this has no effect on Control since the 4-4-7 was in Good Order when it entered the Location. During the RtPh, the 4-4-7 routs back to the upper level of V2. In the next German MPh, the concealed 5-4-8 enters the ground level of V3. The German player already Controls the ground level Location and hex, but if he didn't, he would gain Control of them now. He does not gain Control of the building since the broken 4-4-7 is still an armed enemy unit and thus prevents the German player from gaining Control. The 5-4-8 continues to the ground level of V2, gaining Control of that Location (although this Control by a concealed unit need not be declared at this time), but not of the hex due to the 4-4-7 in the upper level. If the 4-4-7 is eliminated, the German player would then immediately gain Control of the building and hex V2. At that point, the Russian would Control the upper level Locations of V2 and V3, while the German player would Control the building, all its hexes, and all other Locations. If the building hexes were separated by black Rowhouse bars, Control of the Locations/hexes/building would still be as described above (although certain movement possibilities would be precluded).

If the 5-4-8 Mopped Up the non-Rowhouse building 22U3, the 4-4-7 (if still alive) would Surrender, and the German player would Control all Locations, all hexes, and the building. If building 22U3 were a Rowhouse which the 5-4-8 Mopped Up, however, the 4-4-7 (being in the same hex with the 5-4-8) would still Surrender, and the German player would still gain Control of the building and (by virtue of Mopping Up) the upper level Location of V2, but the upper level Location of V3 would remain under Russian Control (since Rowhouses are treated separately for Mopping Up—B23.71).

26.16 CONTROL FORFEITURE: A player forfeits to his opponent Control of any Location/hex/building which he has deliberately set on fire by Kindling (B25.11)—even if that Fire (i.e., Flame or Blaze) spread from elsewhere. If, due to a Fire deliberately Kindled by a player, parts of the playing area become totally unenterable by armed enemy ground units, the opponent immediately gains Control of every Location/hex/ building completely within that area, even if the area is unenterable partly by other causes (e.g., Rubble, non-Kindled Blazes, etc.). A player gaining Control due to a deliberately-started Fire does so even if he has no units in the area and regardless of the presence of enemy units. A player who forfeits Control in this manner may not regain Control until the Fire causing forfeiture is extinguished, or the Fire is later considered to have been accidentally started because Fire started by both sides has become joined (26.162).

26.161 A player is not held responsible for Fires started randomly while firing (e.g., with HE, FT, MOL, WP, or vs Huts [G5.6] or by causing a Burning Wreck), or for Fires existing at the start of play. An accidentally-started *Flame* counter does not affect Control in any way, but such *Blaze* counters may: if the *ground* level Location(s) of one or more adjacent hexes are unenterable by both sides because of such Blaze counter(s), the side that Controls a majority of hexes adjacent to this area also gains Control of all hexes of this area. Any Location that is unenterable due to such a Blaze or Rubble is Controlled by the side Controlling its hex. Control of a building that is unenterable due to such a Blaze is gained by the side Controlling *all* of the building hexes per the first part of this rule. The Locations/hexes/buildings must be unenterable by *all* Ground units of *both* sides for this rule to apply.

26.162 If a hex or a chain of adjacent hexes contains Fire (i.e., Flame/Blaze) deliberately started by *both* players, the Fire is considered accidentally started and 26.161 applies. If a hex or a chain of adjacent hexes contains Fire accidentally started (26.161) and Fire deliberately started by *one* player, all that Fire is considered deliberately started by that player.



EX: Blazes that started accidentally are in the ground level of 1F3 and G3 and in the 1st level of G3 and G4. Due to the Blazes, all Locations of F3 and G3 as well as the upper level Locations of G4 and E4 are unenterable. Before the Blazes were placed, the German player had gained Control of the building and its hexes/Locations. The German player retains Control of hex F3 and G3 until the Russian player gains control of the majority of the eight adjacent hexes, but as soon as that happens the Russian player gains Control of hexes F3 and G3 as well as all Locations of those hexes (since all the Locations are unenterable). The Russian player would then retain Control of F3 and G3 until the German player gains Control of a majority of the eight adjacent hexes. Control of hexes G4 and E4 is gained normally since the ground level Locations can be entered, while the level one and level two Locations (which are unenterable) are Controlled by the side controlling the hex.

If the Blazes were instead a result of a Kindling by the German side, the Russian player would automatically gain Control of: all Locations that contained a Flame/Blaze counter and all Locations unenterable due to those Fire counters (i.e., all Locations except the ground level of G4 and E4); all three hexes containing a Flame/Blaze counter; and the building (since it contains a Flame/Blaze counter). This is still true if the Flames/Blazes in the building were a result of spreading Fire and not a direct result of Kindling, as long as the original Fire source was created by Kindling.

©2006 Multi-Man Publishing, Inc.



ALLIED VP | AXIS VP

26.2 VICTORY POINTS: Victory Conditions are often decided on the basis of points awarded for the elimination, capture, or exit of units/equipment. These points are termed VP (Victory Points).

26.21 VICTORY POINT VALUE: The total VP value of a side's OB may be altered during play due to circumstances other than elimination/capture/exit (e.g., Leader Creation, a leader being Replaced, malfunction of MA, etc.); the VP value of such units/equipment are awarded normally according to their new VP value if eliminated/captured/exited thereafter.

26.211 INFANTRY & PRC: Each squad or crew is worth two VP *[EXC: a LC crew is worth one VP; G12.114]*. Each HS is worth one VP. A leader (including armor leader) is worth one VP plus one VP for each negative leadership modifier it possesses (a leader with a zero or positive leadership modifier is worth one VP); a wounded leader is worth full VP as if unwounded *[EXC: Japanese leaders; G1.65]*. A Hero is worth one VP, but only for exit VP purposes in a Seaborne Evacuation (G14.42).

26.212 VEHICLES & EQUIPMENT: Each aircraft *[EXC: Gliders]* and non-vehicular Gun is worth two VP. Each vehicle (including Wagon/ Sledge, but excluding motorcycle/Goliath/Boat/Glider) is worth one VP plus: one VP for a MA which is not malfunctioned/disabled; one VP for every multiple of five AF (FRU; a 0 AF is worth one VP) based on the AFV's single strongest AF (VP for any PRC are determined as per 26.211). See G12.84 for the VP value of LC and F.3 for the VP value of Guns/vehicles in desert scenarios.

EX: Russian vehicle VP values (assuming an inherent crew and no armor-leader/other-PRC): a T-70 is worth six points, a KV-1E seven points, a T-37 five points, an IS-3 ten points, an unarmed truck or a Wagon/Sledge one point (no crew), and an IAG-10-AA is worth four points.

26.213 All SMC/MMC/Guns are worth the same amount of VP regardless of whether they are in counter form or inherently present in any way *[EXC: Carrier HS are worth two VP when inherently present in a Carrier (D6.82); Guns are worth one VP when MA of a vehicle (26.212)]*.

26.22 CASUALTY VICTORY POINTS: Whenever a scenario uses Casualty Victory Points (CVP), each player receives CVP for eliminated/captured enemy units/equipment, and should keep a side record of his CVP by simply recording an appropriate number of slash marks as each piece is removed from play or by appropriately moving his VP marker along the Victory Point Track of the Scenario Aid Card.

26.221 A player receives CVP equal to the VP value for all enemy units/equipment that are eliminated. Units/equipment that leave the mapboard are considered eliminated for purposes of CVP *[EXC: if under Recall, Guards escorting prisoners (20.53), Paratroops/Gliders landing offboard, or if satisfying Victory Conditions or a SSR by such exit]*. CVP are not awarded for units/equipment which are merely broken, wounded, disrupted, malfunctioned, shocked or Immobile, nor for a disabled MA.

26.222 CAPTURE: A leader/MMC is captured for Victory Condition purposes if currently a prisoner. A Gun/vehicle/LC is considered captured if the opponent is the last to have Recovered the weapon or captured the vehicle (21.2), even if the Gun/vehicle/LC is currently not manned. A player receives CVP for an enemy unit/equipment when it is captured. If it is no longer captured, these CVP are immediately lost. During the course of play (including determination of immediate Victory Conditions), captured units/equipment are worth their normal VP value. As soon as the scenario has ended, captured units/equipment are worth double their normal VP to their captor *[EXC: at game end, the VP value of captured Chinese Guns/vehicles is quadrupled; G18.44]*. Should any captured unit/equipment be eliminated, it is no longer considered captured, although the elimination of that unit/equipment grants the capturing side normal CVP (26.221) instead of the CVP for the capture *[EXC: if a prisoner is eliminated due to an attack by its own side, the capturing side immediately receives double CVP for the elimination]*.

EX: When the MA of a Russian KV-1E becomes malfunctioned, the German player receives no CVP (26.221). The KV-1E is later Abandoned before being captured by a Germans HS, which gives the German player four CVP: one for a vehicle, three for 11 AF, but none for functioning MA or Inherent crew since the KV-1E currently has none. The Russian player then attacks and eliminates the KV-1E. For this the Russian player gains one CVP (for the HS manning the AFV) while the German retains the four CVP for the elimination of the AFV. If the KV-1E had not been eliminated, the German player would instead receive four additional CVP at scenario end when captured units/equipment count double CVP.

26.23 EXIT VICTORY CONDITIONS: Some Victory Conditions are based on the exit of a set number of VP (26.21) from the mapboard through a specified exit area. A player receives Exit VP equal to the current VP value for units/equipment exited according to the Victory Conditions *[EXC: a player receives no exit VP for vehicles under Recall or broken Personnel (unless exited in a Seaborne Evacuation; G14.42)]*. Captured enemy units/equipment exited according to the Victory Conditions count as normal VP during play and double exit VP at scenario end (26.222).

26.3 AVOIDANCE: Whenever the Victory Conditions of a scenario lists the Victory requirements for only one side, the other side wins by avoiding those Victory Conditions.

26.4 BALANCE: Each scenario contains a section entitled "Balance" which proposes a variation to the basic scenario format which is advantageous for the stated side. Whenever both players wish to play the same side in a scenario, they decide the matter with a dr and the loser of the dr gets to claim the Balance provision of the scenario for his side as a consolation.

CHAPTER A FOOTNOTES

1. *A.2 ERRORS:* To the unscrupulous, these mechanics for handling errors might be viewed as a license to steal. We do not mean to insinuate that cheating is acceptable behavior; rather, that backing up a game to accommodate a forgotten rule/unit is a drag on play. In essence, the player's knowledge of the system and methodical application of its benefits as opportunities present themselves becomes an added skill factor better reflecting the abilities of an experienced battlefield commander. Ultimately, the only protection against a cheater is not to play him.

2. *1.22 RANGE:* Range is far more than simply a measure of the distance a unit's weapons can shoot. It is also an abstracted measure of the unit's discipline, fire doctrine, training, and willingness to engage an enemy. The player who assumes that his units will fire at any enemy they can see is giving them the benefit of far more heroic and aggressive tendencies than they usually possessed. Fire draws fire in return, and more units sought to duck a fight than to seek one.

3. *4.15 INFANTRY OVR:* The inclusion of an Infantry OVR rule was a source of heated debate among our playtesters—many of whom opposed it as an unnecessary complication. Others pointed out the End Game problem of using SMC as unrealistic sacrifices to "block" movement into hexes required for Victory Conditions. The resulting rule is an attempt to deal both with the artificial time constraints of the Game Turn and to give lone SMC the option of giving way before overwhelming force rather than risk sure elimination or capture.

4. *4.2 MECHANICS OF MOVEMENT:* Players who find it difficult to remember which units have already moved should get in the habit of turning all units (for which facing is not important) to face North after movement on even-numbered turns, and south on odd numbered turns. At the end of the MPh all such units should be turned to face that direction.

5. *4.42 IPC:* Players may question why a squad has no more IPC than a crew or HS which represents half as many men. However, a squad does have twice

©2006 Multi-Man Publishing, Inc.



as much IPC as a HS when you consider that the squad can be Deployed into HS to double its portage capacity. Deploying a squad into HS decreases its fighting capacity, however, which is traded for the unit's increased IPC. A squad which forfeits some FP or Range to increase its IPC by Deploying into HS is realistically burdened by the excess baggage it is transporting.

6. *4.43 POSSESSION:* I've often found it humorous that the very people who complain about the overwhelming omniscience of the player (i.e., the availability of too much information or the lack of "Fog of War") are usually the first to whimper when a rule such as the Sniper rule takes control out of their hands and relegates to chance decisions that virtually no battlefield commander could influence. Such is the case here. Broken units are not allowed to transfer or drop their weapons because allowing them to do so expands the omniscient player's control over broken units that he should have little or no control of. Allowing a unit in a 40 meter hex to automatically know that a SW therein is out of action and to go man it is assuming an awful lot. Does the unit even know where the SW is or why it isn't firing; would it be willing to leave its own position to man it; would the broken unit even give it up? I won't even go into the case of an apparently terrorized broken unit which routs but has the presence of mind to know where to drop its SW so that it can be recovered by friendly forces.

7. *5.5 EQUIVALENTS:* Infantry crews/HS manning Guns are treated as squads for non-vehicular stacking purposes to simulate the difficulty that multiple Guns would have in terms of adequate dispersal, concealment, and use when clustered together in the same Location. The inherent attack and defense penalties of the overstacking rules encourage players to adopt more realistic tactics in terms of heavy weapon dispersal.

8. *7.21 PBF:* Adjacent and same-hex fire attacks are given double or triple FP not only due to their close proximity, but because grenades are now factored into the FP generation. This is the main reason why a unit two or more levels beneath an enemy Location does not qualify for PBF, while the higher unit firing down, does; it is easier to drop a grenade than to throw it up—and if you miss while dropping a grenade it doesn't come rolling back up to you. Players should also realize that a Defensive First Fire attack at an adjacent enemy does not necessarily mean that the attacker held his fire until the enemy moved within 40 meters; the attack could also represent the cumulative effect of fire vs the unit as it moved during the MPh, culminating in a net effect in the adjacent hex.

9. *7.24 AFPh FIRE:* The rationale for penalizing the AFPh fire of units which did not move during that Player Turn is twofold. The obvious benefit is that it increases playability by eliminating the player's burden of remembering two phases later which units have moved and which have not. From a realism viewpoint it reflects the fact that the fire is occurring at a later time and therefore is not using the full quantity of FP assumed to be used during Prep Fire. By sheer volume of fire the amount of damage is likely to be correspondingly less. This "time" theme is one which is consistently applied throughout the rules and the main reason why Multiple ROF is not allowed during the AFPh.

10. *7.25 OPPORTUNITY FIRE:* Although Opportunity Fire is executed during the AFPh it is considered a form of Prep Fire and therefore not subject to AFPh penalties, because the units so assigned are assumed to be "firing" or alert for fire opportunities since the PFPh when they were designated as Opportunity Firers. Only the mechanics of that fire have been changed by allowing them to pick their targets during the AFPh so as to be able to fire more effectively at recently discovered enemy units. Vehicles are not allowed to use Opportunity Fire because of their restricted fields of vision, and because they are the only units capable of both movement and fire in their own MPh (Bounding First Fire).

10A. *7.37 Incremental IFT:* The Incremental IFT and its accompanying article ("One-Half FP") first appeared in the ASL Annual '89. (In 1998, both were reprinted in *Classic ASL*.) Thereafter, various commentaries appeared in several succeeding Annuals. At one time, the ASL community seemed seriously divided over whether the IIFT should either be declared the official IFT or should be relegated to the dustbin. Since that time, however, consensus has settled upon treating the IIFT as just another optional rule, and that is how we present it here in the 2nd edition.

One of the several criticisms leveled against the IIFT was that, by adding additional PTC effects for higher Final DRs in the various intermediate FP columns, the IIFT strips concealment more readily than does the regular IFT. To counter this criticism, some suggested making all those additional PTC effects conditional, so that they only applied to unconcealed units and thus would not strip concealment too easily. We tend to agree with this thinking, and seriously considered changing the IIFT in that manner. In the end, however, we decided to leave the IIFT essentially unchanged from when it was originally published in 1989, but highlighted such "conditional" PTCs on the IIFT in blue. Anyone concerned about concealment being stripped away too easily can adopt the "conditional" PTC as a house rule.

11. *7.83 PIN:* Remember that a broken unit doesn't necessarily do what is best for it (and certainly doesn't do what the player would like it to do); it has lost its discipline and may panic—thus making it once again subject to FFMO/FFNAM penalties during Defensive First Fire or Subsequent First Fire.

12. *8.21 RESIDUAL FP:* Residual FP is far less effective than normal FP because it is incidental; i.e., not aimed. It may hit and affect other units moving up into that position, but it does so purely by chance. Nevertheless, even when obstacles block LOS between the source of Residual FP and later entrants of a target hex (such as often happens when firing at a Bypass unit), the discomfiting effects of nearby fire—even the very sounds of battle—can be enough to cause units to falter and refuse the ATTACKER's command for further movement. This is reflected by allowing all Residual FP attacks to occur vs the moving occupants of a hex regardless of LOS to the original firer who left that Residual FP while also affording the obstacle TEM to Bypassing units.

13. *8.31 FPF:* FPF adversely affects only those firing units already marked with a Final Fire counter because only those units are assumed to have been tested to the very limits of their breaking points. A unit which uses Defensive First Fire or Final Fire is considered in no immediate danger of being overwhelmed because those attacks fall within the normal limits of its volume of fire. A unit which uses FPF, however, is being pressed beyond normal limits and may break under the pressure, if for no other reason than an appearance of being overwhelmed before it can reload.

14. *9.8 dm SW:* Unlike other nationalities, which used entirely different weapons in the light and medium/heavy machine gun roles, the German MG 34 (and later also the MG 42) was the first general purpose MG; i.e., it would be used as either a LMG or (with the proper attachments) as a MMG/HMG. As a LMG the MG 34 was bipod-mounted and often drum-fed, whereas the HMG version was simply the LMG mounted on a stable tripod, equipped with a telescopic sight, and usually belt-fed (all of which improved the MG's range, accuracy, and volume of fire). Thus when a German MMG/HMG was dismantled by removing its tripod/sight, the basic bipod-mounted LMG still existed. Incidentally, the MMG version in the game represents a HMG with less ammunition and no telescopic sight.

15. *11.15 MELEE:* It should be remembered that Melee can stand for other events than the commonly held visions of a deadly wrestling match with desperate men grappling at knife point. Melee can also depict a situation wherein opposing sides are in close proximity and aware of each other's presence, but not necessarily in view, and both sides are afraid to make the first move—a standoff test of wills. The most vivid example is of the fighting in Stalingrad, where whole platoons occupied adjacent rooms of the same building for hours but were afraid to even make a sound let alone venture into the other's lair. The fighting may indeed be hand-to-hand, but it can also be resolved with a hand grenade or burst from a SMG, and it may well represent no actual combat at all—a stalemate which effectively removes all involved from considerations beyond their immediate environs.

16. *11.622 CLOSE DEFENSE WEAPON SYSTEM:* The 92 mm grenade projector is limited to use only after being attacked in CC to force players to use it realistically as the CC defense mechanism it was, rather than as another tool in a tank's offensive arsenal which might encourage a player to go hunting CC opportunities with his tank—something a real tank commander took great pains to avoid. By requiring that the tank or its accompanying escort be attacked first, we guarantee that the projector is being used against assaulting troops—not to seek out hidden defenders in their holes.

17. *11.8 STREET FIGHTING:* An AFV was at a distinct disadvantage in the close quarter combat posed by the narrow city streets of Europe. The abstracted mapboards of the game system do not give adequate representation of the suffocating confinement of street fighting, thereby requiring special treatment.

18. *12.1 CONCEALMENT:* A more realistic alternative for players who are willing to sacrifice speed of play is to secretly record the "contents" of each "?" and keep those pieces offboard out of sight until revealed. Each "?" is printed with an ID letter for this purpose. A "?" can exist alone in a hex only when this system is in use. Ideally, of course, the best "Fog of War" or concealment rules involve use of a neutral third person acting as a referee. The players make their moves in separate rooms on separate games, while the referee observes their moves and reports to the opponent only those moves and attacks which he judges the opponent will be able to see. Play-by-phone

©2006 Multi-Man Publishing, Inc.



schemes with the judge acting as a neutral moderator while positioning all the counters on his board as the action unfolds but passing on only those moves which he judges to be in actual LOS of an opposing unbroken unit make for fascinating, if somewhat lengthy, simulations of actual combat.

19. *13.1 CAVALRY:* While cavalry played a relatively minor role in WWII it nonetheless saw action at one time or another with nearly every nationality that took part in that war. The exploits of German, Russian, and Polish cavalry are relatively well known, but little has been written concerning the battles fought by Italian, Hungarian, Rumanian, Finnish, Greek, or Japanese cavalry formations—to name only some of the belligerents that used horse soldiers. Of course, massed cavalry charges became less and less common as the war progressed, as the lethality of automatic weapons in well-sited defensive positions often caused the slaughter of both men and horses. Under the right conditions, however, and using more suitable tactics, cavalry units fought on in the Balkans and on the Eastern Front until the very cessation of hostilities. Therefore, cavalry is a valid adjunct of WWII infantry combat. The rule which allows any Infantry unit to become cavalry by mounting a horse counter is an admitted simplification to avoid the need for written records. A more realistic approach would be to limit cavalry capabilities to specific units by recording the ID letters of those units or using infantry counters from the basic SQUAD LEADER game system which can be distinguished from ASL counters. Scenario designers might want to limit cavalry capability to only one side.

20. *14. SNIPERS:* Snipers are a breed apart from the average soldier. Stealth and patience are every bit as important as marksmanship. They work alone, often in no man's land or even behind enemy lines, and are subject to only one order: survival. A sniper strikes only when he feels assured he can do so without being detected, and may pass up endless attack opportunities waiting for a better target. As such, snipers must be free of emotion and oblivious to all events not directly related to their own survival and the pursuit of a clean kill. Consequently, sniper activity is no more likely at the front of an advance than in the rear. A sniper does not attack the first target he sees; indeed, he may wait for hours with enemy activity all around him before selecting a "safe" target, and therefore sniper activity occurred "behind the lines" quite frequently. Some players will doubtless object to this depiction of snipers because they cannot control their attacks, but in real life no battlefield commander could control a sniper's attacks. Such attacks are indeed random, and to present them in a format where a player can dictate when they will occur would be extremely ahistorical. Each player should watch for and announce SAN DRs made by either player. A side benefit of the rule in its present form is that it acts as a sort of balancing mechanism; the player getting the majority of the good DR is also likely to be subject to more Sniper attacks as a consequence. Furthermore, it discourages the old "pot shot" mentality wherein players rolled the dice for every conceivable 1 FP attack because they had nothing to lose. Now they do. Another benefit is that solitaire play is much enhanced by random depiction of snipers because the player never knows "where" they are and therefore cannot be subconsciously taking unrealistic countermeasures. Lastly, some may complain that leaders are not targets in multi-target Locations often enough. They cite the fact that snipers were trained to select leaders as their targets. I only point out that a leader in a hex with a squad representing ten men has a 1000% greater chance of being the sniper's target than any one of the men represented by that squad. Sniper Checks are not allowed following ineffective sniper attacks merely to speed up play; the lethality of a Sniper Check has been correspondingly increased to abstractly reflect other such attempts following ineffective sniper attacks.

21. *15.431 BERSERK CHARGE:* Berserk units lose their APh capability because the "time" normally allotted for that activity during each turn is being used in the MPh to grant them 8 MF. It also simulates well their frenzied rush of a defender by forcing entry during the MPh (where TPBF and FPF come into play) rather than allowing them to take the more cautious route allowed by an APh capability.

22. *15.5 SURRENDER:* Some players become indignant when a 2 DR on a MC or Rally Attempt ultimately results in surrender when the subsequent Heat of Battle Final DR comes up 12. Such people feel cheated, so wedded are they to the concept that a low DR is good. What they do not realize or care to consider is that the 2 DR is merely a convenient activator for the entry of the rule; it doesn't guarantee them a positive result—only entry to a range of possible results that are generally favorable. If a unit, due to nationality, Class, or broken status, has poor Heat of Battle DRM, it merely detracts in a convenient way from the percentages that the unit should have been favorably affected by a MC or Rally Attempt DR of 2 in the first place. The alternative, making units subject to Heat of Battle only on certain types of MC, subsequent dr, or other hard-to-recall conditions, is hardly worthy of the name "alternative".

23. *16. BATTLEFIELD INTEGRITY:* In most wargames, a side often fights on to the last counter regardless of the punishment the parent formation has taken. In reality, however, this is seldom the case. A combat formation, as a whole, will take only so much punishment before it disintegrates into a panic stricken mob. The effect is heightened if casualties have been disproportionately high among the leaders.

24. *16.11 BPV LOSSES:* Loss of BPV due to Unit Substitution is partly balanced by Battle Hardening, but more by the fact that units lost due to a double break don't represent casualties so much as it represents a unit which has lost its combat coherence. It has become ineffective in game terms but not necessarily because all of its men are dead. They could be stragglers, wounded, prisoners, or just plain survivors—men attempting to avoid the enemy rather than seek him out.

25. *19.13 UNIT SUBSTITUTION:* Unlike MMC substitutions, which usually reflect a loss of strength due to an inherent casualty suffered when a MC is failed, the Replacement of a leader reflects the loss of respect by his peers for breaking down under fire.

26. *19.2 GREEN & CONSCRIPT TROOPS:* Even if these men were properly equipped (and they often were not), they frequently lost their equipment in their first encounter with an enemy or were hesitant to use their weapons effectively. These units are Conscripts, depicted not only by lower quality Strength Factors but by special restrictive rules as well. Even those nationalities which, due to time and circumstance, did not have to field such forces, were constantly committing newly raised and untried troops to battle, or refitting mauled units around a cadre of veterans who, under the pressure of enemy fire, could revert back to a level of performance not in keeping with their training and equipment. These units are classified as Green and were very unpredictable; they could stand like a stone wall one day and be driven like sheep the next. Even veteran troops could be reduced to sniveling shadows of their former selves if subjected to enough unnerving firepower. Therefore, Green troops are often represented by line infantry units with the capacity of becoming Green when brought under fire, while Conscripts often start a scenario as such, although they too can start a scenario under the guise of higher quality troops only to be replaced in mid-scenario by poorer quality troops, due to the loss of a key veteran from within their ranks. Therefore as a battle unfolds and one's troops are exposed to losses and unnerving fire, they will become less and less responsive to the player's command.

27. *20.55 ESCAPE:* For the most part, Italians and non-Finnish Axis Minors were relieved to be out of the fighting—especially if they were captured by the Western Allies. In those rare instances when Japanese were captured, they were too humiliated to consider returning to their own side—feeling that their dishonor had already claimed their lives.

28. *22.6 MOL:* In the absence of more sophisticated weaponry, partisans and other poorly-equipped units often relied on a primitive, but occasionally effective, home remedy known as the Molotov Cocktail. The main advantage of the "infantry antitank petrol bomb" was its availability. Any bottle, some petrol, and a suitable wick could be turned into a dangerous weapon in the hands of an experienced and courageous foe. To use a MOL, one merely lit the wick and hurled the bottle at the target. More sophisticated types needed no flame, the chemical contents igniting upon contact with the air. Hopefully, the bottle broke upon impact and the contents became an instant inferno—not as safe, quick, or easy to use as a hand grenade, but considerably more effective against armor.

29. *24.11 SMOKE GRENADES:* SMOKE grenades (as opposed to canisters or shells placed by OBA, Guns, or AFV—which are represented by $^{5}/_{8}$" SMOKE counters) created smoke for only about 30 seconds and contained far less chemical agents, resulting in a smaller smoke screen of short duration.

30. *25. NATIONALITY DISTINCTIONS:* Nationality Distinctions vary troop capabilities from one nation to another, and while patently unfair in their application of stereotyped and over-simplified traits to all troops of a country without exception, nonetheless do serve to give the game much of its flavor. All variations from the basic game system are identified in an accessible format on the National Capabilities Chart, and are alluded to in section 25 only where special cases may make clarification desirable. The Leader Generation (LG) column of this chart is used only for the construction of DYO scenarios and is explained in H1.7.

31. *25.11 SS:* Early-war SS formations and other pre-1944 SS formations which are in need of rest and/or refit can be represented by the 4-6-8/2-4-8 SS squad/HS Class.

©2006 Multi-Man Publishing, Inc.



32. *25.232 HUMAN WAVE:* The eight MF allotment for a Human Wave attack does not necessarily reflect an all-out foot race towards the enemy. Observers of the Eastern Front would most likely remember the early Russian Human Wave assaults for the steady progress of their linked-arms ranks into devastating fire. The eight MF allotment is both a concession to playability (so that the player need only remember the MF expenditure of the chain as a whole, rather than that of its individual hexes) and a method for allowing the entire chain to maintain an even progression regardless of terrain. Previous experience with the Human Wave rules had shown that many players were confused by the phrase "in the same general direction" and that the application of that phrase was subject to abuse. The updated rules replace that phrase and attempt to tread a fine line between giving the Human Wave player either too much flexibility or not enough, without being too complex. This is further complicated by the need to use these rules as the basis for Cavalry Wave and Japanese Banzai attacks. The updated rules loosely tie the HW units to a specific Hex Grain. Other methods were tried based on utilizing either a covered arc or a channel, but the updated rules proved to be the best approach.

33. *25.24 PARTISANS:* Partisans of all nations shared the same characteristics. They were usually weak in firepower, with few heavy support weapons. Lacking in training and discipline, they rarely held their own in a sustained firefight with enemy regulars. On the other hand, they usually enjoyed the benefits of operating in familiar territory and with the element of surprise. These advantages, coupled with the fact that they usually faced rear area support troops, made them troublesome adversaries. As a general rule, partisan units should be prohibited by SSR from deploying freely, making multi-Location firegroups, and attempting to entrench.

34. *25.32 ORDNANCE:* U.S. ordnance early in the war suffered from inferior optical and fire control ranging equipment due, in part, to a dependence on German optical glass. In addition, U.S. forces in Africa experienced difficulties with over-age ammunition. U.S. industry provided adequate substitutes only as the war progressed.

35. *25.5 FRENCH:* The French, considered by most experts of their day to have the finest army in Europe, were plagued by outmoded tactics, the dreary French political climate, confusion, and the disheartening failures brought about by the unexpected successes of the blitzkrieg. Defeatism became rife among many units of the French Army soon after the initial armored breakthroughs; thus the poorer broken Morale Level of their MMC.

36. *25.6 ITALIAN:* Italy was a country woefully unprepared for the total war into which her leaders cast her. Despite a serious lack of raw materials, inadequate heavy industry, an unprepared military, and a less than fervently bellicose population, Mussolini and his cohorts deemed it necessary to forge ahead with their new Roman Empire before Hitler had conquered everything worth ruling—a tragic miscalculation. The Italian soldier has been much maligned for his lack of fighting spirit and tendency to surrender en masse, but it must be remembered that his training was generally sparse, his equipment poor, his officers insulated by class and tradition, and his will weakened by lack of conviction. The Italian soldier fought bravely when well led and equipped but usually one or the other (if not both) of these factors were lacking. Elite squads should generally be used only in scenarios recreating actions of the Grenadiers of Sardinia, the Folgore or Julia Divisions, the Alpini, or the San Marco Marines. Bersaglieri formed the full infantry complement (one regiment) of the armored divisions and one regiment of each motorized and cavalry division, and were also used in the recon role in these divisions. The 3-3-6 squads represent Colonial troops and Blackshirts. Colonial troops were merely native levies trained and armed only for tribal warfare, unaccustomed to maneuver, with mostly Italian officers. The Blackshirts were the Fascist Militia, grudgingly accepted as fighting forces by the Army due to its need for manpower. They were summarily trained and only lightly armed. Blackshirts were usually assigned on the basis of one Legion (two weak battalions) per division, from 1940 on.

37. *25.7 FINNISH:* No nationality can lay claim to having fought as valiant and skillful a defense of their homeland as the Finns of 1939-44. Extremely individualistic, patriotic, and ruthless, totally at ease in severe weather conditions, the Finnish soldier was tactically superior to his foe and fanatic in his resistance. The superiority of the Finnish soldier was based upon a deeply ingrained quality of "sissu"—determination and individuality. This trait was evidenced in combat where the Finnish soldier rallied quickly and often without the intervention of his leaders. However, the Finns did not share their German ally's thirst for conquest and usually refused to take offensive action once they had recovered their historic borders.

38. *25.8 AXIS MINORS:*

Romania: Romania, with no allies left following Germany's successes through 1940, bowed to German pressure and surrendered Bessarabia to Russia, northern Transylvania to Hungary, and southern Dobrogea to Bulgaria. Aware that she now depended on Germany to guarantee her survival, Romania joined the Axis in November 1940; her objective thereafter, both as an Axis and later an Allied partner, was to regain the lost territories. Although the Romanian 1st Army was kept from the eastern front to guard the border with Hungary, Romania was one of Germany's most dependable allies until she switched sides in August 1944 after the death of General Antonescu. Each Romanian infantry battalion had a HQ company, a Transport and Supply unit, a MG company and three infantry companies. Battalion support was provided by three MG platoons, a Mortar platoon, and a single AT Section. Each MG platoon had three MG squads each with two MG and crews. Each rifle company had three rifle platoons of three squads and a LMG.

Hungary: A traditional German ally, Hungary in 1938-1940 regained through the assistance of Germany most of the land lost after The Great War, albeit while simultaneously gaining the animosity of her neighbors. Hungary followed Germany first into Yugoslavia and then into Russia. Each Hungarian infantry battalion consisted of three rifle companies (with a HQ section, three rifle platoons and a light mortar squad each) and a heavy weapons company (with platoons of medium MG, 81mm mortars, and light AT guns). Each Mountain rifle company was composed of a HQ platoon and 4 Mountain rifle platoons; each platoon had three squads and its own light mortar squad outfitted with a 50mm mortar.

Slovakia: Urged on by the Germans, Slovakia declared its independence from Czechoslovakia in March 1939, and quickly helped itself to the Czech equipment within its borders. It repaid its protector by participating in the invasions of Poland and Russia. Each infantry battalion had a battalion HQ, a Combat Support company, and three rifle companies. The battalion HQ had a small two-squad security section for local control. The Combat Support company had a HQ section and five MG platoons, two heavy and three light. The two heavy MG platoons each had 4 MG and crews. The three LMG platoons also had four HS armed with the LMG. While the LMG squads were administratively under the command of the Combat Support company, each infantry platoon had a LMG squad attached to it for operational purposes. Each rifle company had four rifle platoons each with four rifle squads. The Germans began disbanding Slovakian units in May 1944. After putting down the August 1944 uprising in Slovakia, Germany disarmed all remaining Slovakian units.

German-Croatian units in Russia: Within a short time of the German conquest of Yugoslavia, over 5000 Croatian volunteers, mostly from Croatia's *Ustashi* Party enlisted in the fascist cause. From this group, a German-Croat Legion was established as the 369th Reinforced Croat Infantry Regiment serving as part of the 100th Jäger Division. The regiment was formed using the German organization and command structure and had three infantry battalions and an attached artillery battalion. Each infantry battalion had three infantry companies and one weapons company. All regimental transportation was horse-drawn, and all weapons were of German manufacture. One unusual feature of this unit was that it was officered completely by Croatian officers even while under German operational control. This unit was destroyed at Stalingrad at the end of 1942, but Croatian volunteers continued to man German units throughout the war, and the "German-controlled" sectors of Croatia continued to raise forces to fight against the Russians. Use German counters and Nationality Distinctions in Russia prior to 1/43.

Italian-Croatian Units in Russia: The Italian-Croat Legion was organized as a reinforced regiment (the "Light Transport Brigade") with two Blackshirt battalions, a Replacement battalion supported by a mortar company and an artillery battalion. The two Blackshirt battalions each had three infantry companies and a weapons company of light mortars and MG. The Replacement battalion was slightly heavier in mortars with three 81mm mortars assigned for direct support as well as light mortars and MG. The Italian-Croat Legion was dispatched to the Russian front on February 1, 1942, assigned to the Italian 3rd "Celere" Mobile Division under the overall command of the Italian 8th Army. It entered combat in May and fought well, but was eventually overrun and completely destroyed by the Russians around the Don River in December 1942. Use Italian counters (3-4-6s) and Nationality Distinctions for these units. Starting in May 1943 the Italians sponsored another "Legion," but those troops did not see any action before Italy surrendered, after which they were used to reinforce existing German-Croatian units.

Croatian units in Yugoslavia: Until the arrival of Soviet forces later in the war, Croatian Army units were engaged primarily in anti-partisan activities, fighting mostly against the Communist partisans of Tito. A major problem for the Croatian Army throughout the war was the exodus of many of the best

©2006 Multi-Man Publishing, Inc.

Croatian officers, non-coms, and soldiers to volunteer for service in the German or Italian armies. Croatia raised the 369th Croatian Infantry Division in March 1943, the 373rd Infantry Division in late 1943, and the 392nd Infantry Division in 1944. All three Croatian divisions fought against the partisans and never left the confines of Yugoslavia. Additionally, the infamous *Ustashi* militia was active in anti-partisan activities, gradually playing a larger and larger role. Use Axis Minors counters and National Characteristics for all Croatian units beginning in 1943.

Bulgaria: Bulgaria joined the Axis in March 1941 but refused to attack Russia. The Bulgarian Army remained behind in the Balkans as security forces for the occupied Macedonian (Yugoslavian) and Thracian (Greek) areas. There had been, historically, a deep and bitter hatred between the Greeks and Bulgarians for centuries and this was released during the occupation of Greece. The harsh and cruel treatment of the Greek civilians by the Bulgarian soldiers helped to restrain Greek partisans from operating during the early part of the war but the unrelenting atrocities on Greek civilians by the Bulgars led many Greeks to join in with local partisan bands in ever-increasing numbers. Following the death of Tsar Boris III and Romania's defection in August 1944, Bulgaria abandoned Germany and joined the Allies under pressure from Russia. The normal Bulgarian rifle company was infantry heavy but was very lightweight in its firepower. While the rifle company did not have an inherent Heavy Weapons (HW) platoon, it was able to draw upon the resources of the parent battalion or regiment for certain types of HW support. These attachments included 20mm and 37mm AT Guns, 37mm INF guns, and light 50mm Mortars from the regimental Close Support company while the battalion MG company provided HMG support.

39. *25.8 NO QUARTER:* An SSR should generally apply No Quarter to both sides in actions involving Axis Minor troops against partisans.

40. *25.81 PAATC:* Generally, an SSR should show that 1st Line Infantry components of the armored divisions take PAATC rather than 1PAATC.

41. *25.86 HUNGARIAN TROOPS:* As the fortunes of war turned against the Germans and the Russians started driving the Axis forces out of Russian territory, Germany's Eastern European allies started having second thoughts about their support for the Axis. Partisans staged an abortive uprising in Slovakia in August 1944, aided by significant defections from the army. The Tiso regime managed to maintain control, but many Slovakian Army units disbanded, with the ethnic German *Volksdeutsche* transferred en masse to the Wehrmacht. Also in August, as the Soviet offensive drove into Romania, General Antonescu was arrested and on August 25th Romania abrogated its treaties with the Axis. The Red Army moved into Bucharest on August 31st, and Romania went from being Germany's strongest ally in the region to being the biggest thorn in Germany's side, seeing significant action in Transylvania, Hungary, Slovakia, Moravia, and Bessarabia. Tsar Boris III's death and Romania's defection in August 1944 prompted a pro-Allied coup in Bulgaria, which followed Romania's example and switched sides. The army attempted to frustrate Germany's retreat from Greece, although not too successfully. In October 1944, as the Russians closed in on Hungary, the regent Vice-Admiral Horthy declared an armistice as he tried to negotiate a deal with the Western Allies. Hitler had Horthy arrested, installed the ultra-nationalistic Arrow Cross regime in power, and had the army placed under direct German control. Hungarian units continued to fight on the Axis side into May 1945. The Soviets created a rival Hungarian government, which promised Stalin eight divisions to fight the Axis but was unable to deliver. The Axis Minor units that switched sides at the end of the war were otherwise unchanged and continued to use the same weapons, doctrines, etc. Because the Hungarians ended up fighting Romanian and Bulgarian troops, some way was needed to distinguish between the two armies. The Hungarians had the greatest variety of vehicles that were not also used by other Minor nations. Representing them with the two-tone counters thus required that fewer such vehicles had to be in both regular green counters and the two-tone counters. With the blue border on the two-tone counter, Hungarians can also use the occasional German vehicle/SW while concealed.

42. *25.87 ROMANIAN ATMM:* Like all of Germany's minor allies, Romania suffered from a chronic shortage of adequate anti-tank weapons to combat the Soviet armor. Romania addressed this issue during the army's restructuring following the Stalingrad debacle by creating special tank destroyer teams. The job of these hand-picked two-man teams was to close with and destroy enemy AFV at close quarters by whatever means necessary—usually improvised antitank mines made by banding together several fragmentation grenades or using PF. The 1PAATC exception for 1st Line Romanians, the -1 PF Check drm for Elite Romanian MMC vs AFV, and this ATMM availability all help to reflect Romania's use of these teams.

43. *25.9 ALLIED MINORS:* The Blitzkrieg never really gave the forces of the various invaded neutrals (Poland, Belgium, Netherlands, Norway, Greece, Yugoslavia, etc.) a chance to develop a national characteristic. For the most part, these countries were defended by reservists hastily mobilized to deal with a better equipped and trained invader already flushed with momentum from initial successes. Lacking sufficient training and resources to withstand the superior firepower of the enemy in a pitched battle, these forces, although brave enough, were often shocked into submission by the seemingly hopeless nature of their defense. Nonetheless, many of these nations (most notably Poland and Belgium) did manage to field some elite, well-trained units. Furthermore, Polish and Belgium non-reservist Infantry squads were equipped with inherent BAR rather than with the occasional LMG.

Errata to accompany the 2006 replacement pages

A8.1 At the end remove "*[EXC: Impulse Movement; 13.6; 25.232; D14.2; E11.2; E11.52.]*"

E11.2 In line 3 replace "AFV platoon movement (D14.2-D14.22)" with "Impulse Movement (D14.3)".

E11.52 In line 1 replace "Impulses" with "Impulse Movement (D14.3)". In line 8, after "Human-Wave" add "/Armored-Assault".

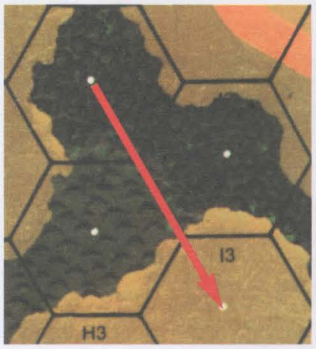
©2006 Multi-Man Publishing, Inc.

B. TERRAIN

ORDER OF PRESENTATION:

1. Open Ground
2. Shellholes
3. Roads
4. Sunken Road
5. Elevated Road
6. Bridges
7. Runways
8. Sewers & Tunnels
9. Walls & Hedges
10. Hills
11. Cliffs
12. Brush
13. Woods
14. Orchard
15. Grain
16. Marsh
17. Crag
18. Graveyard
19. Gullies
20. Streams & Crest Status
21. Water Obstacles
22. Valley
23. Buildings
24. Rubble
25. Fire
26. Wire
27. Entrenchments
28. Minefields
29. Roadblocks
30. Pillboxes
31. Village Terrain
32. Railroads
33. Stream-Hex Terrain
34. Towers

B.1 SYMBOLOGY: For aesthetic purposes, terrain symbology may extend marginally out of a hex into an adjacent hex of another type, but most hexes are dominated by one specific terrain type and are governed by the rules for that specific terrain type. Usually, the dominant terrain type includes the hex center dot, but occasionally building hexes have a hex center dot in Open Ground; an Open Ground hex center dot never changes a hex containing a building to an Open Ground hex. In some cases a hex will contain more than one terrain type with neither dominant over the other, in which case the terrain effects of both types are cumulative.



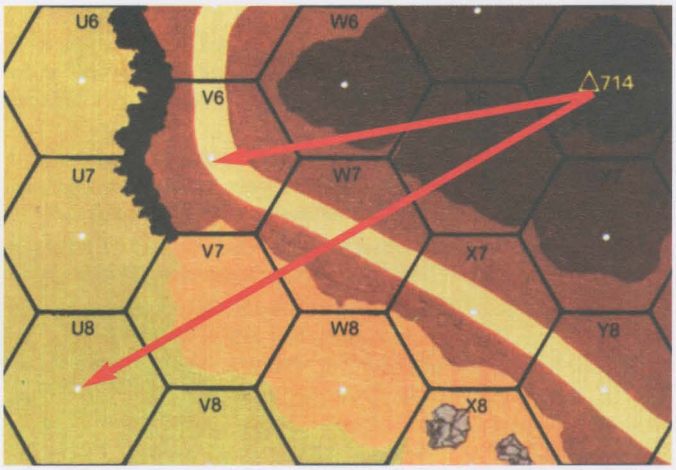
EX: The brush symbology of 14H2 extends into H1 and I2 but there should be no doubt that the latter are woods hexes. However, a LOS from H1 to I3 is subject to a +1 Hindrance DRM due to the Brush depiction crossed along the H2-I2 hexside. Common sense must prevail. Just because the hex center dot in 14P1, dD0 of *Deluxe ASL*, or 4X8 does not touch the buildings in those hexes does not mean that they are Open Ground hexes; they are building hexes although a LOS may be traced through them as if they were Open Ground, provided the building depiction is not crossed. On the other hand, 2I9 is a combination building-woods hex and 2M4 is a wooded hill hex.

B.2 COT: This term means "Cost of Terrain" and refers to the normal MF/MP cost for entrance of a hex plus the movement cost of any Artificial Terrain therein. Therefore, if Infantry must pay double the COT to enter a higher elevation hex also containing SMOKE it costs 2 × 2 = 4 MF, not 2 × 1 = 2 + 1 = 3 MF *[EXC: Abrupt Elevation Changes; 10.5]*. COT is usually used in conjunction with an added cost to enter a hex; e.g., it costs Infantry one MF plus the normal cost of entry into the next hex to cross a wall hexside. Therefore, a squad crossing a wall hexside into an Open Ground hex pays two MF (1 + 1 [COT] = 2), while a squad crossing a wall hexside into a woods hex pays three MF (1 + 2 [COT] = 3).

B.3 MP COSTS: To avoid needless repetition, vehicular movement costs for each terrain type are listed only on the MP Entrance Cost column of the Terrain Chart for each of the five general classifications of vehicles, and alluded to in the written rules only where further clarification may prove helpful.

B.4 HINDRANCE LEVEL: In the course of relating LOS rules, the word "through" will be used only in relation to a LOS which is actually traced *through* that terrain type at an elevation wherein the terrain has some effect. Tracing a LOS *over* a terrain type such that the terrain type has no effect is assumed to be understood and therefore is not continually referred to. Similarly, any wreck, AFV, or LOS Hindrance in a Blind Hex does not affect a LOS over that Blind Hex to a target beyond *unless* the Hindrance is of such a height (SMOKE) to be able to affect a LOS over that hex.

B.5 CONTINUOUS SLOPE: A Continuous Slope is a change in elevation such that, in each hex successively crossed by the LOS, the elevation changes by one level in a continuous gradient. All rules pertaining to same-level LOS also apply to Continuous Slope LOS *[EXC: walls/hedges and AFV/wrecks (D9.4)]* even though the latter term is not mentioned, although Height Advantage is unaffected.



EX: A LOS traced from 15Y6 to U8 is a Continuous Slope LOS and would be affected by any LOS Hindrance in those hexes. A LOS traced from Y6 to V6 is not a Continuous Slope LOS however, because it crosses two hexes (W6, X6) which are at the same elevation.

B.6 INHERENT TERRAIN: Certain terrain depictions (orchard, crag, graveyard, shellholes, etc.) and counter contents of a hex (SMOKE, Bridge, rubble, AFV, wreck) *[EXC: Bypass AFV/Wreck (D9.4)]* identify the entire hex (inclusive of hexsides) as having the characteristics of that terrain type. It is not necessary that a LOS actually cross such a symbol to be affected—mere entrance of the hex (even if only to trace a LOS to or through a vertex of such a hex) or a LOS exactly along one of its hexsides (A6.1) suffices. A LOS traced exactly along such a hexside is considered to have passed through only one such hex—not two—even if that hexside is shared by another LOS Hindrance hex. If the Hindrance DRM of two such hexes differ, the larger of the two Hindrance DRM is used.

B.7 LOS & TERRAIN CHECKS: To make LOS checks easier and to also clearly see terrain depictions without having to shift counters on the board, it is suggested that a duplicate mapboard configuration be laid out adjacent to the boards in play. Duplicate boards may be purchased directly from www.multimanpublishing.com.

B.8 RANDOM DIRECTION: Whenever a dr is called for to determine a Random Direction not involving a Directional Aid Counter already in place, any board is chosen as a reference point and a dr is made. A dr of 1 refers to the hexside containing the grid coordinate, a dr of 2 refers to the next hexside in a clockwise direction, etc.

B.9 ARTIFICIAL TERRAIN: Any counter other than an entrenchment, pillbox, and/or shellhole placed in a hex which affects the TEM of that hex is Artificial Terrain. Any AFV, wreck, SMOKE (or roadblock

© 2000 Multi-Man Publishing, LLC

along the LOS) can increase the TEM of a hex. The TEM of entrenchment, pillbox, or shellhole counters are dependent on MF expended upon entry and therefore are not considered Artificial Terrain.

B.10 LOS HINDRANCE BLOCKAGE: Any combination of SMOKE, vision (weather), and/or terrain LOS Hindrance DRM ≥ +6 blocks that LOS completely.





1. OPEN GROUND

1.1 Open Ground is any hex devoid of other printed terrain features which would affect fire or LOS into that hex. The most common form is any hex covered uniformly in light green such as 2B1. However, there are many other types of Open Ground hexes.

1.11 ROADS: The presence of a road modifies an Open Ground hex for movement purposes through a road hexside only. Otherwise, a road (such as 2W8) devoid of other terrain is considered an Open Ground hex.

1.12 RUNWAY: A runway hex is treated as Open Ground for most purposes with an additional TEM and prohibition against most Fortifications.

1.13 SHELLHOLES: Shellholes are treated as Open Ground only during Defensive First Fire and the RtPh, and only if the unit moving into them paid Open Ground entry costs as opposed to shellhole entry costs.

1.14 HILLS: Any hill hex devoid of other terrain is also an Open Ground hex. 2L4, 2L5, and 2K5 are examples of Open Ground hexes. However, the -1 FFMO DRM does not apply (due to the +1 TEM for Height Advantage) for most fire traced from a lower elevation, and therefore that hex is not considered unmodified Open Ground (A10.531) for that type of Interdiction claim unless the routing unit is crossing a Crest Line through the same hexside crossed by the firer's LOS (see 10.31).

1.15 BRIDGES: A bridge is considered Open Ground (actually a road) if the LOS of the firing/interdicting unit enters the bridge hex only through the road depiction of that bridge.

1.16 HEXSIDES: The presence of a wall, hedge, crest, or cliff hexside in an Open Ground hex does not change it from an Open Ground hex unless the LOS crosses that hexside. A FFNAM DRM and any hexside TEM are cumulative, but any beneficial TEM means the -1 FFMO DRM does not apply, thereby preventing any Interdiction attempt across a hexside TEM.

1.17 ARTIFICIAL TERRAIN: The placement of Artificial Terrain in (or along the LOS to) an Open Ground hex provides cumulative TEM or Hindrance bonuses which negate Interdiction and FFMO claims (even if using Road Movement rate).

EX: A Defensive First Fire attack on a squad making an Assault Move into an Open Ground hex containing a wreck does not receive a negative DRM for FFMO (due to the TEM of the wreck) so it is entitled to a total TEM of +1.

1.2 Open Ground presents no obstruction or Hindrance to LOS, although those hexes which are also hills, or contain non-Open Ground hexsides or Artificial Terrain may, consistent with the rules for those other terrain types.

1.3 The only TEM for Open Ground is the -1 FFMO DRM vs moving Infantry.





2. SHELLHOLES



2.1 Shellholes are represented by brown splotch marks with a dark brown core. 2U6 is an example of a shellhole. Shellholes can be created to a maximum of one per hex during play by placing a shellhole counter in Open Ground, orchard, brush, or grainfield immediately after any Original KIA result during a PFPh/DFPh resolution of a Concentrated HE FFE (or aerial bomb/rocket) attack of ≥ 150mm. Such placement removes all entrenchment counters in that hex (although not necessarily their contents) even if the hex was already a shellhole hex. Shellholes occur only IN a Depression—not at its Crest level.

2.2 A shellhole presents no obstacle or Hindrance to LOS through its hex.

2.3 The conditional TEM of a shellhole is +1. It applies only to Infantry who are not Manhandling a Gun/Boat and is not cumulative with any other possible TEM.

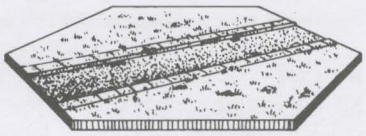
2.4 Infantry may enter a shellhole hex at a cost of one or two MF. If it expends one MF to enter a shellhole hex it may be subject to FFMO (or Interdiction in the RtPh) in that hex during that MPh until pinned. If it expends two MF in entering the hex, or starts the phase therein, it is considered in a shellhole and not subject to FFMO penalties. Cavalry and horse-drawn vehicles must enter at the two MF rate even though they never receive the protective TEM benefits of a shellhole hex. The MF cost to enter a gully shellhole Location is as per 19.4.

EX: On the *RED BARRICADES* map, a squad IN CC3 may move INTO the BB3 gully-shellhole Location at a cost of two MF, or three MF if also using the shellhole TEM. It may continue movement into AA3 at a cost of two MF (Open Ground) or three MF (if using the shellhole TEM).









3. ROADS

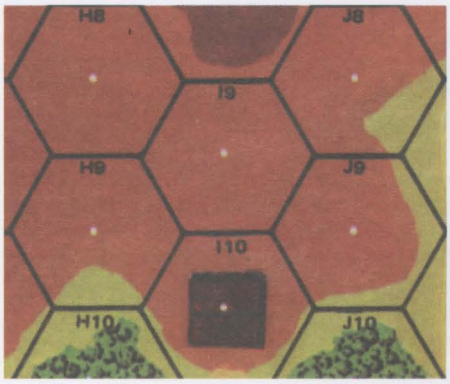
3.1 Roads represent either paved or dirt surfaces. A road represented by a broad brown stripe such as 1Y10 is a dirt road; a broad gray stripe such as 1Z8 is a paved road. A road hex containing both paved and dirt roads is considered a paved road hex, although entry of the hex is based on the type of hexside entered (e.g., 12M4 is a paved road hex but entry of it through the M4-L3 hexside is per a dirt road hexside). Entry of 23Y1 from 4Y10 is per paved road hexside; entry of 4Y10 from 23Y1 is per dirt road hexside.

3.2 Roads are not obstacles or Hindrances to LOS, although other terrain in a road hex may be. A road hex devoid of other terrain features is considered Open Ground for all purposes except movement across the road hexside.

© 2000 Multi-Man Publishing, LLC

3.3 The other terrain in a road hex determines any TEM of that hex. However, if a unit moves into a hex via the road rate it would be subject to Interdiction/FFMO (in the case of Infantry) instead of the TEM of the other terrain in the hex unless the LOS was traced through other non-Open Ground terrain between the firer and target points. The possible target points are increased when firing at an Infantry unit using the road movement rate in a combination road/Non-Open Ground terrain hex (as per A4.132).

3.4 Infantry may cross any road hexside at a cost of one MF (two MF if move is to higher elevation). Infantry, Cavalry, and Horse-Drawn units which cross only road hexsides throughout their MPh are entitled to one extra MF provided they do not encounter mines, burning wrecks, Wire, mud, rubble, roadblocks, debris (O1.3), Panji Covered hexsides, SMOKE, or Deep Snow in those road hexes and are not pushing Guns (C10.3).



EX: Barring Bypass, hex 3I10 costs Infantry two MF to enter from H9, I9, or J9. It costs four MF to enter from H10 or J10, due to a move to higher elevation. The road leading into the hex from off-board negates the movement cost of the building at the mover's option and allows entrance at a cost of two MF, but if it does not pay the normal four MF cost of entering a building at a higher elevation, it would be subject to FFMO penalties (A4.132) to any Defensive First Fire that can be traced to the road depiction crossing that hexside (3.3).

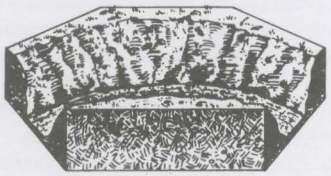
3.41 A vehicle may cross any road hexside at a cost of $^1/_2$ MP *[EXC: Graveyard-Roads (18.41)/BU (D5.2)/Snow (E3.724)/in-Convoy (E11.2)]*. The four MP surcharge for a vehicle entering higher terrain is halved to two MP while crossing a road hexside.

3.42 The one MP penalty for entering a hex already containing a vehicle/wreck is doubled to two MP per vehicle/wreck if entering that hex across a road hexside while using the road movement rate.

3.43 ROAD-NEGATING TERRAIN: Infantry may not claim the extra-MF road bonus during a MPh in which they expend extra MF to derive the protection of shellholes/woods—nor may they claim it if they choose the non-Open-Ground cover of an orchard in preference to the Open Ground of a road. A road covered by rubble/debris (O1.3) is treated as non-existent *[EXC: for Street Fighting (A11.8) purposes; if Cleared (24.71)]*. Therefore, Dash (A4.63), road bonus (3.4) and the $^1/_2$-MP road rate are not allowed in a road hex covered by rubble or debris except via TB.

3.5 Hidden mines *[EXC: in rubble/debris]* and entrenchments may not be placed in a paved road hex due to the urban nature of the terrain.

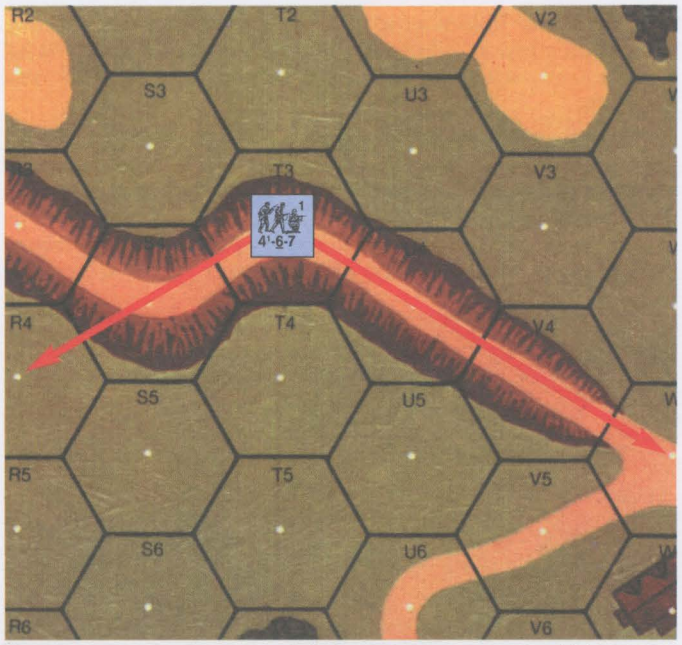




4. SUNKEN ROAD

4.1 Sunken Roads are relatively narrow slits carved out of natural depressions in the ground, and have steeper sides than a gully. A hex such as 14T3 containing a road symbol bordered on two sides by two-tone brown contour lines (with the darker contours on the outside) is a Sunken Road hex.

4.2 A Sunken Road is a -1 level Depression hex; i.e., a unit in it is one level lower than it would be if the Sunken Road were not present. A unit IN a Sunken Road cannot see any other Depression hex unless it can trace a LOS through other Sunken Road hexes clear of the dark brown contour lines of those hexes.



EX: The 4-6-7 IN 14T3 can see only the six adjacent hexes in addition to V4, W5, and R4. R4 can be seen because it is the first ground-level hex in its LOS which is not blocked by a previous ground level depiction.

4.3 Provided a LOS into it exists, a Sunken Road is considered Open Ground for TEM and Interdiction purposes.

4.4 Movement costs across a Sunken Road hexside are identical to those for other roads. Only the entrance costs of a Sunken Road hex through a non-road hexside differ.

4.41 Infantry/Cavalry entering a Sunken Road hex through a non-road hexside do so at a cost of two MF. There is no cost for leaving a Sunken Road hex other than the normal penalties (10.4) for moving to higher elevation.

4.42 Vehicles may not enter or leave a Sunken Road hex except across a road hexside. All MP penalties for entering a hex containing a wreck/vehicle, or for changing a VCA across a non-road hexside, are doubled while in a Sunken Road hex.

EX: It costs a CE tank $4^1/_2$ MP to enter a wreck hex while on a Sunken Road (1×2 [3.42]) $\times 2$ [4.42] + $^1/_2 = 4^1/_2$.

4.43 SUNKEN LANE: A Sunken Road can be treated as a Sunken Lane if so designated by SSR. All Sunken Road rules also apply to a Sunken Lane unless specified otherwise. The rules for a Sunken Lane are the same as those for One-Lane Bridges (6.43 -.431) except that Wreck Removal (D10.42) does not apply in a Sunken Lane.

4.5 Entrenchments cannot be placed in a Sunken Road hex. See also 3.5.





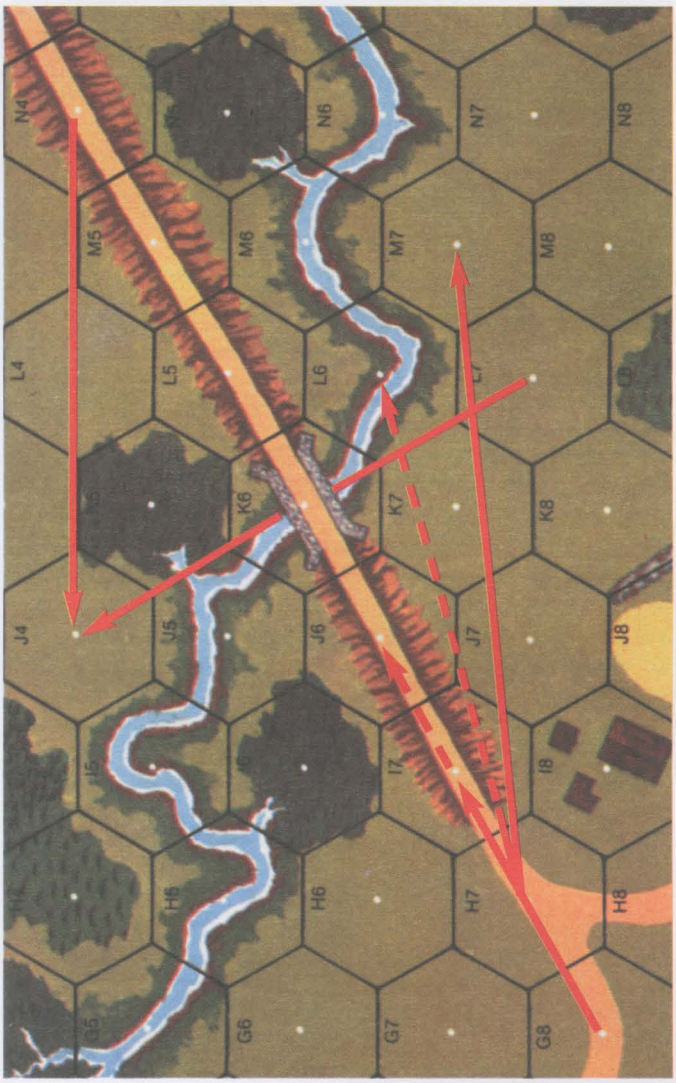
5. ELEVATED ROAD

5.1 Elevated Roads are located on man-made mounds, usually constructed for purposes of flood control. Any hex such as 13Y8 or 13Y7 containing a road symbol bordered on two sides by two-tone brown contour lines (with the darker contour lines on the inside) is an Elevated Road hex.

© 2000 Multi-Man Publishing, LLC

5.2 An Elevated Road is a one level obstacle (inclusive of the contour lines which border it) to LOS. Any unit on an Elevated Road on board 13 is at level 1 and subject to the same LOS restrictions as a unit on a level 1 hill.

5.21 The contour lines forming the edge of the Elevated Road symbol are the equivalent of hill Crest Lines. Even so, vehicles cannot claim HD status on an Elevated Road hex. A unit at a lower level may maintain a LOS through an Elevated Road hex to another unit on the same level as the viewer only if its LOS does not cross any part of the brown contour lines of that Elevated Road hex or of the road itself.



EX: The solid red lines show that 13H7 can see M7, but the dashed lines indicate that H7 cannot see a Crest unit in L6, because the H7-L6 LOS actually crosses the contour lines of the Elevated Road hex. An unobstructed LOS exists beneath the level 1 obstruction of the bridge between L7 and J4.

5.22 Due to the Crest effects of an Elevated Road hex, a unit on an Elevated Road cannot see a unit at a lower level if it must trace its LOS through the brown contour lines of another Elevated Road hex.

EX: Using the previous illustration, we find that a unit on 13G8 can see I7, but not J6. A unit in N4 can see J4 even though the LOS does cross the Elevated Road hex M5 because it does not cross the brown contour lines of that Elevated Road hex.

5.3 An Elevated Road is considered Open Ground for TEM and Interdiction purposes, provided the Height Advantage TEM does not apply. The +1 TEM for Height Advantage can apply to Direct Fire from a lower elevation, thus allowing rout through the hex free of Interdiction and movement free of the FFMO DRM. However, the Height Advantage TEM does not apply to moving units during Defensive First Fire or Interdiction, if in entering the Elevated Road the moving unit crosses a Crest Line through the same hexside that is intersected by the firer's LOS (10.31).

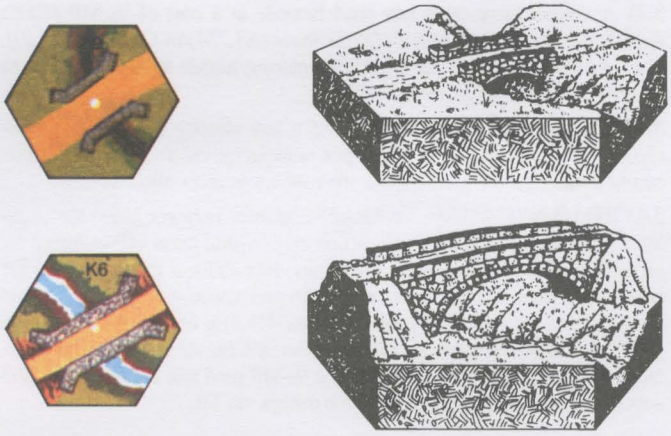
EX: Again using our previous illustration, we find that a broken unit in 13J6 can be Interdicted by a unit in I8 as the broken unit routs from J7. A unit in J6 making an Assault Move to I7 while being fired on from K8 receives only a +1 DRM (for Height Advantage) because the FFMO DRM does not apply.

5.4 Movement costs across an Elevated Road hexside are identical to those of other roads. Only entrance of an Elevated Road hex through a non-road hexside differs.

5.41 Infantry/Cavalry may enter an Elevated Road hex through a non-road hexside at a cost of two MF (one MF doubled to two for a move to higher elevation) unless the move gains two levels of height, in which case an Abrupt Elevation Change (10.5) applies.

5.42 Tracked vehicles may enter or leave an Elevated Road hex through a non-road hexside at a MP cost equal to crossing an Open Ground hill Crest hexside. Vehicular entrance or exit of the Elevated Road hex directly to/from a Depression would amount to crossing an Abrupt Elevation hexside (see 10.51). Motorcycles which enter/leave an Elevated Road hex through a non-road hexside can do so only by chancing a Wreck Check dr (D15.46) or being pushed. All MP penalties for entering a hex containing a wreck/vehicle on a road (two MP), or for changing a VCA across a non-road hexside, are doubled while in an Elevated Road hex.

5.5 Entrenchments may not be placed in an Elevated Road hex. See also 3.5.



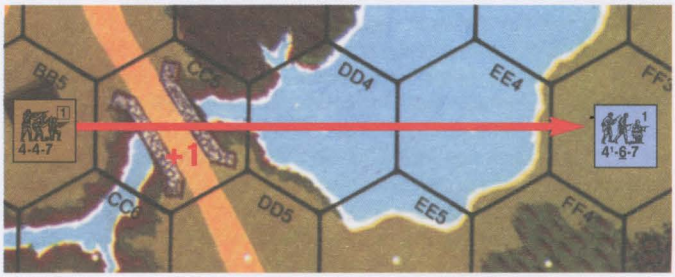
6. BRIDGES

6.1 Bridges are man-made structures used to cross Depressions or water. All bridges depicted on the map (such as 5Z9 and 13K6) are two-lane bridges of stone[1] construction capable of being used by vehicles. In addition, there are numerous bridge section counters which can be used in combination to bridge multi-hex Water Obstacles or Depressions. The $^{5}/_{8}$" bridge counters may be used by any unit; see 6.44 for $^{1}/_{2}$" bridge counters. Bridges usable by vehicles always connect directly to any adjacent road to which the bridge depiction points, and are considered an extension of that road. Units on bridges (other than pontoon bridges) are considered in a separate Location from other units in that hex not on the bridge.

6.2 All bridges block LOS between units on the bridge and units beneath the bridge. Otherwise, a bridge does not block LOS. However, a non-pontoon bridge does Hinder any LOS drawn through it between units which are at the same level as the Bridge or units only one of which is below the level of the Bridge (unless that LOS is traced only through the road depiction of the Bridge). Non-pontoon bridges are always at the same level as

© 2000 Multi-Man Publishing, LLC

the road they connect to. Bridge counters are Inherent Terrain (B.6) but LOS into/through its hex does not incur the Bridge Hindrance/TEM if it crosses only road hexsides (exclusive of vertices) of that hex.



EX: The bridge at 13CC5 is at ground level; a unit in BB5 can fire through the bridge to FF3 by adding a +1 Hindrance DRM to its IFT DR. The bridge at 13K6 (see 5.21 illustration) is at level one; a unit in J4 can fire beneath the bridge at K6 to L7 with no Bridge Hindrance DRM.

6.3 Direct Fire (and Direct Fire Interdiction) against a target on a bridge which is traced only through the road depiction of that bridge hex (or against any pontoon bridge, regardless of LOF) is considered to take place in Open Ground (1.15). Of course, fire traced through a Hindrance hex elsewhere along the LOS still negates any FFMO or Interdiction claim in the bridge hex. See 9.33 for Elevation Effects.

6.31 Direct Fire against targets on a non-pontoon bridge (not against the bridge itself) which enters the bridge other than across the road depiction (or road hexside of a Bridge counter's hex; 6.2) has a TEM of +1 regardless of bridge construction type.

6.32 Indirect Fire against a non-pontoon bridge/targets on or beneath that bridge has a TEM of +1 regardless of the LOF due to the separation of the bridge from the obstacle it crosses—thus reducing the effects of near misses and negating Interdiction.

6.33 Only HE attacks can destroy a bridge. Direct Fire attacks use the Infantry Target Type To Hit Table. If using the Vehicle Target Type for Direct Fire vs a vehicle, there can be no effect vs the bridge. The same Original DR used on the IFT to resolve attacks against units on the bridge is used against the bridge itself by adding a +3 TEM for a stone bridge, or a +2 TEM for a wooden bridge, or a +1 TEM for a pontoon bridge (+2 TEM if underwater) *[EXC: Set DC; A23.71]*. This TEM is applicable only to the bridge itself—not to the units on it. Only a Final KIA result will destroy the bridge in the target hex. All units/equipment on or beneath a destroyed bridge are eliminated.

EX: A German 88mm Gun fires at a squad on a wooden bridge through a non-road hexside at a range of 12 hexes. Based on its Modified TH# of 7, it will need an Original DR ≤ 6 (6 + 1 [TEM DRM]) to hit. Having secured the hit, it now rolls on the 16 column of the IFT with no DRM vs the squad, but a +2 DRM vs the bridge itself. An Original IFT DR of 3 eliminates the squad but has no effect vs the bridge.

EX: A 120mm OBA FFE is being resolved vs a stone bridge hex containing a squad. There is a +1 DRM to the IFT DR vs the squad (for Indirect Fire; 6.32) and a +4 DRM to the same IFT DR vs the bridge itself (+1 [Indirect Fire] +3 [stone bridge] = +4).



6.331 Whenever a non-pontoon bridge is destroyed, the bridge is replaced by a rubble counter at the level below it (unless in a deep or flooded water hex). If in a deep or flooded water hex, the bridge counter is simply removed (or if depicted on the mapboard, covered by a destroyed bridge counter).

6.332 A destroyed pontoon bridge section is simply removed.



6.4 Entrance of/exit from a bridge Location can occur only by crossing a road hexside on that bridge *[EXC: by Scaling (23.424) and using a Climbing counter in the bridge hex]*. A unit beneath a bridge is depicted by placement beneath a bridge counter and is at the level being spanned by the bridge (usually -1 for a Depression or Water Obstacle).



6.41 PONTOON: Only pontoon bridges, which are always at water level, permit exit/entry of a bridge through a non-road hexside without Scaling, Swimming, Fording, or Boating. Infantry may enter/exit a pontoon bridge as if it were Open Ground. Units may not move beneath a pontoon bridge. Pontoon bridge $^5/_8$" counters are considered One-Lane vehicular bridges with unlimited weight capacity.

6.42 COLLAPSE: Wooden bridges may collapse under loads > their current weight limit. The first time the total weight of vehicles/wrecks on a wooden bridge (regardless of length) exceeds ten tons, a Bridge Collapse DR must be made. The DR is modified by +1 for every five-ton increment or fraction thereof in excess of the current bridge weight limit. If the Final Bridge Collapse DR is ≥ 12, the entire bridge collapses with the elimination of all counters on and beneath it. Rubble is placed as per 6.331. If the Final Bridge Collapse DR is < 12, the bridge remains intact and its new current weight limit is the current weight just checked. This new weight limit is marked on a side record. The bridge does not have to check for collapse again until this new current weight limit is exceeded.

6.43 WIDTH: All MP penalties for entering a hex containing a wreck/vehicle on a road, or for changing a VCA across a non-road hexside, are doubled while on a bridge.



6.431 ONE-LANE: Once a vehicle moves across a One-Lane bridge in a direction opposite that used by any vehicle on that bridge during that Player Turn, no further vehicular movement is allowed onto that bridge in either direction during that Player Turn. The direction of vehicular traffic on a One-Lane bridge thus far in a Player Turn can be marked with a One-Lane counter. A One-Lane bridge is blocked to vehicular traffic by the presence of a wreck or vehicle (not motorcycles) *[EXC: Infantry/Cavalry, vehicles with a +2 size modifier, and motorcycles are never blocked]*. Normal Wreck Removal rules (D10.4) apply. An unhooked Gun (on a $^5/_8$" counter) on a One-Lane bridge would be eliminated by an AFV entering its hex, and the AFV would have to check for Bog. While on a One-Lane bridge, a VCA *[EXC: Motorcycles]* must always contain an adjacent road hex. This allows changing the VCA center hexspine only from one side of the road to the other (i.e., between vertices of the same road hexside).



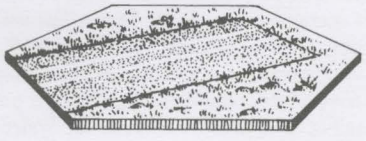
6.44 FOOT BRIDGES: A foot bridge is a $^1/_2$" pontoon bridge counter. Only Infantry, their portaged equipment, and unmounted horses/cycles may cross a foot bridge. The stacking capacity of a foot bridge is one squad-equivalent per hex.

6.45 UNDERWATER: Occasionally, pontoon bridges may be defined as being laid below the surface of the water. Such bridges have a +2 TEM for purposes of bridge destruction instead of +1 TEM (6.33), double road movement costs, and disallow Road bonus (3.4).

6.5 BURNING: Stone Bridges do not burn.[2] A bridge defined by SSR as wooden can be burned as if it were a stone building.

6.6 Entrenchments/mines *[EXC: unhidden AT Mines; 28.53]* cannot be placed on a bridge.





7. RUNWAYS

The following rules apply only to hard surface runways or SSR-designated wide city boulevards.[3]

7.1 Any hex containing a gray road surface crossed by two parallel white lines (such as 14M6) is a runway hex.

© 2000 Multi-Man Publishing, LLC

7.2 Runways are neither an obstacle nor Hindrance to LOS.

7.3 Any unarmored unit in a runway hex receives a -1 TEM to all IFT fire resolved against it regardless of fire phase. This TEM is in addition to any applicable DRM for FFMO/FFNAM and is cumulative with other (including hexside) TEM. A runway hex is considered Open Ground for all Interdiction purposes (barring the presence of any Artificial Terrain).

7.4 Movement costs for entering a runway hex are identical to that of a paved road if entered through a runway hexside; identical to that of Open Ground if entered through a non-runway hexside. Streetfighting and Dash are NA "across" a runway or boulevard.

7.5 The only Fortifications allowed in a runway hex are Wire, roadblocks, and/or unhidden AT Mines (28.53).

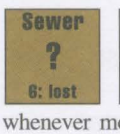
8. SEWERS & TUNNELS

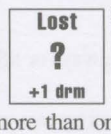
8.1 SEWERS: Sewers represent large drainage systems found beneath ground level in major cities and create new Locations below the ground level of city boards. Sewers are not usable unless specified by SSR and allow Infantry to move beneath the surface of the playing board free from the effects of enemy presence or fire at higher levels. Entrance to and exit from the sewer system are limited to Manhole Locations. The ground level Location of any hex marked with a black circle (EX: 1AA5, 21P3) or any paved road hex which intersects with any other road such that at least three hexsides of that hex are crossed by a road (EX: 1Y9) are Manhole Locations *[EXC: on Deluxe ASL boards only hexes marked with a black circle contain Sewer Locations]*.

8.2 SEWER LOCATION: A Sewer Location exists beneath each Manhole Location and is a different Location for all purposes. A unit in a Sewer Location is at a level one lower than the Manhole Location in that hex and out of LOS of all enemy units other than those occupying a Sewer Location in the same or an adjacent hex, and/or by any unit directly above it in a Manhole Location which has discovered it via a Sewer Emergence dr (8.42) *earlier that Player Turn*. Reciprocity (A6.5) applies. A Sewer Location may never be overstacked.

8.3 ATTACKS: A unit in a Sewer can only be attacked by a unit with a LOS to it. All fire vs a unit in a sewer is PBF and subject to the -2 Hazardous Movement DRM regardless of fire phase. A Sewer Location has no TEM. Neither a vehicle nor ordnance/IFE/OBA may fire into a sewer.

8.4 SEWER MOVEMENT: A unit may never start play already in a sewer. Only Good Order Infantry (or a dummy stack) may enter a Sewer system from a Manhole Location and only at the start of their MPh and do so at the cost of all their MF. Furthermore, only those units granted Sewer Movement capability by SSR, or who are accompanied by a leader who passes a 4TC at the start of their MPh while in a Manhole Location, may enter the Sewer. The latter method of entrance is available only when a SSR has specified sewers as usable and units of either side not granted the capability wish to attempt entrance. Units in a Sewer may not portage more than their IPC nor push a Gun. Sewer movement cannot be used to move beneath any Water Obstacle hex.





8.41 Sewer movement must start in or beneath a Manhole Location and end in a Sewer Location no farther than three hexes away. Sewer movement must be performed as one combined stack whenever more than one unit starting their MPh in the same Location wants to use Sewer Movement, and must be declared as Sewer Movement and symbolized by placement of a "Sewer ?" counter above the moving units. A unit using Sewer Movement is always concealed by being placed beneath a "Sewer ?" counter, even if not concealed prior to entry of the Sewer. However, prior to actual movement, a dr (Δ) is made to determine who moves the stack; on a dr of 6-7, the units become lost and must move to an allowable Sewer Location designated by the DEFENDER, and the "Sewer ?" counter is flipped to the "Lost ?" side. This dr is repeated at the start of the stack's MPh during every friendly MPh that the units remain in the sewer system, but with a +1 drm if the units in question are currently lost. Whenever a lost stack's Final dr is ≤ 5, the "Lost?" counter is flipped back to the "Sewer ?" side and the ATTACKER moves the stack that turn. Units in a Sewer must move during their MPh; they cannot remain motionless, although they can return to a Sewer Location occupied during a previous turn. If they are unable to move to a new Sewer Location, they are eliminated. Units in a sewer may use the APh only to advance vertically out of the sewer system *[EXC: 8.44]* and into the Manhole Location—even if enemy occupied *[EXC: Fortified Building; 23.922]*. If the non-sewer Location left that turn was Encircled, units become pinned and CX upon advancing out.

8.42 Upon ending their MPh, units in a Sewer Location must make a dr on the Sewer Emergence Chart and perform the result for the entire stack.

SEWER EMERGENCE CHART Δ

dr	Action Required
≤ 4	May emerge concealed at owner's option during the APh; not subject to Defensive Fire in the interim.
5-6	Cannot emerge during this Game Turn; not subject to Defensive Fire in interim.
≥ 7	Discovered. Cannot emerge during this Game Turn; subject only to Defensive Fire from any opposing Infantry in Manhole Location but without benefit of concealment (although concealment is not lost).

The following cumulative drm apply to the Sewer Emergence dr:

-1	Manhole Location is occupied by other friendly unit(s)
-1	Manhole is in a building Location unoccupied by enemy units or in a non-building Location not in LOS of enemy or all such LOS is Hindered by ≥ +2
+1	Sewer units are currently lost
+1	Per enemy Good Order MMC* in Manhole Location
+1	Enemy non-dummy unit(s)* in adjacent Sewer Location

* Any such concealed unit must be momentarily revealed (and hidden units placed on board) for this drm to apply, but the DEFENDER may do so at his own option after the dr is made.

8.43 A unit in a sewer can attack units in the Manhole Location above it only during the AFPh after having been "discovered" by a Sewer Emergence dr ≥ 7.

8.44 APh/CCPh: Opposing units in the sewer system may not enter an enemy occupied Sewer Location during the MPh, and may end their respective MPh ADJACENT only if they are both beneath Manhole Locations in adjacent hexes. Should this situation occur, fire attacks between the ADJACENT units are allowed as normal during the DFPh and AFPh, and the APh can be used by the ATTACKER to move either to the Manhole Location above it (if allowed by the Sewer Emergence dr) or to enter into CC with the adjacent sewer unit(s). Since units in a sewer are always concealed (8.41) they are never locked in Melee, and during the next MPh the ATTACKER must move to a new Sewer Location.

8.45 BROKEN & BERSERK: Any unit which becomes broken or berserk while in a sewer is eliminated. An already broken or berserk unit may never enter a Sewer Location. Similarly, because units in a Manhole Location are usually unaware of units in a sewer beneath them, they ignore them for purposes of rout or charge.

8.5 No Fortifications are allowed in a sewer. A Manhole Location covered by rubble or Blaze is treated as if no Manhole exists therein, but the Sewer Location beneath it still exists. There is no Sewer Emergence dr if units in the sewer end their MPh in such a Sewer Location. Should a DC attack in a Sewer Location result in rubble (treating the Sewer Location

© 2000 Multi-Man Publishing, LLC

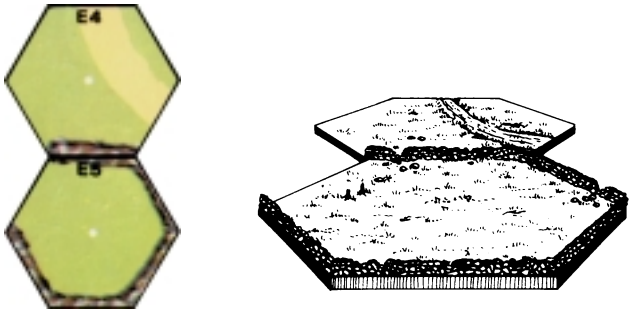
as if a stone building), all units/SW therein are eliminated. Mark that hex with a rubble counter beneath a sewer counter; no Sewer Movement is allowed into that hex, and the Manhole Location is unaffected.

8.6 TUNNELS: A tunnel exists only by SSR or DYO, or if a player forfeits a Fortified Building Location (23.9) capability in order to have access to a tunnel *[EXC: a Fortified Building Location that is specified by building/hex coordinate cannot be forfeited; see also G1.632 for Japanese pillboxes]*. Tunnels are not dug during play; they must be secretly recorded prior to setup. A tunnel consists of two entrance Locations which must be within three hexes of each other. The entrances must be in separate ground level building, pillbox, brush, or woods Locations. The entrance may (if so recorded) lead into an OB-given entrenchment. The tunnel may not pass beneath any hex whose base elevation differs from that of its entrance Locations (which must both be at the same elevation) or beneath any Water Obstacle hex. See G11.93 for Cave Complexes. A unit in a tunnel never has LOS to any enemy units and is never subject to any form of attack.

8.61 MOVEMENT: Only Good-Order/dummy Infantry of the owning side may enter a tunnel during the MPh. A unit may move into a tunnel from one entrance Location at the start of its MPh by being placed beneath a "Sewer?" counter in the *opposite* entrance hex at the cost of all its MF, and must advance out that entrance concealed during the subsequent APh (even if that Location is occupied by enemy units and is Fortified but would instead be eliminated if the opposite entrance were an enemy-occupied pillbox). A tunnel may never be overstacked, and units in a tunnel may not portage more than their IPC nor push a Gun. If the Location left was Encircled, units become pinned and CX upon advancing out.

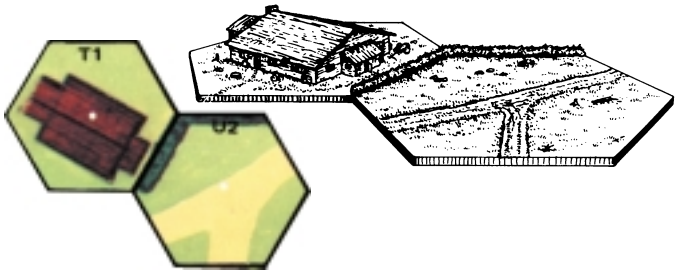
8.62 RtPh: Broken units may enter a tunnel during their RtPh and use it to rout, provided they exit it in the same RtPh. Routing units must begin their rout in one tunnel entrance Location and end it in the opposite Location. Routing units are immune to Interdiction while in a tunnel and may use it to move adjacent to or towards a Known enemy unit, provided that when they emerge they are no closer to any armed enemy unit that was Known when they entered the tunnel, and that they don't become ADJACENT to a Known, unbroken armed enemy unit. Routing units are not concealed when they emerge from a tunnel.

8.63 DESTRUCTION: Any tunnel entrance may be destroyed by any Good Order Infantry unit in the same Location without a Known enemy unit at the end of the CCPh provided the entrance/exit has been used in the LOS of that unit and subsequently discovered using the Recovery procedures of A4.44. The presence of an entrance/exit cannot be revealed by Searching.



9. WALLS & HEDGES

9.1 A wall represents a stone fence varying in height between one and two meters, and conforms to hexsides rather than the interior of a hex. Any hexside that overprints a thick gray line such as 2E4-E5 is a wall hexside. A hedge represents hedges one to two meters high and also conforms to hexsides. Any hexside containing a thick green line such as 2T1-U2 is a hedge hexside. The thick terrain depiction, as well as the hexside itself (inclusive of vertices), represents the wall/hedge and will affect any LOS through it, except for obvious breaks in the depiction such as 6W9-X9. A wall/hedge cannot be eliminated.





EX: An attack from 6Y6 to Z7 is affected by the hedge hexside Y7-Z7 even though the hedge depiction does not actually extend to the vertex.

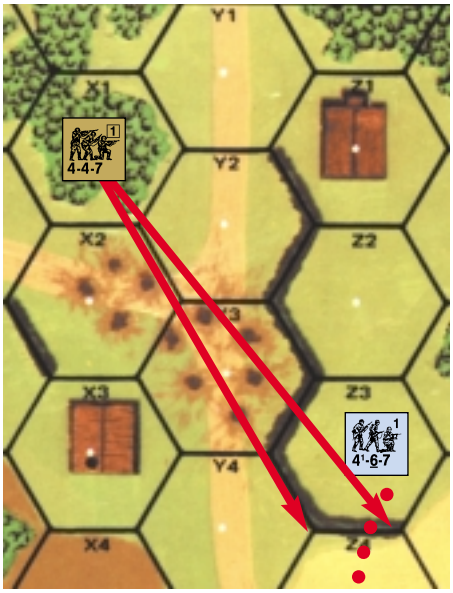
9.2 LOS: Wall and hedge hexsides are Half-Level obstacles to same-level LOS (A6.21) unless the wall/hedge hexside is part of the viewing/target hex. A wall/hedge hexside never blocks LOS to any portion of its own hex even in the case of Snap Shots or vs Bypassing units on the opposite side of that hex *[EXC: 9.21]*. A wall/hedge lying lengthwise (on a hexspine) exactly along a LOS is a Half-Level LOS obstacle only if the wall/hedge hexspine is not touching the viewing or target hex, or if touching *one* of the viewing/target hexes and the vertex opposite of the viewing/target hex has walls/hedges on *all* of its three hexspines.

EX: In the 9.1 illustration, the 4-4-7 in 6Z9 can attack the 8-3-8 in X6 with a +2 DRM for the wall because both intervening wall/hedge hexspines are part of either the firing or target hex and neither of them has three wall/hedge hexspines on the vertex that is part of neither Z9 nor X6. If Y8-Y9 were a hedge hexside, no LOS would exist since the Y8-Y9-Z8 vertex would have wall/hedge hexsides on all three hexspines. If a German unit were in Y8, both it and the 4-4-7 would qualify for the +1 TEM of the Z8-Y9 hexspine when firing at each other. If the Z8-Y9 hedge did not exist (or were instead at Y8-Y9), the LOS from Z9 to X6 would be blocked at the Y8-Y9-Z8 vertex.

9.21 ENTRENCHMENTS: A unit in an entrenchment cannot see (or be seen) across a same-level wall/hedge hexside/hexspine to (or from) any non-adjacent same-level or lower Location—although an elevation advan-

© 2000 Multi-Man Publishing, LLC

tage of at least a half-level over the Entrenchment does allow such LOS. LOS is reciprocal. If a viewer would have LOS to any non-entrenched units in such a Location, it also has LOS to any entrenchments in that Location even though it may not have LOS to units beneath that entrenchment.



EX: The 4-4-7 can make a Snap Shot at the unit entering hex 3Z3 because a "hedge hexside never blocks LOS to any portion of its own hex". Now assume that Z3 is a building hex and that a vehicle in Bypass exists at CAFP Z3-Z4-AA4. Provided the LOS is not blocked by the building, the 4-4-7 can trace a LOS to that vertex. The same could not be said for a Bypass vehicle in Z4 at CAFP Z4-Z3-AA4 (assuming Z4 was a woods/building hex allowing such Bypass) because it is in a different hex and thus blocked by the Z3-Y3 hedge even though the target points are essentially the same (C.5).

EX: If the 4-6-7 in 3Z3 were beneath a foxhole, no LOS would exist between the 4-6-7 and the 4-4-7 in X1, but the 4-4-7 would still have LOS to the foxhole, thus revealing it if hidden.

9.3 TEM: The TEM of a wall is +2; the TEM of a hedge is +1. Fire traced through a wall/hedge hexside or hexspine may be subject to a TEM for that wall/hedge if the target is in the Location formed by that hexside/hexspine. If the LOS crosses the wall/hedge hexside through a road depiction (such as 6W9-X9) the wall/hedge TEM can only apply if the target is a non-moving unit. PRC *[EXC: Motorcyclists]* never receive a TEM for a wall/hedge. The wall/hedge TEM is NA for DC attacks *[EXC: if thrown across a wall/hedge hexside, the TEM applies to both the target and thrower's Location; A23.6]*.

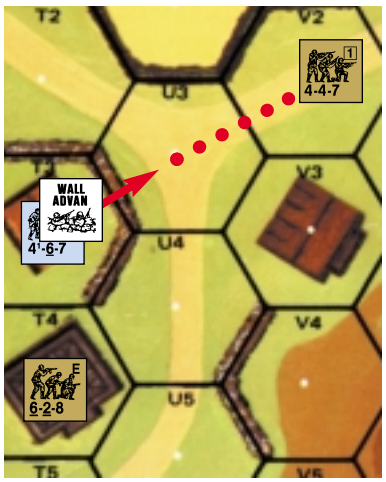
9.31 The wall/hedge TEM is not cumulative with positive TEM of other terrain in that hex, although it is cumulative with LOS Hindrances and SMOKE. A target unit claiming WA (9.32) does not receive in-hex TEM *[EXC: Runway (7.3); Air Bursts (9.34)]*, but receives wall/hedge TEM if applicable *[EXC: it may elect instead to receive appropriate TEM for Emplacement or for a friendly AFV with which it shares WA (D9.3)]*. A target unit not claiming WA receives only in-hex TEM, but may instead use wall/hex TEM vs enemy units which do not have WA over the hexside. In any case the wall/hedge TEM applies only as per 9.3. In order for a wall to justify firing HEAT at Infantry/Cavalry (C8.31), those units must be claiming-WA/receiving-Wall-TEM. The amount of Residual FP left by an attack that crosses a wall/hedge hexside is reduced by that hexside TEM (A8.26) if hexside TEM could have been claimed against at least one firing unit—even if the moving unit is not claiming hexside TEM. See 9.36 and D4. for wall-TEM/HD-status for vehicles.



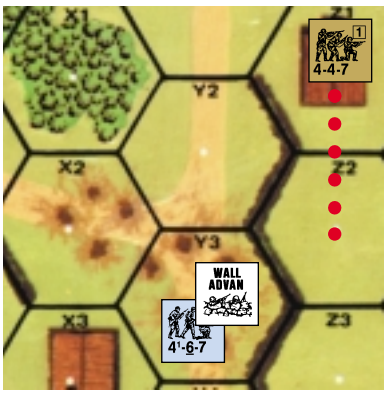
9.32 WALL ADVANTAGE (WA): A unit may claim WA over a same level wall/hedge hexside if it is an armed, unbroken ground level unit which is not: a vehicle eligible to receive in-hex TEM of ≥ 1 *[EXC: Height Advantage (10.31)/Cactus Patch (14.7)/Olive Grove (14.8)]*, in Column/Convoy, in a Fortified building possessing a Gun, on a bridge *[EXC: over a Roadblock]*, in a pillbox/cave, beneath an entrenchment counter, above Wire/Panji or in a Location containing a non-hidden, non-prisoner enemy *[EXC: "broken" vehicle (A12.1)]* unit. A unit in Bypass may claim WA only over the hexside it straddles and the two hexsides of its hex that join that hexside. Units in a Location do not need to share the same WA status, but are still considered in the same Location for all purposes. Broken or unarmed units may (must if 9.323 applies) claim WA if other units in the same Location claim WA.

A unit claiming WA is still considered occupying any obstacle/terrain as it would if not claiming WA for all purposes (e.g., Concealment Terrain, firing backblast weapon from building) *[EXC: 9.31]*. Lack of WA does not prevent LOS through a wall/hedge hexside of the viewer's hex *[EXC: Entrenchments (9.21); bocage (9.521)]*.

9.321 A unit always has WA over all possible (as per 9.32) wall/hedge hexsides of its hex; if it forfeits/is-denied WA over one of those wall/hedge hexsides it cannot claim WA over any other hexsides *[EXC: in Deluxe ASL, WA is claimed/retained/lost per hexside—not hex]*. Adjacent units of opposing sides can never both claim WA over a shared wall/hedge at the same time; thus one of them claiming WA over the shared hexside prevents the other from claiming WA over any hexsides at all *[EXC: Deluxe ASL]*.



EX: The 4-6-7 occupies 3T3 before the 4-4-7 moves ADJACENT to it in U3. If the 4-6-7 First Fires at the moving 4-4-7 as the latter enters U3 it may do so using FFMO and no wall TEM because (vs an adjacent firer) the Wall TEM does not apply to a unit entering a hex if that firer qualifies for Wall Advantage. Assuming the 4-4-7 survives that attack, its AFPh attack vs the 4-6-7 will be affected by the +2 TEM of the wall because the German retains the Wall Advantage, but the hexside TEM of a target hex is not cumulative with that of the other terrain in the same hex so the building +2 TEM does not also apply. However, if T3 could be fired on along a LOS that did not cross the wall hexside (e.g., from T4), the German might choose to use the building +2 TEM rather than the non-applicable wall +2 TEM. If he does (or if for any reason he chooses the building TEM rather than the wall TEM), the German must first lose the "Wall Advan" counter (9.31) and, if the Russian unit is adjacent, the "Wall Advan" counter automatically shifts across the wall hexside to the ADJACENT Good Order 4-4-7. On the other hand, if the 4-6-7 chooses to keep Wall Advantage it would be considered in Open Ground to any fire from the 6-2-8. A unit in V4 may not claim Wall Advantage because it is at a higher elevation than the wall hexside (9.35).



EX: The 4-6-7 in 3Y3 has Wall Advantage over the 4-4-7 that has just entered Z2. If another German unit enters Y2 or Y3 it will also qualify for Wall Advantage, because the Russian cannot claim the hedge TEM of either common hexside (since it does not have Wall Advantage over it). The Russian unit cannot "steal" Wall Advantage from either unit as long as the other retains Wall Advantage in the adjacent hex. Because the 4-6-7 has claimed Wall Advantage, it cannot also claim Shellhole TEM without first losing the Wall Advantage. If the 4-6-7 fires as a FG with another unit in X2 at the 4-4-7 in Z2, the hedge TEM would apply (A.5).

9.322 A unit claiming WA must always be marked with a "Wall Advan" counter. Placing a "Wall Advan" counter and claiming WA are synonymous, as are removing a "Wall Advan" counter and forfeiting WA *[EXC: 9.323]*. A Pinned, TI, or Immobile unit cannot voluntarily claim or forfeit WA. *Claiming* WA is voluntary *[EXC: 9.323]*, and can be done by a unit at five times: during its setup; at the *end* of any RPh (step 1.32B of ASOP, ATTACKER first); during its MPh/APh (either as part of, or before/after MF/MP expenditures); when losing HIP status; whenever all enemy units lose/forfeit WA over shared wall/hedge hexsides. WA must be forfeited

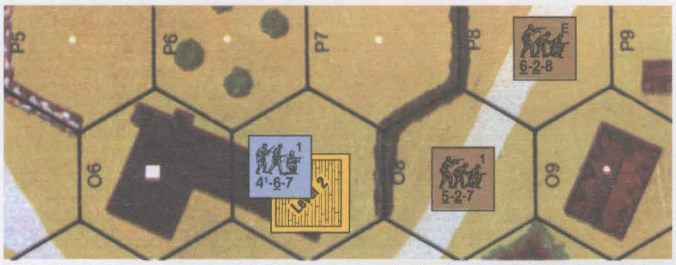
© 2000 Multi-Man Publishing, LLC

immediately if a unit no longer fulfills 9.32 and may be forfeited at any other time. Claiming/forfeiting WA is *not* considered an action for RPh limits (A3.1) or concealment loss (A12.141). Claiming/forfeiting WA can never be done between an enemy action being declared and that action being completed, e.g., fire vs the unit claiming WA.

9.323 MANDATORY WA: A unit unable to claim in-hex TEM of at least +1 must claim WA as soon as possible (even if having in-hex Hindrance), and cannot voluntarily forfeit it. Neither Emplacement, Gunshield, Height Advantage, nor a friendly AFV with WA are considered to provide an in-hex TEM for this purpose. A "Wall Advan" counter is not necessary in this case, unless there is an enemy unit sharing one or more of the unit's wall/hedge hexsides.

9.324 CONCEALMENT: A concealed unit (or dummy stack) may claim WA, but a dummy stack cannot prevent a non-dummy enemy unit from claiming WA over shared wall/hedge hexsides; the side trying to claim WA must first prove that it has at least one non-dummy unit by momentarily revealing one if all are concealed, and the opposing side must then momentarily reveal one non-dummy unit or forfeit WA. A hidden unit can never claim WA and must be placed (concealed) onboard to be able to claim WA during play, but may do so at any time—even at the moment an enemy unit moves adjacent and wants to claim WA.

9.33 ELEVATION EFFECTS: If a non-Aerial firer is at an elevation above the wall/hedge > the distance in hexes to the target hex, reduce the TEM of that wall/hedge hexside by one for each full level by which the height exceeds the distance (to a minimum TEM of 0). If a wall/hedge TEM is reduced to 0 in an otherwise Open Ground hex, Interdiction and FFMO are allowed and any HD status is negated. If the TEM of a wall is reduced to +1 by elevation effects, any HD target is subject to a -1 drm to the colored dr of the To Hit DR of any such Direct Fire shot against it for Location of Hit purposes only. The TEM of shellholes, bridges, and entrenchments can be reduced in a similar manner by a firer's elevation advantage.

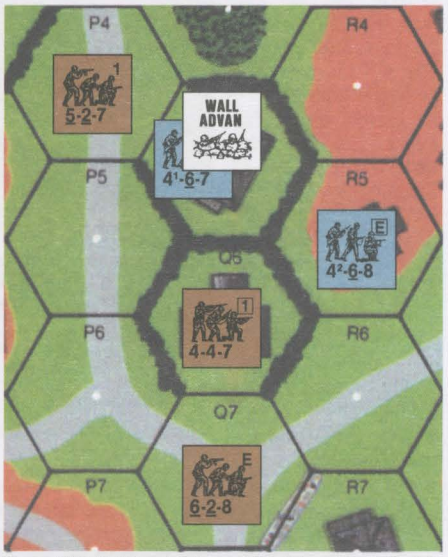


EX: The 4-6-7 on level 2 of 12O7 can ignore the hedge when firing into O8 because its level 2 height is > the one-hex distance to the target. However, if the 4-6-7 fires on P8, it must still add a +1 hedge TEM because its level 2 height is not > the distance (two hexes). A unit on the first level of O7 firing into O8 would still have to add a +1 hedge TEM because it is not a full level higher than the Half-Level obstacle and its elevation (1) is not > the range (1). The TEM of a unit entrenched in P7 would be reduced to +1 for attacks by the 4-6-7 at level 2.

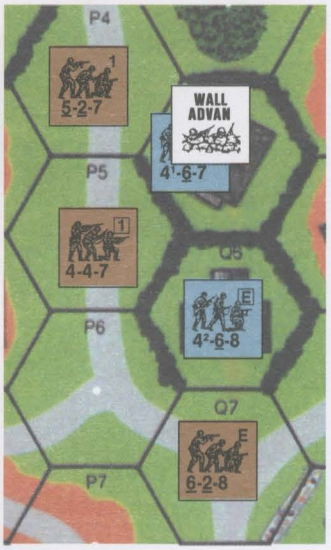
9.34 INDIRECT FIRE: The TEM of a wall/hedge hexside is lowered by one for Indirect Fire, but this TEM applies (irrespective of WA) even if that hexside is not crossed by the incoming fire. Only one wall/hedge TEM can be applied to the resolution of such fire, regardless of the number of such features present in the target hex. A hedge TEM reduced thusly to zero would still negate FFMO/Interdiction for a mortar whose LOF enters the hex via the hedge hexside. A target is never HD (D4.2) to Indirect Fire. If in a woods hex, Air Bursts (13.3) applies–even if the unit has WA (but is combined with wall TEM if applicable).

9.35 A wall/hedge which lies along a hexside common to two adjacent hexes with different Base Levels is on the lower of the two Base Levels if some of the lower Base-Level's terrain is depicted between the wall/hedge depiction and the crest line (e.g., 3U4-V4). If not, the wall/hedge is a Hillside wall/hedge (9.6). A wall/hedge provides no TEM or HD status to a target Location that is at a different elevation than the base elevation of the wall/hedge.

EX: In the top Example of the right column, fire against a 4-4-7 in 41R4 (Level 1) would not be affected by the Q5-R4 hexside (Half-Level obstacle on level 0), nor by the P4-R4 hedge hexspine, but a unit in P4 could claim hedge TEM if attacked from R4 due to the P4-R4 hexspine.



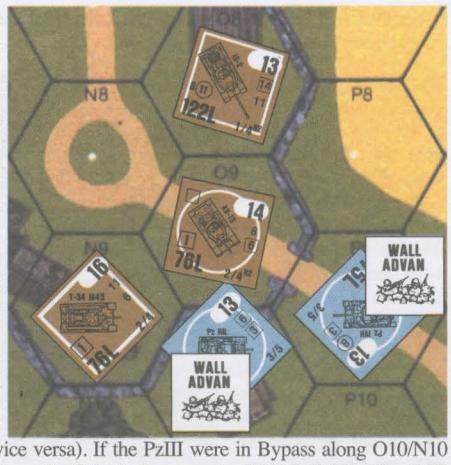
EX: The 4-6-7 with WA in 41Q5 cannot deny the 5-2-7 in P4 WA (over O4-P4) since the two units do not share any wall/hedge hexsides, nor could it deny an enemy unit in R4 WA if R4-R5 were a wall hexside. The 4-6-7 does deny WA to the 4-4-7 in Q6 since they share the Q5-Q6 hedge hexside (9.321). The 4-6-8 in R5 may not claim WA because it is at a higher elevation than the hedge hexside (9.35). Claiming WA, the 4-6-7 will receive hedge TEM vs fire from the 4-4-7, and no TEM vs fire from the 5-2-7 since a unit claiming WA never receives in-hex TEM. It is the Russian PFPh, and the 5-2-7 declares an attack (with no TEM). The 4-6-7 would not be able to forfeit WA and claim building TEM until after the attack has been resolved. After having thusly forfeited WA, the 4-6-7 may choose between the building and hedge TEM if fired on from P6 and R6, but must use the building TEM if fired on from the 4-4-7 (assuming the 4-4-7 now has WA) even though Q5-Q6 is a hedge hexside, since a unit without WA may only use wall/hedge TEM vs units which do not have WA over that hexside (9.31). Furthermore, the 4-4-7 may immediately claim WA since all enemy units sharing wall/hedge hexsides have forfeited WA (9.322). If the 4-4-7 claims WA and later becomes broken or moves, the 4-6-7 may similarly claim WA even if it has previously forfeited it that Player Turn. Assume the 4-6-7 retained WA and survived Prep Fire. When the 4-4-7 moves to P5, the 4-6-7 denies it WA and First Fires on it using FFMO and no TEM because the hedge TEM is NA vs a firer with WA over that hexside. If the 4-6-7 fires as a FG with the 4-6-8 in R5, the hedge TEM applies (A.5).



During the next German MPh, the 4-6-8 moves from R5 to Q6 and although it could claim WA as part of the MF expenditure for entering the Location (the 4-4-7 in P5 is still denied WA by the 4-6-7 in Q5, and therefore cannot prevent the 4-6-8 from claiming WA), it chooses not to do so. If the 4-4-7 (or the 6-2-8 in Q7) First Fires now, the attack will be subject to building TEM. After this the 4-6-8 may still claim WA (since it has not yet completed its MPh) even if not spending additional MF, but if doing so the 4-4-7 may (Subsequent) First Fire subject to the hedge TEM and the 6-2-8 may (Subsequent) First Fire with FFMO (assuming the DEFENDERs haven't exhausted their First Fire capability based on the three MF expended when entering the Location). The 4-6-8 may wait until the APh to claim WA, but if the 4-6-7 in Q5 becomes broken (or leaves) before this, the 4-4-7 in P5 must claim WA (9.323) and will thereafter prevent the 4-6-8 from claiming it.

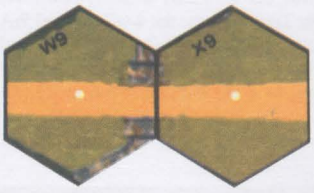
9.36 HULLDOWN: Any vehicular target fired on by Direct Fire subject to wall TEM is considered HD (D4.2) instead *[EXC: an unarmored vehicle or a partially armored vehicle which is fired on by non-ordnance vs an unarmored target facing is not HD; such a vehicle (but not its PRC) instead receives the wall TEM]*. Hedges do not create HD status.

© 2000 Multi-Man Publishing, LLC



9.36 EX: The PzIII in 43O10 in Bypass along O10/O9 and the PzIV each have WA and are HD to all 3 Russian AFV. The KV-1S receives no protection from attacks by the panzers, but the PzIV cannot use its BMG against targets in O9 (D4.223). Both the T-34 and IS-2 receive building TEM from attacks by the PzIII and both can qualify for *either* building TEM *or* HD status for attacks from the PzIV (although neither can use its BMG against targets in P9—or vice versa). If the PzIII were in Bypass along O10/N10 instead, it would have WA vs the T-34 but not vs the KV-1S (9.32). The PzIII would still be HD vs all 3 Russian AFV, but now the KV-1S would also be HD vs the PzIII (9.31).

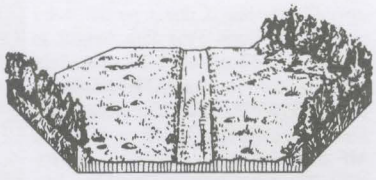
In its MPh the PzIII starts and enters P9. The T-34 cannot claim WA because it is eligible for in-hex TEM (9.32). Despite the fact that the PzIII has WA (thanks to the PzIV), it is not HD to the KV-1S through the gap in the wall because it is moving (even if it Stops; C.8). The PzIII changes its VCA to P8/Q9 and enters P8. It has WA (and thus is HD to all 3 Russian AFV) because the KV-1S cannot claim WA (thanks again to the PzIV) and because the IS-2 (occupying in-hex TEM of ≥ 1) also cannot claim WA. If the IS-2 had been in Bypass along either the O9/O8 or P8/O8 hexsides, it would have retained WA, thus denying it to the PzIII. The IS-2 would be HD vs the PzIII, while the KV-1S and PzIII, each lacking WA, would be HD to each other (and thus unable to use their BMG against targets in each other's hex).



9.4 MOVEMENT: The cost for Infantry/Cavalry to cross a wall/hedge hexside is one MF plus the COT of the hex moved into. The cost for various types of vehicles to cross a wall/hedge is indicated on the Chapter B Terrain Chart. A vehicle failing a Bog Check for crossing a wall/hedge is Bogged in the hex it attempted to leave. Wall/hedge hexsides are never expressed as a COT, but rather as an addition to COT. Therefore, when a unit must pay double its normal MF cost to cross a Crest Line it pays double the COT of the hex plus the one MF for its hexside. Some wall/hedge hexsides such as 6W9-X9 have obvious gaps in them which can be crossed without paying the wall/hedge MF/MP penalty (by using the road if one exists).

EX: See the 9.35 illustration. It costs three MF to move from 41Q5 to R4 (1 + [2x1] = 3).





9.5 BOCAGE: Bocage (or hedgerow) is a special form of hedge grown on top of low earthen mounds to form a natural wall. All rules pertaining to walls are applicable to bocage except as modified below.

9.51 Bocage is depicted by wall/hedge hexsides as specified by SSR.

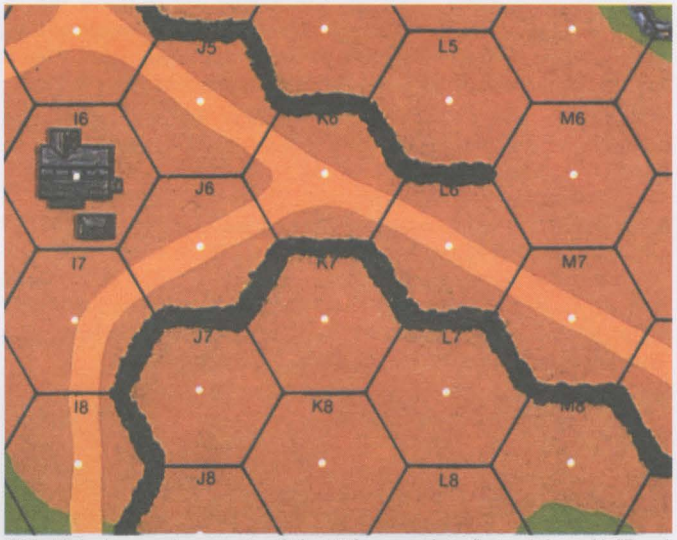
9.52 Bocage is a one-level LOS obstacle with a difference. Although a defender behind (but in the Location formed by) a bocage hexside may be in the LOS of a higher level firer, the next hex along that LOS through that bocage hexside is a Blind Hex (A6.4). Treating that bocage hexside as instead being a "Single-Story House" in that defender's hex is a good way to visualize how it creates Blind Hexes vs that higher-level viewer *[EXC: 9.531]*. A bocage *hexspine* is treated as a normal one-level obstacle in all respects.

9.521 LOS cannot be traced through bocage along a bocage hexspine as can be done with a wall (9.2). LOS may be traced through a bocage hexside to/from a Location formed by that hexside, but only to/from the adjacent hex formed by that hexside, or to/from units that currently claim WA over that hexside.

9.53 A non-vehicular Direct-Fire Gun may not both change CA and fire through a bocage hexside in the same fire phase (counting Defensive First Fire and Final Fire as one phase—A.15).

9.531 Elevation advantages (9.33) have no effect on the TEM of bocage but can reduce the number of Blind hexes caused by bocage to zero, as per A6.42.

9.54 To cross a bocage hexside costs Infantry two MF plus COT. No other unit may cross a bocage hexside except a fully-tracked AFV. An AFV crossing a bocage hexside cannot use Reverse-movement/carry-Riders, and is subject to Underbelly Hits, loss of Schuerzen (D11.2), and Bog (in the hex being exited), as it crosses the bocage hexside *[EXC to all: if crossing via a road or existing Breach; 9.541]*.



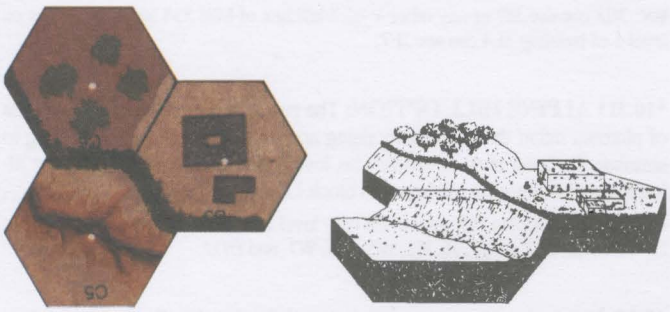
EX: All hedges are bocage. A unit in 11I6 can see into (but not through) J7 and K7. If I6 had a second level, a unit on that second level could also see L8 or K9 but not J8 or K8 due to the Blind Hex (9.52; i.e., its LOS would be blocked by the "Single-Story House" in J7). A unit in J6 can see J7 and K7 (and beyond into K8, L7, etc. only with Wall Advantage). A unit in K5 can see J5 and K6, and with Wall Advantage beyond to K7, J7, and L7, but not beyond the latter three hexes—nor can it see I5, L6, I8, or M8 (9.521) because LOS cannot be traced along a bocage hexspine (thus also prohibiting Snap Shots from K5 to hexsides I5-J5, I8-I7, M8-L7, etc.).



9.541 BREACH: A Dozer tank, bulldozer, or AFV designated by SSR as being equipped with the Culin hedgerow device or similar equipment (after 7/25/44) may breach a hedgerow it traverses by expending its entire MP allotment *[EXC: Start MP]* to cross that hexside and passing a Bog DR. Failure to pass the Bog DR leaves the vehicle Bogged in the hex it started in and leaves the bocage unaffected. Such a vehicle engaged in breaching a hedgerow may not do so using Reverse movement, but is not subject to Underbelly Hits. Mark the affected hexside with a Breach counter so that the arrow points to that hexside. Thereafter, movement/Manhandling (C10.3) across that hexside is treated as if it were Open Ground, but the Breach has no other effect on bocage rules.

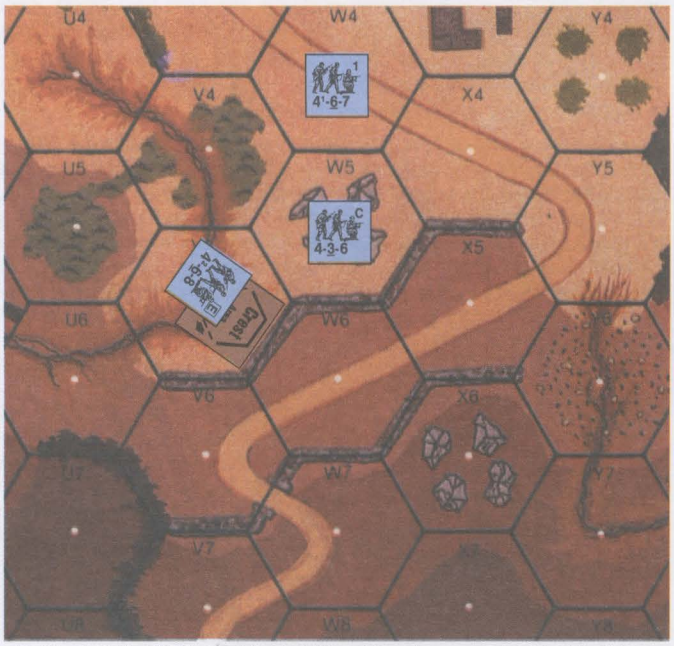
9.55 CONCEALMENT: An Infantry unit receiving (or capable of claiming) bocage TEM vs all enemy (Good-Order/unbroken, as per A12.1) ground units with a LOS to it, is treated as being in Concealment Terrain for all "?" loss/gain purposes, and is treated as being out of all enemy ground LOS for determining both its ability to gain "?" and its possible loss of "?" due to RPh activities and MF expenditures. If an Infantry unit has set up using HIP solely due to being in a Location containing a bocage hexside, and a Good Order enemy unit has a LOS to that Location which is not affected by bocage TEM, the HIP unit is immediately placed on board beneath a "?".

© 2000 Multi-Man Publishing, LLC



9.6 HILLSIDE WALL/HEDGE: A Hillside wall/hedge is one which lies along a hexside that is common to two adjacent hexes with different Base Levels, with none of the lower Base-Level's terrain appearing between the wall/hedge depiction and the higher Base-Level's terrain depiction. Examples of Hillside walls/hedges are 25B4-B5, 25C5-C6, 25U3-U4, 25V9-W9, 25X4-X5, 8M4-M5, 8X3-X4, 12X4-Y4, and 13S4-S5. All normal wall/hedge rules apply to Hillside walls/ hedges except as modified herein.

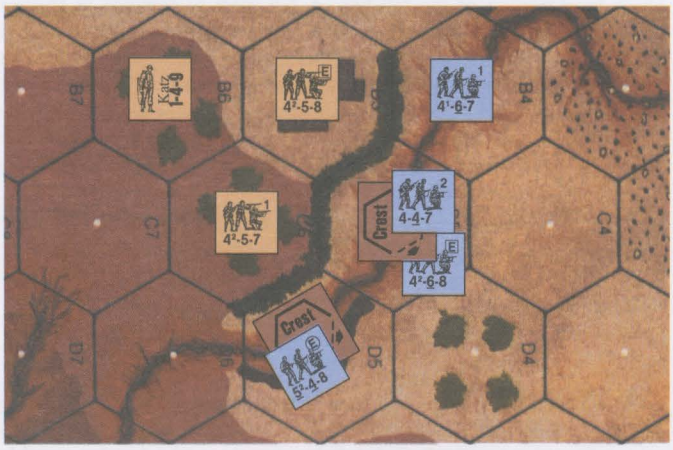
9.61 LOS: A Hillside wall/hedge (including both its depiction and its associated hexside; 9.1) is ignored (even along a Continuous Slope) when determining whether or not a LOS exists between units whose elevations differ by ≥ one full level *[EXC: a unit entrenched behind a Hillside wall/hedge still has its LOS restricted as per 9.21]*. It is likewise ignored when determining the number of Blind Hexes created by a Crest Line. If a hill Crest Line ends at a Hillside wall/hedge, *the line along which the hill depiction meets the wall/hedge depiction* is considered to be the actual Crest Line.



EX: The 4-6-7 in 25W4, the 4-3-6 in W5, and the Crest-status 4-6-8 in V5 all have a LOS across one or more wall hexsides/hexspines to the following hill hexes: U7, V6, V7, W6, W7, W8, X5, X6 and X7 (although they could see entrenched units in V6/W6/X5 only if adjacent to them) . A unit IN V5 would have a LOS to all those same hexes *[EXC: not to any entrenched unit(s) in X5]*. The 4-6-7 also has a LOS to the Crest level of Y7. The 4-3-6 also has a LOS to Y5. In no case could any of these units claim wall TEM vs an attack coming from any of these in LOS hill hexes.



9.62 ELEVATION, TEM & WALL ADVANTAGE: A Hillside wall/hedge is always at the *higher* of the two Base Levels it lies between, and is treated as a normal wall/hedge when calculating the TEM of targets at ≥ the wall/hedge's base elevation. However, a unit at any level *lower* than that on which a Hillside wall/hedge sits never receives *any* benefit (including Wall Advantage; 9.32) from that wall/hedge hexside. A unit in Crest status may claim Wall Advantage over a Hillside wall/hedge that forms a hexside of that unit's hex only if both are at the same elevation and on the same side of the Depression. Otherwise, a unit's inability to claim Wall Advantage over a Hillside wall/hedge hexside does not prevent it from claiming Wall Advantage over another wall/hedge hexside, provided the unit meets all the other B9 criteria for doing so.



EX: The 4-6-7 IN 25B4 can claim neither hexside TEM vs, nor Wall Advantage over, the 4-5-8 in B5, nor can it claim hedge TEM vs the 4-5-7 in C6; however, the 4-5-8 could receive such benefit, and the 4-5-7 could claim hedge TEM, vs the 4-6-7 because both British squads are directly behind, and at the same level as, a Hillside hedge (hexside C5-C6 in the case of the 4-5-7).

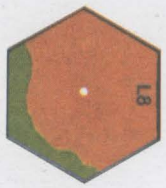
If the 4-6-7 were in crest status with its center protected Crest hexside at B4-A5 or B4-B5, then it could, if having Wall Advantage, claim hedge TEM vs the 4-5-8/ 4-5-7 since it would be at the same level as, and directly behind, the hedge. If it claimed Wall Advantage it could not also claim entrenchment TEM vs the 4-5-8 [9.31], but if it did not claim Wall Advantage while in crest status, the 4-5-7's attack vs it would still be affected by the B4-B5 hedge TEM [9.3]. Regardless of whether or not the crest 4-6-7 claimed Wall Advantage, the 4-5-7's attack vs it would not be affected by entrenchment TEM [20.92].

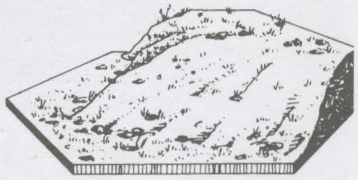
Neither the 4-6-8 IN C5 nor the Crest-status 4-4-7 in C5 can claim hedge TEM vs, or Wall Advantage over, the 4-5-7 because both German squads are lower than the C5-C6 hedge's base elevation. If the hero in B6 attacks the C5 Germans, the 4-4-7 (but not the 4-6-8) can claim the B5-C5 hedge TEM (9.3). (The C5-C6 level-one hedge cannot affect that attack by the hero.)

Provided neither the 4-5-8 nor the 4-5-7 were already marked with a Wall Advantage counter the 4-4-7 could claim Wall Advantage over the B5-C5 hedge even though it cannot claim it over the higher-level C5-C6 hedge.

If the 4-5-8 fires at the Crest-status 5-4-8 in D5, the latter cannot claim hedge TEM since it is a level lower than hexsides C5-C6 and D5-C6.

9.7 CACTUS HEDGE: A SSR may specify that walls/hedges are cactus hedges. All hedge rules apply to such hexsides—except that Infantry may cross one only via Minimum Move (A4.134), Low Crawl (A10.52) or Advance vs Difficult Terrain (A4.72), and that Cavalry, Horses and Wagons may not cross one at all.





10. HILLS

10.1 Hills represent terrain elevations which rise above ground level, and any terrain upon them rises normally from this new level to form new height equivalents. For example, a one level obstacle on a level 1 hill hex becomes a level 2 obstacle to the LOS of a unit at level 0. Inherent Terrain (B.6), whether a one-level Obstacle or Hindrance (e.g., orchard) or a half-level Obstacle (rubble) or Hindrance (crag, wreck) rises from the ac-

© 2000 Multi-Man Publishing, LLC

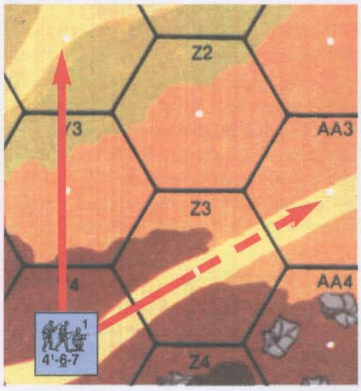
tual hill depiction (i.e., in a Hill-Orchard hex, LOS that crosses the hill depiction is affected up through level 2; LOS that does not cross the hill depiction is only affected through level 1). Other terrain (e.g., grain, brush, woods, building) is at the higher level throughout the entire depiction of the terrain in question, even if it *appears* to be rising from the lower level portion of the hill hex. A hill mass is depicted in various shades of brown; the lightest shade in any group of contiguous brown hexes being level 1, the next darker shade being level 2, and so on. The specific shades often vary from one board to another and are relevant only in comparison to the other shades of the same hill mass. For aesthetic purposes, many hexes contain colors representing more than one elevation, but units therein are always considered at the elevation level containing the hex center dot.

EX: LOS from 36AA8 to 36GG2 sees "over" (B.4) the orchard in DD4 rising from level 0. LOS from 36CC4 to 36U5 is blocked by the woods in 36BB4 rising from level 2.

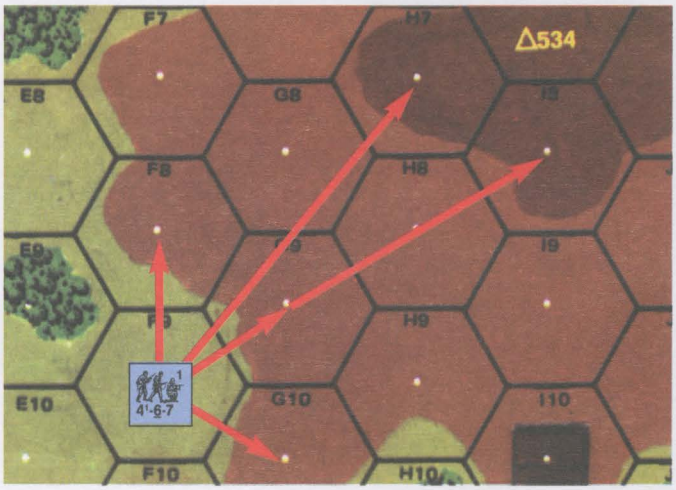
EX: Level One Hill hexes: 2G4, 15J1, 18Y8; Level Two Hill hexes: 2I4, 15Y8, 18Y7

Level Three Hill hexes: 2J4, 9X6, 15X6; Level Four Hill hexes: 9O5, 15Y6

10.11 CREST LINE: A Crest Line is formed in every hex where two different full-level elevations meet. Crest Lines are important both for determining movement costs and defining the slope of a hill for possible LOS obstructions.



10.2 DIFFERENT LEVEL LOS: A lower level unit may trace a LOS into only the initial Crest Line hexside of each level above it. Likewise, a unit may trace a LOS to a lower level only if the higher unit traces its LOS through a Crest Line as it leaves its hex and this LOS never re-crosses another Crest Line of the same or higher elevation *[EXC: A unit may always trace a LOS through a Crest Line in an adjacent hex of lower elevation (15Y4 can fire through Y3 to Y2 and along the Y3-Z3 hexside to Z2 but it cannot fire through Z3 to AA3)]*. Even if a LOS survives this test it can still be blocked by other requirements such as 10.23.



EX: A unit in 3F9 can trace a LOS to level 1 hill hexes G10, G9, F8 and level 2 hill hexes H7 and I8, but not to any other hex of hill mass 534.

10.21 SAME LEVEL LOS: Units at the same level can trace a LOS to each other (barring intervening LOS obstacles—including higher Crest Lines) regardless of the presence of intervening equal or lower elevation Crest Lines.

EX: 3E3 can see 3J7 or any other level 2 hill hex of hills 534 and 547. A unit on level 1 of building 3L4 can see 3F7.

***10.211 ALPINE HILL OPTION:** The previous rule treats hills as a series of plateaus rather than constantly rising and rolling terrain. Those wishing to simulate the latter style of terrain can invoke a SSR for Alpine Hills by allowing equal-elevation hill hexes to block LOS *through (not into)* them.

EX: Using the Alpine Hill option, the only level 2 hill hexes on board 3 which can be seen from 3K7 are J7, J6, H2, W5, W6, W7, and DD2.

10.22 A unit always requires a height at least equal to the height equivalent of an obstacle to see past it to a same-level target. Therefore, a unit on a Level 1 hill hex or on the first level of a building is high enough to see over ground level woods (or any other level 1 obstacle at ground level) symbol to a level 1 or higher target. It is also high enough to see over a wreck/AFV or Half-Level Obstacle (such as a wall/hedge) at ground level and thereby negate the effects they exert on a same-level LOS, although TEM may apply as per 9.33.

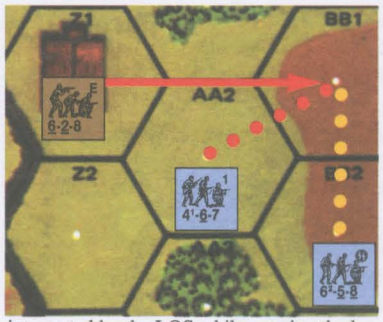
10.23 BLIND HEXES: A lower level non-cliff Crest Line creates a Blind Hex to a higher level viewer only if that Crest Line is at least five hexes away from that viewer and the next hex along his LOS has a lower elevation than that of the Crest Line hex *[EXC: If the elevation level difference caused by that Crest Line and the next hex along the LOS is ≥ two, at least one Blind Hex is created (unless adjacent) even if within five hexes of the higher level firing hex]*. One Blind Hex is created for each elevation level difference caused by that Crest Line. In summary, the nominal effect of a one-elevation change Crest Line to a higher level viewer is to create no Blind Hexes at a range of 1-4, one Blind Hex at a range of 5-9, two Blind Hexes at a range of 10-14, three at a range of 15-19, etc. The Blind Hexes created by these Crest Lines can be reduced to a minimum of zero by A6.42 or increased by A6.43.

EX: (A) 15Y6 (level 4) cannot see U7—even though it is only four hexes away—because the V6-U7 cliff hexside creates a drop of two elevation levels, creating a Blind Hex (U7) and also because it is a cliff hexside (11.21). (B) Y6 can see X6, W7, V7, and U8 because each Crest Line creates only a one elevation level drop and each is within four hexes of Y6. It is also a Continuous Slope. (C) Y6 can see EE3 even though the Crest Line in DD3 is five hexes away and creates a Blind Hex, because Y6 (level 4) has a three level elevation advantage over DD3 (level 1) sufficient to negate two Blind Hexes, and an elevation advantage can reduce the number of Blind Hexes to zero in the case of Crest Lines (A6.42). (D) Y6 cannot see EE5 because the 3rd level Crest Line in DD5 is five hexes away and therefore creates a Blind Hex in EE5 which cannot be negated by the one level elevation advantage of Y6. (E) X6 (level 3) cannot see K7 because the second level Crest Line in M7 creates two Blind Hexes at 11 hex range and the elevation advantage of X6 is insufficient to negate them. However, from Y6 the two Blind Hexes caused by the M7 Crest Line at 12 hex range can be reduced to one due to the two level elevation advantage of Y6 (A6.42). (F) CC5 (level 3) cannot see CC1 due to the one level woods obstacle (level 1 woods on a level 1 hill) at CC3 which causes two Blind Hexes over the lower terrain behind CC3 (A6.43). (G) Q4 can see M2 because the O3 building presents only a one level obstacle (A6.43) and therefore creates only one Blind Hex. If M2 were a Level 0 hex, O3 would cause two Blind Hexes.

10.3 The TEM of a hill hex is dependent on the other terrain in the hex/the LOS of the firer. Barring other terrain in the hex or an applicable Height Advantage, a hill hex is considered Open Ground for TEM, Interdiction, and Rout purposes, provided a LOS to it exists.

10.31 HEIGHT ADVANTAGE: Any unit in a hex receiving Direct Fire from a lower elevation is entitled to a +1 TEM, provided that unit is not eligible to receive any other positive TEM or CE DRM other than those caused by LOS Hindrances *[EXC: a moving unit being fired on by Defensive First Fire is not eligible for the Height Advantage TEM if in entering the target hex it crosses a Crest Line through the same hexside that is intersected by the firer's LOS]*. A unit eligible for the +1 TEM for Height Advantage is not subject to Interdiction/FFMO by an attack to which that +1 TEM applies.

© 2000 Multi-Man Publishing, LLC



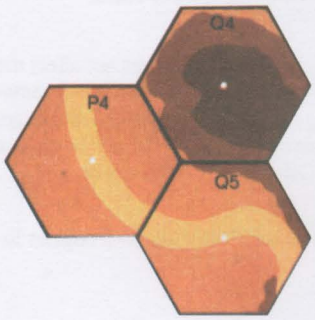
EX: The squads in 3AA2 and BB2 both use Assault Movement to enter BB1. If fired on from Z1, the 4-6-7 would be subject to a FFMO DRM (instead of the +1 Height Advantage TEM) because it crossed a Crest Line along the same hexside intersected by the LOS in entering the target hex, but the 6-5-8 would be eligible for a +1 TEM for Height Advantage (and thus not FFMO) instead because it did not cross a Crest Line intersected by the LOS while entering the hex. If these units were instead routing, only the 4-6-7 could be Interdicted from Z1.

10.4 Units crossing a Crest Line into higher terrain must pay an increased movement cost. Infantry, Cavalry, and Horse-Drawn units crossing a Crest Line into higher terrain must pay double the COT of the hex entered, vehicles must pay four MP & COT (unless they enter via a road hexside, in which case they pay two MP plus the COT of the hex entered). Bicycles and ski units can gain MF by moving to a hex of lower elevation, but otherwise movement cost for entering a hill hex is dependent on the other terrain in the hex.

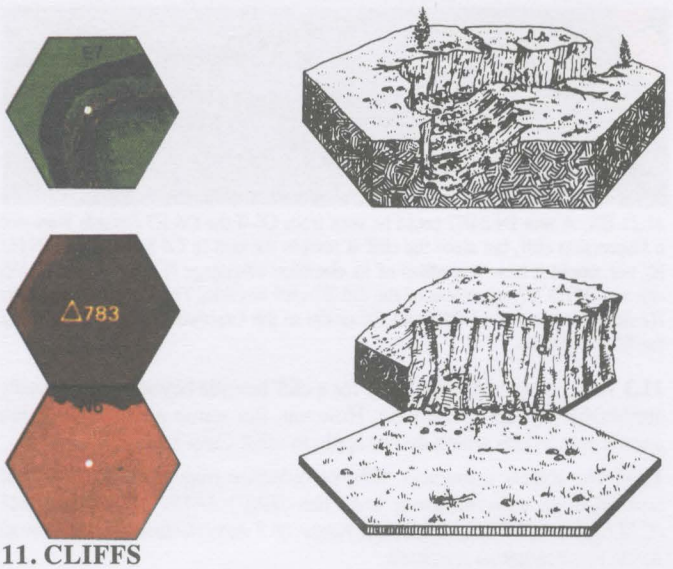
10.5 ABRUPT ELEVATION CHANGES: An Abrupt Elevation Change occurs when a unit enters two or more levels while crossing one non-cliff hexside; e.g., 15R3/R4, or 8CC6/DD5, or 13L5/L6, or 15BB8/AA9 or 12Y4/Y5 (see 19.4 example). Abrupt Elevation hexsides have special movement costs/restrictions.

10.51 When a unit crosses an Abrupt Elevation hexside, the calculated terrain cost of each level entered becomes cumulative. Each intermediate level (i.e., each level *between* the unit's initial and final levels occupied during the move) *ascended* costs two MF/four MP; each intermediate level descended costs one MF/two MP. The last level entered costs both the normal terrain MF/MP amount for being entered from a different level plus any extra MF/MP caused by Artificial Terrain in the hex.

EX: (A) It costs a squad four MF to move from 15R3 to R4 (two MF to ascend one intermediate level plus two MF to ascend the final level), and two MF to move back to R3 (one MF to descend one intermediate level plus one MF to enter R3). (B) It costs a squad three MF to move from 15Y9 to X9 (one MF to descend a level plus two MF to enter the crag hex) or to move from 15BB8 to AA9 (one MF to descend a level plus two MF to ascend a level). (C) Likewise, it costs a fully-tracked vehicle nine MP to move from 13L6 to L5 (four MP to ascend one intermediate level and five MP [4 +1] to ascend the final level and move into the hex). The move downward from 13L5 to L6 costs five MP (two MP to descend a level plus three MP to enter the stream). If SMOKE exists in both hexes, the cost would be 10 MP to go up and six MP to go down.

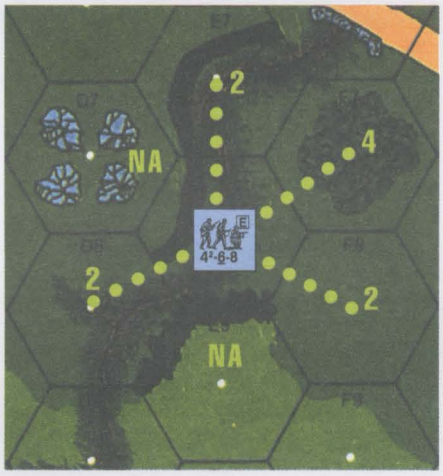


10.52 DOUBLE-CRESTS: When a unit crosses an Abrupt Elevation hexside and, in so doing, crosses two hillside (not gully, marsh, etc.) Crest Lines of different levels, it has crossed a Double-Crest hexside (e.g., 15Q4-Q5). A vehicle may not cross a Double-Crest hexside except via a road, nor may Cavalry charge across a Double-Crest hexside.

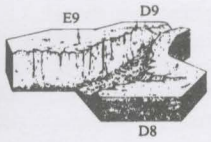


11. CLIFFS

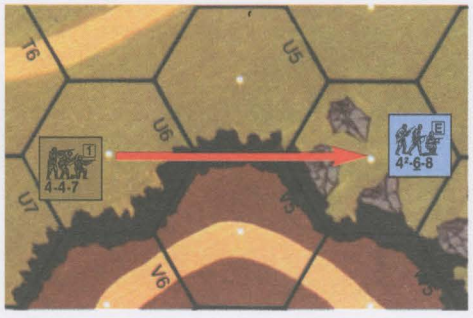
11.1 Hill hexsides overprinting a darker, serrated, brownish-black color are cliff hexsides representing near-vertical hillsides. Examples of cliff hexsides are 2W5-V4, 3D3-C4, 8X5-Y6, 9EE2-EE3, and 15N5-N6. Cliff hexsides can also occur along Depression hexsides (such as 24E6-E7 or dF1-G1 of *Deluxe ASL*).



EX: A unit cannot enter 24D7 from E8 or E7 without Climbing. The 4-6-8 in E8 can enter only D8, E7, F7, or F8 without Climbing. Once IN E7 he can enter only F6, F7, or E8 without Climbing.



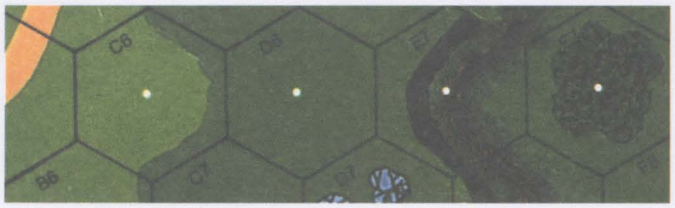
11.2 The serrated edge of a cliff is no more of an obstacle to LOS traced along that hexside than the elevation level it separates from the higher hill hex. For LOS purposes, the black art depiction of a Depression cliff is treated as part of the Depression artwork.



EX: The 4-4-7 in 15U6 can see the 4-6-8 in V4.

11.21 Unlike normal Crest Lines (10.23), the Blind Hexes caused by a cliff hexside to a non-adjacent viewer can never be reduced below one regardless of elevation advantage. (See EX at the top of the next page.)

© 2000 Multi-Man Publishing, LLC



11.21 EX: A unit IN 24E7 could be seen from C6 if the D6-E7 hexside were not a Depression cliff, but since the cliff is present the unit in C6 has no LOS INTO E7 nor would it have regardless of its elevation advantage (11.21). A unit in D6 can see INTO E7 regardless of the D6-E7 cliff hexside. The Depression cliff in E7 does not block the LOS from C6 or D6 to the Crest-status level of E7 along the E7-F7 hexside.

11.3 There is no additional TEM for a cliff hexside beyond that normally attributable to a hill Crest Line. However, fire across a cliff hexside has several restrictions which do not apply to other Crest Lines.

11.31 No vehicle armament, IFE, or ordnance may fire through a cliff hexside to an adjacent lower level hex *[EXC: LATW other than PIAT (C13.61) or MTR with minimum range of 1 hex]*. Other SW and Small Arms Fire are not so restricted.

11.32 Only an AA weapon, MG counter, SW ATR, PIAT, MTR with minimum range of 1 hex and/or inherent Small Arms Fire may fire through a cliff hexside to an adjacent higher level hex.



◊

11.4 CLIMBING: Only Good Order Infantry may cross a cliff hexside, and only in the act of Climbing. A Climbing unit may not use, transfer, recover, (un)dm, or repair a SW, Prep Fire, or perform any other form of movement or advance *[EXC: 11.432]*. A Climbing unit is not subject to Pinning. Climbing is also used to scale buildings (23.424) or bridges (6.4).

11.41 FALLING DR: An Infantry unit must make a DR (Δ) ≤ 9 in order to ascend or descend a cliff hexside during that MPh. If a 10 or 11 Final DR is rolled, the unit may not move from its present position during that phase even though it is considered to be in the act of Climbing/descending. If a 12 or higher is rolled on the Falling DR, the unit and any SW in its possession is eliminated. There is a cumulative +1 DRM to the Falling DR if rain, snow of any kind, or heavy winds are currently in effect. A broken/wounded unit may not Climb. A Climbing unit may portage only its CX IPC (i.e., one less PP than its normal IPC; A4.52).

11.42 A Climbing unit is using Hazardous Movement, but a LOS may not be drawn to a Climbing unit through the cliff hexside it is Climbing unless the firer is occupying a hex formed by that cliff hexside. All fire to a Climbing unit must be traced to a vertex of the hexside being Climbed. The correct Climbing vertex is designated by placing the Climb counter so that the arrow touches the vertex. If the counter is ambiguously placed, the opponent has his choice of which vertex to fire at. Climbing units never receive a favorable TEM (even Height Advantage) but Hindrances do apply to incoming fire. Any unit that becomes broken, wounded, or berserk while Climbing is eliminated, but Climbing units need not take any type of MC that is not directly dictated by the IFT (including LLMC/LLTC). Climbing units at a level higher than the base level of the hex are immune to Indirect Fire unless the attack crosses the lower-elevation hexside opposite the cliff when being placed in that target hex. For this purpose, OBA is considered traced from the center of the road exiting the firer's Friendly Board Edge at hex row Q, or A5/6, or GG5/6 as applicable.

EX: A Climbing unit is on level 1 of the 2T6-T7 cliff hexside. A mortar firing into T7 will affect the Climbing unit only if its LOF is traced through the T7-T8 hexside.

11.43 Climbing requires ALL of a unit's MF allotment. Infantry attempting to traverse a cliff hexside is placed on an appropriate (i.e., equaling the unit's present height on that cliff hexside) Climb counter on the lower side of the cliff hexside. During its MPh, if the unit successfully descends, it is placed on a Climb counter one level lower than previously occupied. If the unit is ascending, it is placed on a Climb counter one level higher than previously occupied. Normal stacking limits apply to each level of the cliff surface. Unpossessed equipment on a Climb counter is eliminated.

11.431 Climbing units may fire only during their AFPh and never beyond their Normal Range (although combining AFPh Fire with PBF will return their attack to normal strength), and trace their LOS from their Climbing vertex.

11.432 APh: Climbing may not be attempted during the APh. However, if in the MPh a Climbing unit reaches a level equal in height to its destination it may advance across the cliff hexside if ascending (thereby eliminating the Climb counter) or, if descending, it may remove the Climb counter. A Climbing unit is never restricted by the A4.72 APh rules for advancing into difficult terrain, but if there were any movement penalties in addition to Climbing (e.g., leaving an Encircled Location, Climbing in SMOKE, etc.) then the unit would be pinned after advancing off the Climb counter. If scaling a building, the Climbing unit merely removes the Climb counter and substitutes the proper building level counter.

11.433 COMMANDO: Gurkhas, or any unit specified by SSR or DYO special purchase as Commandos are specially trained and equipped for climbing. Commandos are prevented from Climbing a cliff hexside only on a Final Falling DR of 12 and eliminated only on a Final Falling DR ≥ 13 (11.41).

11.434 CX: Climbing units are always considered CX while on a Climb counter. Once the Climbing unit advances off the Climb counter it is marked with a CX counter.

EX: A squad moves to 15T5 on Turn 1; it cannot Climb because Climbing requires *all* of a unit's MF. During his turn 2 MPh, the player announces the squad is Climbing the S5-T5 hexside and is placed on a Climb Level 0 counter but, because it rolled a 10 on its Climbing DR, makes no progress and remains on the 0 Level counter. However, it is still Climbing. It may use the subsequent APh to move off the Climb counter at ground level and thus forsake Climbing, but if it does not then it may not move from that hex in its next MPh. On turn 3 it continues to Climb and rolls ≤ 9 on its Climbing DR, so it is now placed on top of a Climb Level 1 counter. Now if it changes its mind about Climbing, it must first ascend to level 3 or descend to level 0 before leaving the hex. If it passes its Climbing DR on turn 4 and 5, it will be able to advance onto S5 during Turn 5 in CX status.





12. BRUSH

12.1 Brush represents a thinly wooded area with dense undergrowth. Any hex containing grass symbols on a dark green background is a brush hex. 12AA10, 13F5, 14W9, and 15CC9 are examples of brush.

12.2 Brush is a LOS Hindrance. Being in a brush hex does not affect the LOS of a firing or target unit; it is only the presence of brush in a same-level hex between the same-level firing (or observing/spotting) and target hex that forms a LOS Hindrance resulting in a +1 DRM per brush hex *[EXC: see A6.7]* to any IFT or To Hit DR, or OBA Accuracy dr.

12.3 Brush has no TEM, but because it is not Open Ground it negates Interdiction and FFMO.

12.4 Infantry/Cavalry enter a brush hex at a cost of two MF.

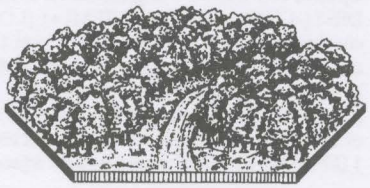
12.5 Brush may be kindled on a DR ≥ 9 and Fire will spread to it from an adjacent Blaze on a DR ≥ 6 (both subject to modification; see Section 25).

12.6 Deep Snow conditions transform a brush hex to Open Ground.

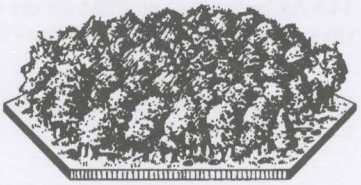
© 2000 Multi-Man Publishing, LLC

12.7 VINEYARD: A SSR may specify brush (or some other terrain) as being a vineyard. A vineyard hex is treated exactly the same as brush except for also being Inherent Terrain (.6) and a Bog hex.









13. WOODS

13.1 Woods represent a forested area with dense undergrowth. A dark green background covered with black woods symbols such as 1C9 or 18J3 is considered a woods hex, as is 19X1 which also contains a road.

13.2 Woods are a one level obstacle to LOS *[EXC: Forest (13.7); Pine Woods (13.8)]*. Like most LOS obstacles, the level of the obstacle is added to the level of the hex; therefore a woods hex on a level 1 hill hex is actually a level 2 LOS obstacle. However, a woods hex in a Depression hex is still a level 1 LOS obstacle because the woods occurs on the higher fringes of the Depression hex as well as IN it.

13.3 AIR BURSTS: There is a +1 TEM for all Direct Fire into a woods hex. All Indirect Fire vs unarmored, CE, or OT (even if BU) targets in a woods hex receives a -1 TEM instead, due to the added lethality of Air Bursts. This negative TEM is always applicable—even to targets claiming other beneficial DRM (such as CE, entrenchments, or emplacements) which cannot be added to other (positive) TEM in the hex.

EX: A Mortar fires on a woods hex containing a squad in a foxhole. The Final TEM is +1 (+2 [foxhole] -1 [Air Burst] = +1).

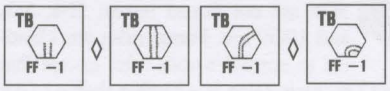
13.31 A moving unit in a combination woods-road hex is not eligible for the +1 woods TEM during Defensive First Fire (and is subject to FFMO/Interdiction) *if* the LOS does not cross a green woods symbol *and* the moving unit entered the hex at the road movement rate regardless of the relative elevations of the firer/target. (See A4.132.) Otherwise, the normal woods TEM is in effect *[EXC: a vehicle(s) in a woods-road hex is always considered on the road unless beneath a partial Trail Break counter]*.

13.32 A vehicular OVR attack in a woods-road hex (regardless of whether the overrunning vehicle enters at the road-movement rate) is penalized by the +1 TEM of the woods except vs vehicle(s) on the road.

13.4 Infantry enter a woods hex at a cost of two MF and Cavalry at a cost of four MF unless entry is made via a road hexside. Cavalry may not charge in a woods hex even if on a road.

13.41 VEHICLES: Any vehicle may enter a woods hex without using Road or VBM by expending all of its movement capability (other than for starting [D2.12], stopping [D2.13], towing [C10.1] and even if using Minimum Move) to enter that hex and then making a Bog DR *[EXC: Motorcycles must be pushed]*. Such movement is possible even while moving in Reverse. Vehicles may also use this method to move off a road into the woods portion of their woods-road hex. All MP penalties for entering a hex containing a wreck/vehicle, and/or for changing a VCA across a non-road hexside, are doubled while in a woods hex.

13.42 FULLY-TRACKED: A fully-tracked vehicle may also enter a woods hex (by other than Bypass, Trail Break, or Road) by expending half of its MP allotment in that hex, but it must check for Bog (D8.21) with a +3 DRM.



13.421 TRAIL BREAK (TB): Anytime a fully-tracked AFV enters a woods hex without benefit of Bypass or a road/TB hexside, a partial TB counter is placed on the hex with the counter's "treads" illustration tracing a line across the woods hex from the hexside entered to the hex center dot. Once that AFV leaves the hex via another hexside, a full TB counter is placed in the hex, showing the vehicle's path of movement. Thereafter, any fully-tracked vehicle may use the TB to traverse those hexsides at half its MP allotment without threat of Bog. If a fully-tracked AFV enters a woods hex via an already existing TB counter and then exits via a hexside not covered by that TB counter, it must first undergo a Bog DR for exiting the woods without using a TB. A TB cannot be created or used by non-fully tracked vehicles. A vehicle that sets up in a woods road hex does not place a TB counter (unless setting up in the woods portion of a woods-road hex) but need not take a Bog Check when exiting the hex without changing its VCA. Any vehicle that *enters* a woods hex via a road must take a Bog Check when exiting the hex via a non-road hexside as it enters the woods portion of the hex.

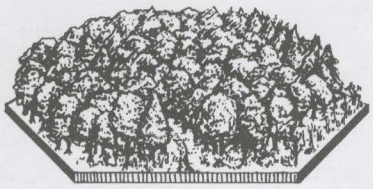
13.4211 A wreck or Immobile vehicle on a TB counter removes that TB, but does not prevent other fully-tracked vehicles from attempting to establish another TB in the same hex. In fact, multiple TB can always be placed in a hex, provided no two Trail Breaks mark the exact same hexsides. The benefits of a TB apply only to that TB counter; a unit entering a hex via one TB counter hexside may not exit it via another TB counter's hexside special rate. A fully-tracked vehicle which enters a woods hex containing more than one TB along a pre-existing TB but remains in that hex should be placed beneath the TB counter it used to show the hexside(s) it may use to exit that woods hex along a pre-existing TB.

13.4212 Infantry expend $1\frac{1}{2}$ MF and Cavalry expend 3 MF to enter woods via a TB. A TB does not alter the effect of woods (or rubble) on OVR attacks, LOS, or TEM. However, whenever Infantry/Cavalry specifically use a TB to enter a hex at a reduced MF cost (Rubble 24.71) or to escape minefield attack (24.74 & 28.61), it is subject to a special -1 Defensive First Fire DRM due to its restricted movement options, in addition to any applicable FFMO/FFNAM DRM. A unit can always avoid this DRM while entering a TB simply by not using the TB advantages. Usage of a TB is limited by one-way direction rules as if the TB were a One-Lane bridge (6.43).

13.43 AFV Riders are not allowed in a woods hex *[EXC: on a road or IN a stream]* even if on a TB.

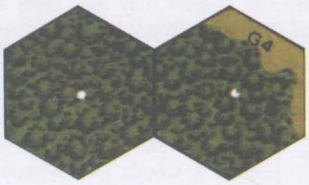
13.5 Woods may be Kindled on a DR ≥ 9 and Fire will Spread to a connected woods hex from an adjacent Blaze on a DR ≥ 7 (both subject to modification; see Section 25).





13.6 PATHS: A woods or brush hex containing a thin brown line such as 24W7 or 24W8 (or cB4 of *Deluxe ASL*) is said to be crossed by a path. A path allows entry of that hex through the path hexside by Infantry/Cavalry at a cost of one/two MF—not two/four. Otherwise, a path has no other effect on a hex (i.e., inside the woods contour the path is woods; outside the contour it is not).

© 2000 Multi-Man Publishing, LLC



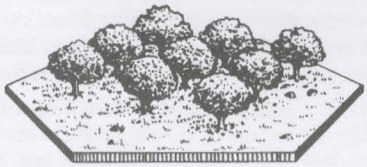
13.7 FOREST: A Forest exists only by SSR in an Interior woods hex (i.e., a woods hex composed of six woods or partial-woods hexsides). 5E3 and 5G5 are not Forest hexes; 5F4, 5J3, and 19O9 are. Forest rules are identical to normal woods rules except that they are a two level obstacle to LOS, their TEM is +2 rather than +1 (Air Burst effect remains -1), and vehicles may never enter them except along a road. However, vehicles may still pass other vehicles on the road at the customary double MP cost.

13.8 PINE WOODS: Pine woods represent an extensive stand of pine (evergreen) woods. Pine woods exist only by SSR and are treated exactly like normal woods except as stated otherwise.

13.81 OBSTACLE HEIGHT: Pine woods are a two-level LOS Obstacle.

13.82 MF COST: Infantry enter pine woods at a cost of 1½ MF (3 MF for Cavalry).



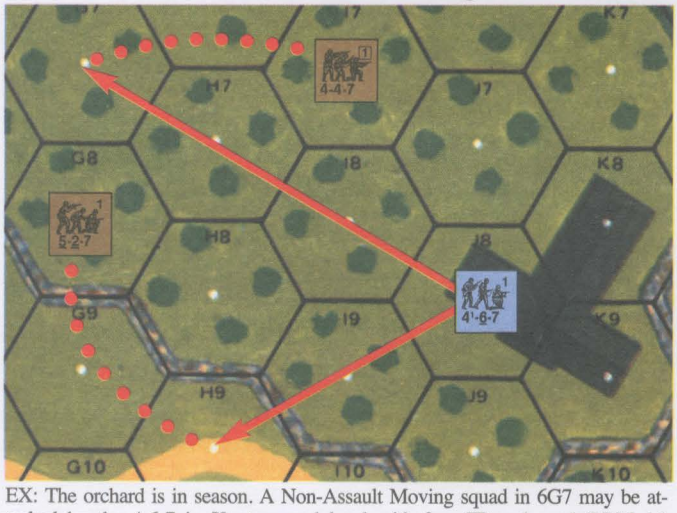


14. ORCHARD

14.1 An orchard represents a thinly wooded area devoid of undergrowth. Any hex or half-hex containing green clusters such as 6F5 or 8P0 is considered an orchard hex. It is not the orchard symbols themselves, but rather the entire orchard hex (B.6) inclusive of hexsides which affects any LOS drawn into or through it.

14.2 SEASONS: An orchard is not a LOS obstacle between same-level units. However, an orchard hex is considered a one level obstacle to any LOS to/from a higher elevation during the months of April through October, and consequently can create Blind hexes. Each out-of-season orchard hex presents a +1 Hindrance to any LOS drawn through it to/from a Location one level higher than the base level (not the obstacle height) of the orchard hex. However, if the LOS is drawn to/from a Location > one level higher than the base level of the out-of-season orchard hex, only one +1 Hindrance DRM applies, and only if the LOS crosses an orchard adjacent to the ground level target/firer.

14.21 SAME LEVEL HINDRANCE: Although an orchard does not block same-level LOS, it does Hinder it by adding a +1 DRM for every orchard hex *[EXC: see A6.7]* between firer and target.



EX: The orchard is in season. A Non-Assault Moving squad in 6G7 may be attacked by the 4-6-7 in J8 at ground level with four FP and a +1 DRM (-1 [FFNAM] +2 [LOS Hindrance for fire through two orchard hexes] = +1). The same squad cannot be seen from the 1st or 2nd level of J8 due to the Blind Hex created by the in-season orchard at H7. Now assume a Non-Assault Moving squad in H9. The 4-6-7 at ground level in J8 may fire at it with four FP and a +2 DRM (-1 [FFNAM] +2 [Wall TEM] +1 [LOS Hindrance for firing through an orchard hex] = +2). If the 4-6-7 were at level 1 in J8 it could not see the target at all due to the intervening same level obstacle (the I9 orchard). If the orchard was not in season a LOS from level 1 of J8 to H9 would exist but with a +2 DRM (-1 [FFNAM] +2 [wall] +1 [Hindrance] = +2). If the 4-6-7 were on the second level of J8 and the orchard was not in season, it could fire on the 4-4-7 with no DRM (-1 [FFNAM] +1 [out-of-season orchard adjacent to target; 14.2] = 0).

14.3 An orchard has no TEM for fire traced into it, but because it is not Open Ground it negates Interdiction/FFMO regardless of season.

14.4 The movement costs for entering an orchard hex are equal to those for Open Ground.

14.5 An orchard may be kindled on a DR ≥ 11 and Fire will spread to it from an adjacent Blaze on a DR ≥ 9 (both subject to modification; see Section 25).

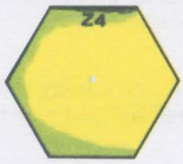


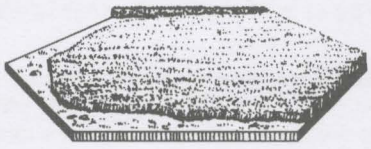


14.6 ORCHARD ROAD: A hex containing both orchard and road symbols (such as 23Q8) is actually a tree-lined road. Entrance of such a hex through a road hexside is identical to movement along any road. Hindrance rules do not apply to such hexes if that portion of the LOS from firer to target within those hexes never leaves the confines of the road depiction regardless of the relative elevations of the firer/target; in such cases, the -1 FFMO DRM applies to Infantry using the road to move. Otherwise, orchard roads are identical to orchards in every respect.

14.7 CACTUS PATCH: A SSR may specify that orchard hexes are cactus patch hexes instead. All orchard rules apply to such hexes, except that a cactus patch is a Half-Level Obstacle (thus affecting LOS just like rubble), has a +1 TEM, has Kindling and Spreading Fire numbers of 12 and 10 respectively, its MF/MP costs are *triple* those of an orchard, and it is never out of season; vehicles may gain WA (9.32) in a cactus patch hex.

14.8 OLIVE GROVE: A SSR may specify that orchard hexes are olive grove hexes instead. All orchard rules apply to such hexes, except that an olive grove also has a +1 TEM, its MF/MP costs are *double* those of an orchard, and it is never out of season; vehicles may gain WA (9.32) in an olive grove hex.





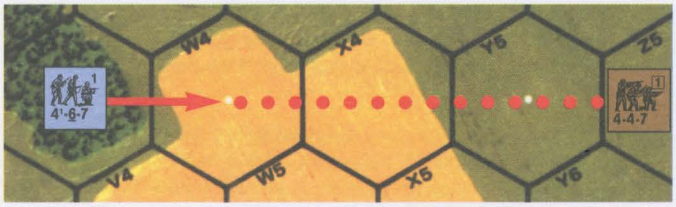
15. GRAIN

15.1 Grain represents a cultivated field with any of a variety of standing crops. Any yellowish or buff colored area such as 3Z4 is considered grain.

15.2 Grain is considered a Hindrance to same-level LOS by adding a +1 DRM for every grain hex *[EXC: see A6.7]* through which that LOS crosses the grain depiction between the firer and target.

© 2000 Multi-Man Publishing, LLC

15.3 Grain has no TEM, but because it is not Open Ground it negates Interdiction/FFMO for fire traced into or through it.



EX: The 4-6-7 squad in 4V3 may Defensive First Fire at the Non-Assault Moving 4-4-7 in W4 with eight FP (PBF) and a -1 DRM (FFNAM). If fired on in X4, the 4-4-7 would be subject to four FP and 0 DRM (-1 [FFNAM] +1 [Hindrance] = 0). The same target in Y5 would be subject to four FP and a +1 DRM (-1 [FFNAM] +2 [Hindrance] = +1).

15.4 The MF costs for entering a grain hex are $1^1/_2$ MF for all Infantry, Cavalry, and Horse-Drawn units.

15.5 Grain may be kindled on a DR ≥ 10 and Fire will spread to it from an adjacent Blaze on a DR ≥ 6 (both subject to modification; see section 25).

15.6 SEASON: Grain does not exist and is treated as Open Ground outside its growing season which, if otherwise undefined, extends from June to September (inclusive). The effect of plowed fields in April and May retains the increased movement cost of grain, but is considered Open Ground for all other purposes.





16. MARSH

16.1 A marsh represents pockets of alternating ankle-to-waist high water and swampy ground overgrown with vegetation. Any hex whose center dot is inside a dark bluish-green background containing black swamp symbols such as 7P6 or 13X7 is a marsh hex. Any unpossessed portaged equipment in a marsh hex is eliminated.

16.2 A marsh hex is a Hindrance to same-level LOS and causes a +1 DRM for every marsh hex *[EXC: A6.7]* between same-level target and firing hexes.

16.3 A marsh hex has no TEM for fire traced into it, but because it is not Open Ground it negates Interdiction/FFMO for fire traced into it.

16.31 Any HE attack into a marsh hex *[EXC: vs a bridge or units on the bridge]* is halved due to the muffling effects of soft ground/water on the explosion.

16.32 Only the inherent FP of Infantry, their LATW, any LMG, DC, FT or inherent SW may be used from a marsh hex and are resolved as Area Fire *[EXC: a unit on a bridge may fire from a marsh hex with no such detriment]*.

16.4 Infantry/Cavalry may enter a marsh hex only at the cost of their entire MF allotment (inclusive of a broken unit's RtPh allotment); a marsh hex cannot be entered during the APh, nor can it be entered via Low Crawl (A10.52) *[EXC to all: along a bridge]*. Entry of a marsh hex from a lower elevation is a Minimum Move (A4.134).

16.41 No non-amphibious vehicle, towed or pushed ordnance may enter a marsh hex unless on a bridge.

16.42 AMPHIBIANS: Amphibious vehicles may cross any hexside containing Open Ground/water/marsh into a marsh hex during the MPh as if it were entering a water hex, but must pay double the normal amphibious MP (D16.2) cost (i.e., two MP) to do so; such MP expenditure includes the cost of both the hexside terrain and of moving to a higher elevation. Boats cannot be used as conveyance in a marsh hex unless the hex has been flooded (16.6), in which case it is treated as a river hex.

16.43 BOG: Any ground level or level -1 hex adjacent to a marsh/mudflat hex is a Bog hex requiring a Bog Check of any vehicle entering it along a non-road hexside *[EXC: 16.8]*.

16.5 No Fortifications are allowed in a marsh unless on a bridge (6.6).

16.6 WATER DEPTH: The scenario-defined water depth of a stream/river can alter the effects of a marsh. When a stream/river is flooded, all marsh hexes adjacent to or connected to the stream/river by a continuous string of marsh hexes are treated as stream/river hexes instead (16.43 still applies as if they were Marsh). If the stream/river is dry/fordable respectively, they are treated as mudflats.

16.7 MUDFLATS: A mudflat is marsh with a lower water level. All marsh rules apply except where modified below.

16.71 Infantry/Cavalry may enter a mudflat hex at a cost of two MF. Unpossessed portaged equipment in a mudflat is not lost.

16.72 Amphibious vehicles may not enter a mudflat in the water movement mode but must use land movement capabilities and roll for Bog instead.

16.8 WEATHER: Marsh hexes are treated as Open Ground hexes during scenario-defined Snow, Deep Snow, or sub-zero temperatures (16.43 does not apply).





17. CRAG

17.1 A crag represents rough terrain strewn with boulders, crevices, and the debris of numerous rockslides. Any hex containing four gray, irregular boulder symbols—such as 15X9 or 9H8—is a crag hex. It is not the boulder symbol itself, but rather the entire crag hex (inclusive of hexsides) which affects any LOS drawn into or through it.

17.2 A crag is not a LOS obstacle, but it does Hinder same-level LOS by adding a +1 Hindrance DRM for every crag hex *[EXC: A6.7]* between the firer and target.

17.3 A crag hex has a TEM of +1 to any fire traced into it.

17.4 It costs Infantry two MF and Cavalry/animals four MF to enter a crag hex. Vehicles and $^5/_8$" ordnance counters may never occupy a crag hex *[EXC: dm mortars may be portaged into/out of a crag hex, and may also be assembled/fired from it]*.

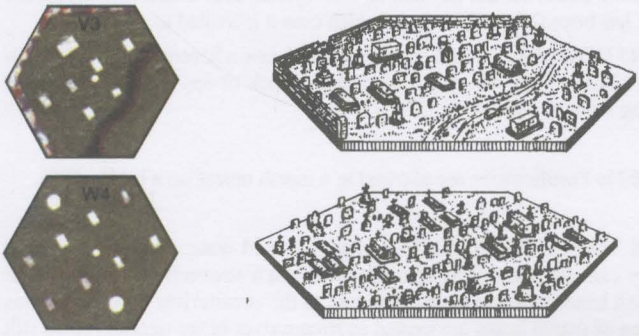
17.5 Fortifications other than Wire are not allowed in a crag hex.

18. GRAVEYARD

18.1 A graveyard represents a West European style cemetery with densely concentrated stone gravemarkers and mausoleums. Any hex containing gray/white rectangular shapes—such as 12W4 or 21L5—is consid-

© 2000 Multi-Man Publishing, LLC

ered a graveyard hex. It is not the graveyard symbols, but rather the entire graveyard hex (inclusive of non-wall/hedge hexsides) which affects any LOS drawn into or through it.



18.2 A graveyard is not a LOS obstacle, but it does Hinder same level LOS by adding a +1 Hindrance DRM for every graveyard hex *[EXC: A6.7]* between the firer and target.

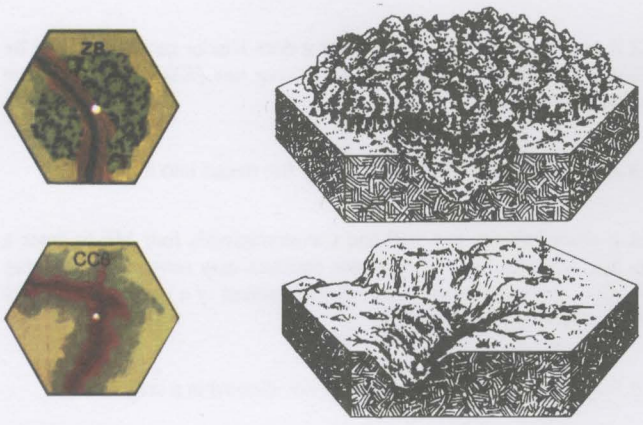
18.3 A graveyard hex has a TEM of +1 to any fire traced into it.

18.4 Movement costs for entry of a graveyard through a graveyard road hexside (a graveyard road is the thin dark brown line passing through every graveyard hex of board 12 except 12W4) are different than those listed on the Movement Costs Chart for roads.

18.41 Infantry enter a graveyard at a MF cost of one regardless of whether they enter via a graveyard road hexside. All vehicles may enter a graveyard through a graveyard road hexside at a cost of one MP (two MP if BU) and without checking for Bog. Otherwise, only fully-tracked vehicles may enter a graveyard and they must expend half their MP allotment plus check for Bog (D8.21) with a +3 DRM *[EXC: motorcycles may enter via a non-road hexside at a cost of four MP, except across a wall or hedge]*.

18.42 A graveyard road does not bestow any bonus for movement through a graveyard road hexside (3.4)—either alone or in combination with other road movement.

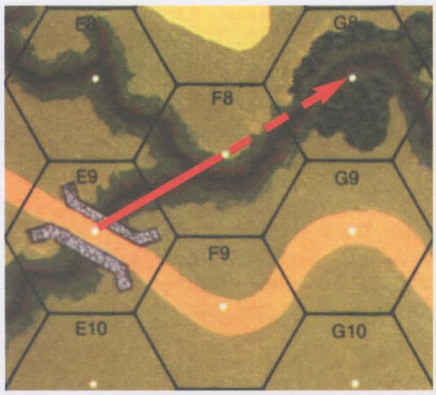
18.43 No ordnance may be moved into a graveyard while in the form of a $^{5}/_{8}$" counter, except via a graveyard road hexside. Dismantled mortars may be portaged into/out of any graveyard hex and may also be assembled/fired from one.



19. GULLIES

19.1 Gullies are relatively narrow slits carved into the earth by once powerful streams. A hex such as 12CC6 containing a thin, meandering black line enclosed in a light brown background which, in turn, is enclosed in a dark green background is a gully. Unlike a stream (even if dry), the gully symbol need only appear in a hex for it to be considered a gully hex. A gully hex is treated as a gully regardless of the other terrain in the hex, although units in a gully bridge hex (20T8 or dH1) are assumed to be on the bridge and not IN the gully unless they are beneath a bridge counter (which must be placed in the hex to denote such status).

19.2 A gully is usually a level -1 Depression hex (A6.3), although it is always a -1 level Depression; i.e., a unit IN it is one level lower than it would be if the gully were not present. A unit IN a gully cannot see any other Depression hex unless it is adjacent *and* connected by a Depression hexside, or the LOS can be drawn to another gully hex without leaving the combination brown, dark green background. See 19.5 for LOS to a gully that crosses a Crest Line.

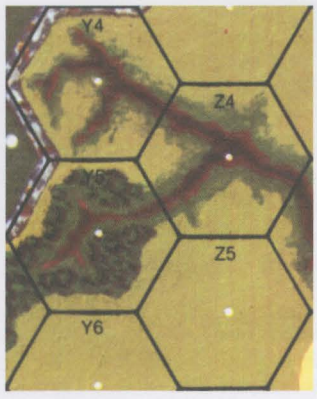


EX: A unit IN 12E8 cannot see a unit IN E9 beneath the bridge because although adjacent, there is no connecting gully hexside. A unit IN F8 can see a unit IN G8 or IN E9 because they are adjacent and connected by a gully hexside, but a unit beneath the bridge IN E9 cannot see a unit IN G8 because the LOS between the two hex centers extends outside the gully background coloration in F8 *and* the two hexes are not adjacent.

19.21 A combination gully-woods hex (5Z8) is still a one level obstacle, and a combination gully-brush hex (12CC9) is still a 0 level LOS Hindrance; assuming the woods/brush is on both sides of the gully depiction, the same is true at level -1.

19.3 Barring other terrain in the hex, a gully is considered Open Ground for TEM and Rout purposes, provided a LOS INTO it exists (see bridges; 6.32).

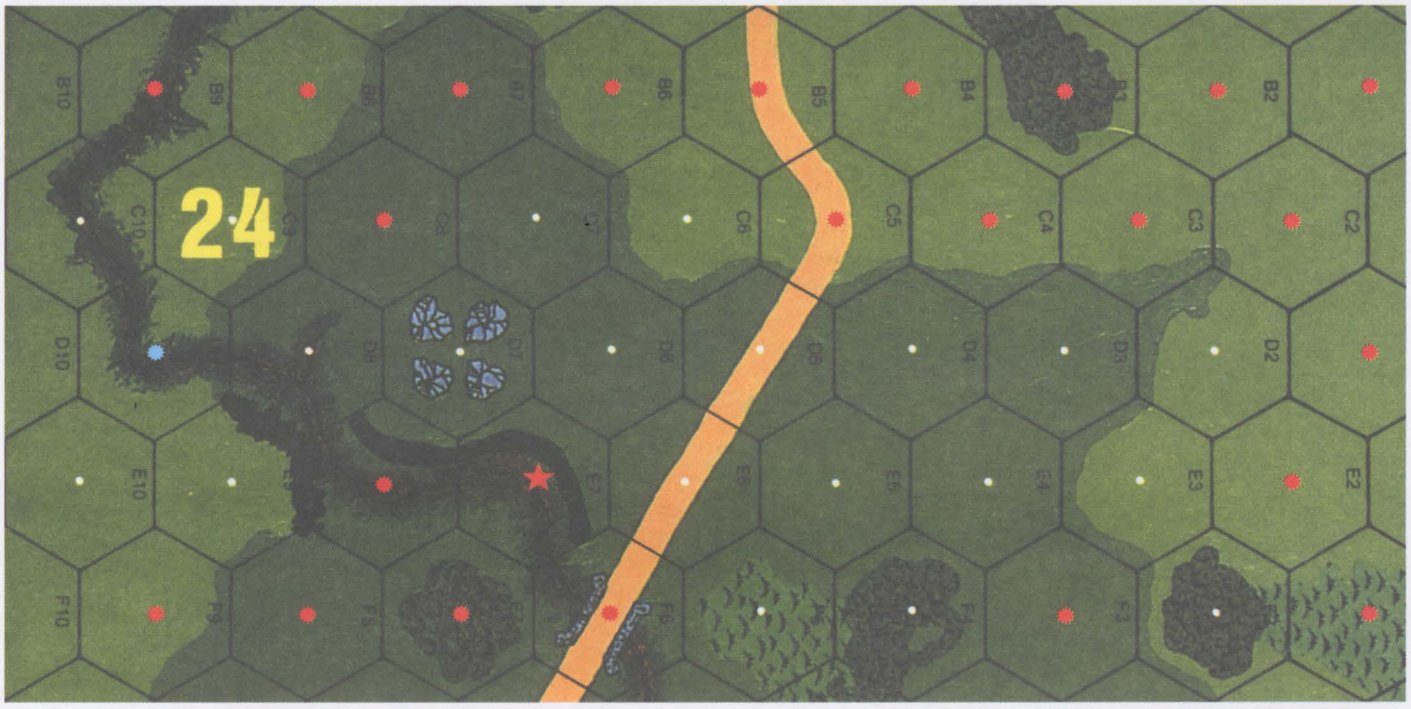
19.4 Infantry move INTO a gully hex at a cost of two MF regardless of whether the move is made through a gully hexside or not. Movement costs for entry INTO a gully hex containing other terrain types are cumulative (i.e., it costs four MF to enter a gully-woods hex). There is no cost for leaving a gully hex other than the doubling of MF (or the increase of four MP) when moving to a higher elevation *[EXC: Abrupt Elevation Change; 10.5]*.



EX: It costs Infantry four MF to move from IN 12Z4 INTO Y5, and two MF to move from Y5 to Y6. It costs four MF to move from IN Y5 INTO Y4 (2 MF to cross the intermediate level + 2 MF to enter the gully), and six MF to move from Y4 to Y5 (2 MF to cross the Intermediate level and 4 MF to enter the woods gully), because each of these moves constitutes an Abrupt Elevation Change (10.51). Crossing the higher elevation hexside makes the unit vulnerable to Snap Shots along that hexside.

19.5 HILL DEPRESSIONS: The gully on board 24 changes elevation between hexes D8 and D9. D9 is termed a Hill Depression hex, since it contains both a Depression and a Crest Line. Hexside D8-D9 is termed a Crest Line-Depression hexside, which is always assumed to be at the same elevation as a unit IN the higher level Hill Depression hex.

© 2000 Multi-Man Publishing, LLC

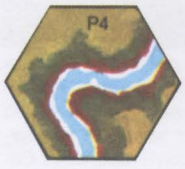


EX: 24C9, C10, D10, E10, and E9 all have a LOS INTO D9 (A6.3). However, C6, D2, E3, and F2 also have a LOS INTO D9, since these LOS enter D9 via its D8-D9 Crest Line-Depression hexside and do not cross any level 0 (i.e., Crest status level) terrain in D9. There is no LOS from B6 since this LOS crosses a vertex of the D8-D9 hexside. All the hexes in the illustration have a LOS to Hill Depression hex D9 except those with red center dots. E7 has a LOS only with a Crest unit, not a unit IN E7.

19.51 LOS can be traced INTO a Hill Depression hex from an elevation ≤ that of a unit in that hex, provided the otherwise unblocked LOS enters that hex via its Crest Line-Depression hexside (exclusive of vertices) and does not cross any Crest status level (20.91) terrain in that hex (prior to reaching that hex's center dot).

EX: A unit IN 24D9 can be seen from all level -1 hexes in hex row D, and also from C10, E4, E5, E6, F4, F5, and the Crest Status level of E7 (along Crest hexside E7-F7). A unit IN E7 cannot have a LOS into D9 due to the cliff hexside in E7 (11.21). A unit in E8 cannot see INTO D9 because its LOS crosses the vertex of the D8-D9 Crest Line-Depression hexside—as does the LOS from C8.

19.52 The ability of a unit at ≥ the Crest status level of a Hill Depression hex to have a LOS INTO that hex is governed by A6.3 *[EXC: such a unit that is non-adjacent to a Hill Depression hex can ignore the A6.3 "one level per hex of range" requirement for having a LOS INTO that hex if his otherwise unblocked LOS enters that hex in conformity with 19.51].*

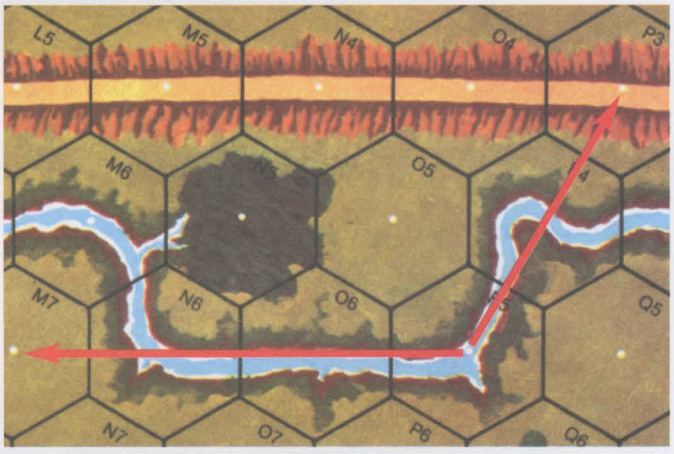




20. STREAMS & CREST STATUS

20.1 A stream is a gully containing a small rivulet. A hex such as 13P4 containing a thin meandering blue line enclosed in a layered white, brown, and dark green background which extends through two hexsides of the hex is a stream hex. 13G4 and I6 are not stream hexes because the stream symbol crosses only one hexside therein. Non-stream remnants such as those in 22J0 and X10 do not block or impede Bypass movement of the J0-K1 hexside.

20.2 A stream is usually a level -1 Depression hex (A6.3), although it can exist at one level lower than that of any surrounding terrain. A unit IN a stream cannot see any other Depression hex unless it is ADJACENT and connected by a stream hexside, or the LOS can be drawn to another stream hex without leaving the layered blue-white-brown-dark green stream depiction. A flooded stream is usually level 0; see 20.44.



EX: A unit IN 13P5 can see P3, N4, O4, Q3, N6, M7, and all adjacent hexes, but cannot see M6 or Q4 because the LOS thereto is blocked by higher level Open Ground depictions.

20.3 Barring other terrain in the hex, a stream is considered Open Ground for TEM and Rout purposes, provided a LOS to it exists (see bridge; 6.32).

20.4 DEPTH: The depth of water in a stream is the only thing which distinguishes it from a gully hex. A stream may be defined as one of four types: dry, shallow, deep, or flooded. If undefined by SSR, a stream is

© 2000 Multi-Man Publishing, LLC

considered to be shallow. In DYO scenarios where this information is unknown, it can be resolved with a single dr as per the following chart. This dr is modified by the current EC drm (25.5).

dr	Depth
≤ 1	Flooded
2-3	Deep
4-5	Shallow
≥ 6	Dry

20.41 DRY: If a stream is dry, it does not exist; rather, it is considered a gully for all purposes, and all marsh hexes on the same board are considered mudflats.

20.42 SHALLOW: If a stream is shallow, Infantry/Cavalry enter at a cost of three MF regardless of whether the move is through a stream hexside or not.

20.43 DEEP: If a stream is deep, Infantry/Cavalry enter at a cost of four MF and become CX (A4.72 would apply to an advance entry)—regardless of whether the move is through a stream hexside or not, or whether the unit was previously CX or not.

20.44 FLOODED: If a stream is flooded, it is one level higher than it would normally be (i.e., usually level 0), and is treated as a flooded pond. All mapboard-depicted ponds in a scenario that has a flooded stream are also one level higher than normal, as per 21.21. See 16.6 for a flooded stream's effect on marsh.

20.45 EXIT: There is no cost for leaving a stream hex other than the normal doubling of MF (or a four MP increase) when moving to a hex of higher elevation *[EXC: Abrupt Elevation Change; 10.5]*.

20.46 VEHICLES: Vehicles transit a stream hex as if it were a gully, regardless of water depth *[EXC: Flooded]*. All vehicles leaving a stream hex via a higher elevation hexside are subject to Bog in that stream hex. Motorcycles may not drive into a deep stream. Wrecks do not appear in a flooded stream.

20.5 No Fortifications are allowed in a stream except Wire/minefields, and even these are not allowed if the stream is deep or flooded.

20.6 FIRE: Only the inherent FP of Infantry, their LATW, inherent SW, DC, LMG, or FT may be used while IN a shallow or deep stream and is resolved as Area Fire. The only other weapons which may fire IN such a hex must be vehicular-mounted.

20.7 FRIGID/FROZEN: If a stream is designated as frozen, it is treated as a dry stream regardless of depth *[EXC: a flooded stream is still one level higher; 20.44]*. If a non-dry stream is not frozen, but snow is present, the stream is a frigid Water Obstacle. If Infantry/Cavalry units enter a frigid Water Obstacle without a bridge they are Replaced by the next lower Class unit or Disrupted as per A19.12-.13 or Casualty Reduced if incapable of both Replacement and Disruption (e.g., heroic or unarmed units). Any boat capable of conveying that size unit can be used to cross a frigid stream at the normal MF cost of the Passenger for entry of that type of stream. There are no loading/unloading costs or other boat rules to consider when crossing a stream unless it is flooded.



20.8 FORDS: A ford represents an area within a stream or gully hex where the Depression's sides have a gentler slope and the streambed itself is level and lies near the surface, but the ford is still at the same elevation as that stream hex, and is treated as a stream/gully hex except as amended below. Fords are not printed on the mapboard, but are represented by ford counters which can be placed on a stream or gully hex only by SSR.

20.81 Movement into a ford stream hex from any direction is treated as if the water depth were one classification shallower (dry rather than shallow; deep rather than flooded).

20.82 Movement from a ford hex does not require a Bog DR even if the move is across a higher level hexside, but does require the normal additional MF/MP costs if moving to a higher elevation.

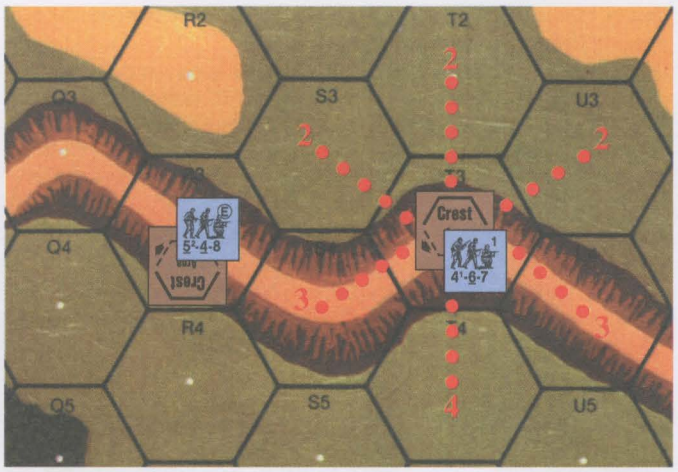


20.9 CREST STATUS: Crest status can be gained by Infantry in any Depression hex that contains neither a ford nor a bridge. However, Crest status is never allowed along a Depression Cliff hexside (such as 24E7-E6). One Crest counter may service all units in a hex or multiple Crest counters can be placed in a hex to allow different units Crest status in different directions.

20.91 Any Good Order Infantry already IN a Depression may (if capable of Advance) claim Crest status in that same hex during its APh by remaining in the same hex and placing a Crest counter beneath it, or by expending two MF in its MPh to do so. Good Order Infantry outside a Depression may claim Crest status in the Depression hex it enters along the hexside it enters by expending one less MF than the normal COT of that hex but its Crest counter must be placed so that the middle of the three hexsides it could conceivably protect is the hexside it crossed. Therefore, this option could not be used when entering a Depression via a Depression hexside. Units may begin a scenario already set up in Crest status. Infantry in Crest status are considered entrenched one level higher than the Depression against all Direct Fire attacks across any of the front three hexsides of that Depression hex (as identified by placement of the Crest counter) which are not crossed by a Depression hexside. Crest counters must be placed so that the middle of the three hexsides it could conceivably protect does not cover a hexside intersected by the Depression terrain. Once placed, a Crest counter cannot be altered until it is removed.

EX: Entry of 14T3 from T2 (see the 20.92 illustration) costs two MF unless the unit claims Crest status in T3, in which case it costs only one MF.

20.92 TEM: The entrenchment benefits (27.3) of Crest status do not apply to indirect Fire or OVR, or to Direct Fire from any position that has a LOS (A6.3) INTO the Depression hex, or to fire at the Crest target which is not traced through one of the protective Crest hexsides. All fire traced INTO a Depression hex affects units both IN the Depression and units in Crest status in the same hex with the same DR. However, same-level, non-adjacent Direct Fire which is valid against Crest status Infantry does not affect units IN that Depression.



EX: The crest 4-6-7 in 14T3 is a ground level target. It is entrenched vs attacks through S3, T2, and U3 hexsides, but not from S4, T4, or U4 hexsides. The 4-6-7 can see the 5-4-8 in R3 but only because both are in Crest status; if either or both were IN their respective hexes they could not see each other because of the intervening ground level terrain along the S3-S4 hexside which would block their LOS. The 5-4-8 is entrenched only against fire across the R4 and Q4 hexsides (including fire from hex S5), since S4 contains a connecting Depression hexside.

20.93 MPh/APh: Infantry may not move directly from one Crest status to another (even in the APh). Crest Infantry are always considered on one specific side of the Depression terrain feature as indicated by the placement of the Crest counter beneath them with the word "Crest" on the occupied side of the Depression. Crest Infantry may exit the Depression hex to a non-Depression hex along the same side of the Depression which they occupy as if they were leaving a foxhole (one MF & COT or normal

© 2000 Multi-Man Publishing, LLC

APh capability). Crest Infantry moving to any other hex must first move (or advance) out of Crest status within the same hex they presently occupy as if they were entering it from an adjacent non-Depression hex.

EX: In the previous diagram, it will cost two MF (shown in red) for the 4-6-7 to move out of Crest status plus another two MF to enter T4 (or another one MF to enter S4 or U4), whereas it would cost only two MF to move directly from Crest status to S3, T2, or U3. In all cases, it could be fired on in T3 without benefit of entrenchment before entering the adjacent hex. It would have to become CX (A4.72) to advance into T4, but could advance into the other adjacent hexes without such a penalty.

20.94 FIRE/CC: Crest Infantry firing at any target not within their protected Crest front must fire as Area Fire. Crest Infantry in CC are subject to a -2 DRM for all attacks against them and a +2 DRM for any attacks they make (unless the attackers had just entered the hex through a protected Crest hexside), but if they survive their initial round of CC, they must immediately drop their Crest status if held in Melee.

20.95 SW: Other than their inherent FP, a Crest Infantry unit may fire only LMG, DC, LATW, FT/inherent SW. Any unpossessed SW previously in Crest status falls INTO the Depression hex.

20.96 BROKEN UNITS: If broken, Crest Infantry must leave their Crest status during the following RtPh.

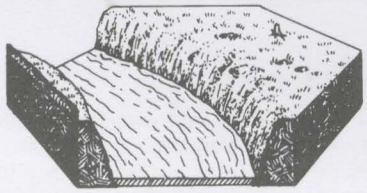
20.97 FORTIFICATIONS: Fortifications in a Depression hex are assumed to be IN the Depression rather than in Crest status.

20.98 STACKING: Despite the different elevation levels of units IN a Depression and those in Crest status, both count toward the total hex stacking limits of that hex.

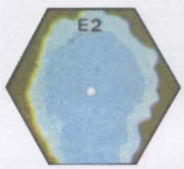
21. WATER OBSTACLES

21.1 A Water Obstacle is a body of water large enough to stop the normal movement of men and vehicles, which cannot enter without special assistance. Any non-stream hex whose center dot is emplaced in a blue background is a Water Obstacle hex. There are four types of Water Obstacles—all of which have very similar characteristics.





21.11 CANAL: A canal is a man-made waterway one hex in width used for commercial transport between larger natural waterways and flows into a river or off the board end edge. 23H2 is an example of a canal hex.





21.12 RIVER: A river is a larger waterway usually of multi-hex width, which extends in a continuous flow of water hexes off the board end. 7E2 is an example of a river hex.



21.121 CURRENT: At the outset of any river scenario, the Current direction and force should be defined. In DYO scenarios where these factors are not known they are resolved with a dr. Place the Current counter in any applicable direction. If the dr is odd, reverse it; if even, leave it as is. This same dr, modified by the current EC (25.5), determines the Current force as per the following table.

dr	Force
≤ 1	Heavy
2-5	Moderate
≥ 6	Slow

Place the Current counter in a river hex proper side up as a constant reminder of prevailing Current conditions. Current does not affect bridges or any river hex bordered on opposite sides by non-island ground (marsh inclusive) hexes (EX: 7CC4, 7K2, 7H1). Current affects fording Infantry only in that it defines "downstream". Both moderate and heavy currents affect boats and amphibious vehicles, except during the Player Turn in which they are launched or landed; slow current has no effect. Boats and amphibious units IN a river hex with moderate current must drift one hex downstream during *their* APh; in a heavy current they drift one hex during *each* APh. If there is more than one adjacent downstream hex to drift to, power boats and non-Immobile amphibious vehicles may choose the drift hex if manned by non-broken/shocked/stunned PRC. The drift hex of all paddled or abandoned boats, and abandoned or shocked/stunned/immobilized amphibians, is determined by dr: 1-3 lower hex coordinate, 4-6 higher hex coordinate. A unit does not drift into/out of marsh.

21.122 DEPTH: At the outset of any river scenario the depth should be defined as fordable, deep, or flooded. If fordable, Infantry units may attempt to ford without use of boats. Wrecks appear IN water hexes only in fordable rivers. If undefined by SSR, a river is considered to be deep. In DYO scenarios where this information is not known it can be resolved with a dr: ≤ 1 = flooded, 2-5 = deep, ≥ 6 = fordable. This dr is modified by the current EC drm (25.5). A flooded river transforms adjacent marsh to river terrain (16.6); a fordable river transforms such marsh to mudflats (16.7).





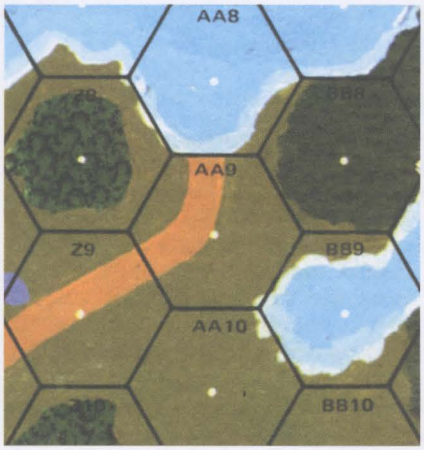
21.13 POND: A pond for game purposes is essentially a land-locked river, lacking the natural flow patterns of a river because it is surrounded by land on all sides. 7CC9 and 17N7 are examples of a pond hex. No dr is made to determine the depth of a pond; 21.2 applies instead. A pond can exist without containing a hex center dot (such as the one in 24L9-M9), but in this case the hex is not considered a Water Obstacle hex (although the pond hexside is a Water Obstacle) and can be entered across any non-all-water hexside. An amphibious vehicle attempting to cross any all-water hexside into a non-Water Obstacle hex *[EXC: marsh; 16.42]* must expend one amphibious mode MP plus the normal non-amphibious MP cost of that hex. Wrecks appear in a pond only if it is defined by SSR as fordable.

21.14 LAKE/OCEAN: A lake/ocean is a body of water so large that it extends unimpeded across the entire length of a mapboard and covers that mapboard edge with Water Obstacle hexes.

21.2 All Water Obstacles are one level beneath the surrounding terrain (usually level -1), so a Crest Line is formed where a Water Obstacle hex meets a ground level or higher terrain feature *[EXC: 21.21]*. Therefore a unit IN a Water Obstacle hex may trace a LOS into only the initial hex of each level above it; however, this LOS can be blocked by other LOS requirements (such as distance from a Crest Line; 10.23). Similarly, a unit on a higher level may trace a LOS INTO a Water Obstacle hex only if between it and the Water Obstacle hex, there are no other intervening hexsides (other than its own) of equal or higher elevation to it.

21.21 If a river is defined as flooded it is one level higher than normal (i.e., usually level 0). All ponds in a scenario that has a flooded river are also one level higher than normal. Such increases in the level of a Water Obstacle (or stream; 20.44) do not prohibit normal movement under a bridge (21.4) in that water hex. (See Example at the top of the next page.)

© 2000 Multi-Man Publishing, LLC

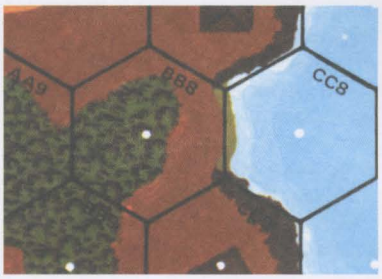


EX: 7AA10 would have to be at level 1 or higher to give it a view INTO the river through AA9. However, if the river were defined as flooded, both AA8 and BB9 would be at ground level (and BB8 would be considered a river hex; 16.6).

21.3 Provided a LOS to it exists, a Water Obstacle is considered Open Ground for TEM and Rout purposes (see bridges; 6.32).

21.4 Entrance of a Water Obstacle hex is usually limited to units on a bridge, boat, or amphibious vehicle. Otherwise, entrance is limited to swimming or fording by Personnel units. The rules for swimming and boats are highly specialized and therefore described separately in Chapter E.

21.41 FORDING: Fording may be attempted by Infantry/Cavalry only in river hexes defined as both fordable and non-frigid. Pushing motorcycles/Guns is not allowed while fording. Entrance of such a hex costs the unit's entire MF allotment and is considered Hazardous Movement for as long as the unit is in that hex. There is no penalty for leaving a Water Obstacle hex other than the doubling of MF for each higher elevation entered *[EXC: Abrupt Elevation Change; 10.5]*. Fording units may not move upstream directly against a heavy current. Fording units are immune to Pin effects. A Water Obstacle cannot be entered (via fording) during the APh, but can be left in the APh. Mortars, MMG, and HMG must be dm to be portaged by fording Infantry/Cavalry.



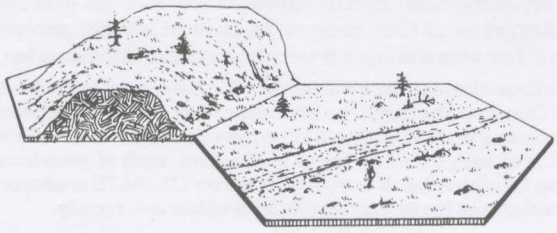
EX: Movement from 8CC8 across the Double Crest Line to the wooded, level 1 hex BB8 requires six MF (2 [to ascend the intermediate level; 10.51] + 4 [to enter a higher wooded hex; A4.133] = 6).

21.42 Fording units may fire only their inherent FP and only as Area Fire (which would be halved again for AFPh fire).

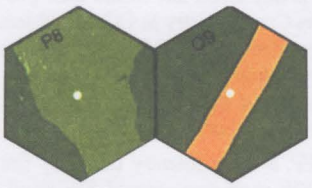
21.43 Fording units which break may not use Low Crawl and are therefore very vulnerable to Interdiction. Broken units in a Water Obstacle must rout; they may not remain in their current Location even if Disrupted.

21.5 No Fortifications are allowed in a Water Obstacle.

21.6 ICE: All Water Obstacles (except an ocean) freeze in sub-zero temperature scenarios. When frozen, Water Obstacle hexes are treated as Open Ground for all purposes. Ice is removed from any hex in which an Original HE attack DR scores a KIA on the IFT or when the ice collapses. Mark such hexes as clear water by the placement of a coin or a Collapsed Ice counter (available in *ARMIES OF OBLIVION*). The ice may collapse under the weight of any vehicle of ≥ five tons as per the rules for bridge collapse (6.42; treating the Weight Limit for all ice hexes as equal to that of the highest weight sustained thus far by any ice hex), causing the elimination of all units in that hex and all future vehicles ≥ that weight venturing onto the ice. Wire and unhidden mines are the only Fortifications allowed in an ice hex.



22. VALLEY



22.1 A valley occurs at an elevation below ground level and represents an area much larger than a Depression. A valley is depicted by dark green background in obvious contrast to the lighter green used to represent ground level Open Ground on the same board. 24Q9 is an example of a valley hex.

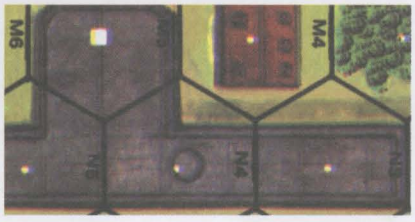
22.2 A valley hex is at level -1. Any terrain in a valley hex rises (or drops, in the case of gullies) normally from this level to form new height equivalents; e.g., a woods hex which is normally a level 1 obstacle, becomes a level 0 obstacle in a valley. A "hill" Crest Line is formed in every non-Depression hex where two different elevation levels meet, and the LOS rules pertaining thereto are handled in the same manner as those for hills. When not dealing with other boards containing hills, players may find it easier to visualize LOS relationships by treating all valley terrain as level 0 and the light green hexes as level 1 hills.

22.3 Barring other terrain in the hex, a valley is considered Open Ground for TEM and Rout purposes, provided a LOS to it exists.

22.4 Movement costs for entering a valley hex are solely dependent on the other terrain in the hex (except for bicycles [D15.81] and ski units which may gain MF by moving to a hex of lower elevation).

23. BUILDINGS

23.1 Buildings represent man-made dwellings of various sizes, shapes, and construction. Any hex containing one or more brown or gray rectangular overview building depictions is a building hex—even if the hex center dot does not touch that building depiction.



EX: 1M4 is a building hex. M5 is also a building hex but is part of the same building as N3, N4, and N5 because all four building hexes are connected by building hexsides. Unless reference is specifically made to a "hex" of a building, reference to building M5 also includes hexes N3, N4, and N5.

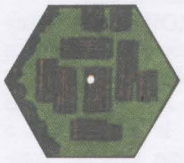
23.2 A building is an obstacle to LOS, and its elevation is dependent on the combination of its height and the elevation level it occupies. For example, a Single Story House on a level 0 hex is a level 1 obstacle; a Single Story House in a valley is a level 0 obstacle; and a Single Story House on a level 2 hill is a level 3 obstacle. The height of the building itself is based solely on the number of hexes it occupies and the presence or absence of a stairwell symbol within the building. A stairwell symbol is the small white square which replaces the hex center dot of some building hexes. Remember that either the firing or target unit needs an elevation advantage over the height equivalent of any obstacle to see past that obstacle to a lower level, but an intervening same-level obstacle never blocks the LOS of same-level units.

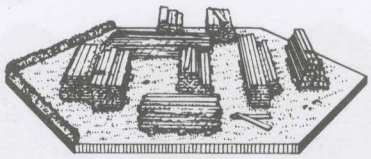
© 2000 Multi-Man Publishing, LLC



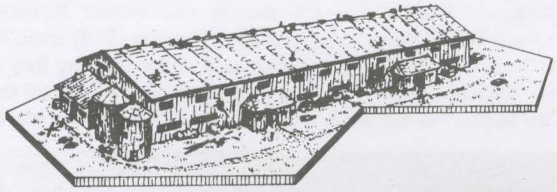


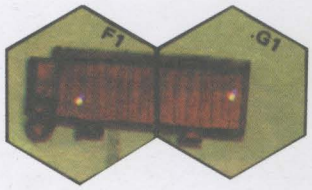
23.21 SINGLE STORY HOUSE: All single hex buildings which do not contain a staircase symbol are considered one level obstacles to LOS. All units in such buildings are at the level of the other terrain in the hex. 1D4 is an example of a Single Story House.



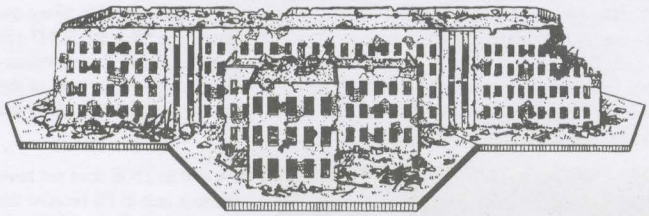


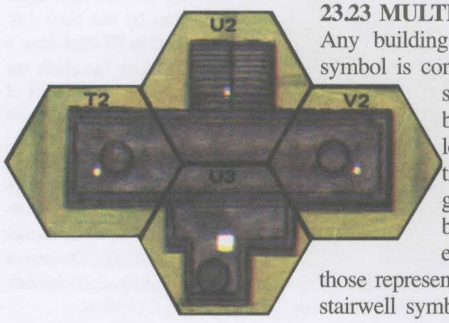
23.211 LUMBERYARD: Any hex containing numerous brown rectangular striped shapes is a lumberyard hex. Hex 24Q6 (and cD4 of *Deluxe ASL*) is an example of a lumberyard hex. A lumberyard is considered identical to a wooden Single Story House in all respects except for Rout (A10.51), Rally (A10.61), and EC DRM for Kindling/Spreading (25.5) purposes, the ability to fire mortars and AA Guns therefrom, and the hex may not be OVR by vehicles. Vehicles may enter a lumberyard only via Bypass *[EXC: motorcycles may be pushed]*. Paths never exist through a lumberyard.





23.22 TWO STORY HOUSE: A multi-hex building which contains no stairwell symbol is considered a $1^1/_2$ level obstacle to LOS despite also having another vertical level in each hex besides the ground level in the form of a level 1 capacity. All buildings of this type have an inherent stairwell present in each hex to allow movement between levels. Units on a Level 1 counter are considered to be at a level one higher than the surrounding terrain even though the building itself is only $1^1/_2$ levels higher than the surrounding terrain. 1F1-G1 is an example of a two story house.



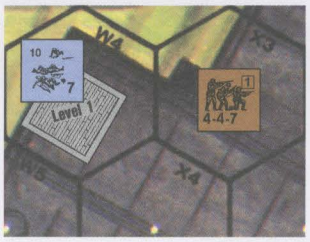


23.23 MULTI-STORY BUILDING: Any building containing a stairwell symbol is considered a $2^1/_2$ level obstacle to LOS. Such buildings contain both a level 1 and level 2 Location in addition to the ground level hex. Such buildings have no inherent stairwells other than those represented by the white square stairwell symbol. Movement between levels inside the building may only be accomplished in a stairwell hex. 1U3 is an example of a multi-story building.



23.24 THIRD LEVEL STRUCTURES: A building with three levels constitutes a $3^1/_2$ level obstacle, exists only by SSR, and is identified thereafter by placement of a Level 3 counter on an appropriate hex. The Level 3 height can apply to either the entire Building or a specific hex of that building as specified by SSR. If a SSR or the building itself does not specify the presence of a stairwell, each hex of the building containing a third level Location is assumed to contain an inherent stairwell.

23.25 ADJACENT BUILDING HEXES: A unit in a building is ADJACENT to an adjacent building level of the same building only if both are either on the same level *[EXC: Rowhouse; 23.71]*, or are vertically connected by a stairwell (printed or inherent). Otherwise, no LOS exists between adjacent units in the same building, nor does a LOS exist between non-adjacent units in the same building, unless a LOS clear of the building depiction can be traced through intervening hex(es)—such as from 1M5 to N3 (see 23.1 illustration).



EX: The ground level of 1X3 is not in the LOS of the 1st level of W4. Therefore, the broken unit in level 1 of W4 is under no obligation to rout despite the presence of the enemy unit in X3. Similarly, units in those adjacent hexes cannot fire at each other due to their lack of LOS.

23.26 STAIRWELL: Attacks up or down a stairwell hex to other vertical levels of the same building hex are limited to the next higher or lower level. A ground level and second (or higher) level of the same building hex are never ADJACENT.

23.3 The TEM of a building is dependent on the construction type of that building. Gray buildings represent stone construction and have a TEM of +3. Brown buildings represent wooden construction and have a TEM of +2. If the color of a particular building is such that players cannot agree on the construction type of that building, treat it as wooden.

23.31 The TEM is determined by the building occupied by the target and is not altered for fire from within the same building *[EXC: Factory; 23.741]*. A Bypassing unit does not qualify for a building TEM vs non-Residual-FP *[EXC: J2.23]* attacks.

23.32 INDIRECT FIRE: Indirect Fire is resolved simultaneously with the same Original Resolution DR vs each level of a building (provided it is not an Interior Building Hex), but there is an additional +1 DRM for each non-rooftop level of the building above it (even if in the Marketplace [23.73], or if being attacked by WP); if an Interior Building Hex is hit, only the rooftop and highest level of that building hex are affected *[EXC: Rubble; 24.11-.121]*.

EX: A unit on the ground level of a wooden Two Story House receives a +3 TEM vs indirect Fire; a unit on Level 1 of a stone Multi-Story Building receives a +4 TEM.

23.4 Unless using Bypass, Infantry spend two MF to enter a building hex *[EXC: via Road (A4.132); also, if the Bypass portion of the hex contains other than Open Ground such as 2I9 (A2.4)]* and one MF to change levels within a building in a stairwell hex (whether printed or inherent). A vehicle may enter a building hex only via VBM (D2.3), Factory Stairwell (23.742), or by risking rubble/cellar collapse (23.41) *[EXC: Marketplace; 23.73]*, and may never occupy an upper building level.

23.41 CELLARS: Only a fully-tracked, CT, BU AFV without Riders may enter a building obstacle *[EXC: Marketplace (23.73); Factory Stairwell (23.742)]* and does so at a total MP cost equal to half of its printed MP allotment (plus the additional one-fourth of its MP allotment if it makes an OVR attack; D7.1). Such non-VBM entry of a building hex re-

© 2000 Multi-Man Publishing, LLC

quires an immediate Bog Check DR with a +3 DRM to the Bog Check only (+4 for stone buildings). If the AFV rolls ≤ 0 on the colored dr of the Bog Check DR, the building hex has been rubbled. A -1 drm to the colored dr of the Bog Check DR applies if the building is wooden/a Single Story House (per each applicable case) only for purposes of determining rubble creation. Rubbling a Single Story House has no effect upon any occupants of the building, but if a rubbled building has an upper level, 24.11-.121 applies. If the AFV rolls an Original 6 on the colored dr of the Bog Check DR, the AFV has fallen through the floor to the cellar and is removed. Should the AFV crew survive, it is automatically placed at ground level subject to Hazardous Movement for any subsequent fire during that phase (D5.6). Cellars have no other use in the game. An AFV falling into a cellar does not in itself create rubble, nor does it have any effect on Manholes, sewers, or units therein.

23.42 A multi-level building contains another vertical Location for each level of the building—each with its own normal stacking limits. No unit may occupy more than one level at once.



23.421 UPPER LEVELS: Units in a multi-level building are considered on ground level unless they are placed on top of a Level counter. The Level counter in effect forms the floor between the levels. Level counters are not placed on the board until occupied by a unit *[EXC: Level 3; 23.24]*. The floor remains inherently present despite the absence of the Level counter. The Level counter is used only to show units on that specific upper level. Movement and attack costs are the same for the upper levels as they are for the ground level. Floor Level counters are color coded by elevation so that they can be recognized at a glance without displacing counters on top of them.

23.422 Units in non-stairwell hexes may not engage in CC with enemy units above or below them on a different level. Units that start their APh already in a stairwell hex may engage in CC only if they advance during the APh up or down stairs one level and enter into CC with opposing units in that Location. A unit may never advance both into a new hex and up or down into a new vertical building Location in the same APh, *[EXC: moving between hexes of a Split level Building; 23.72-.722]* nor move directly from an upper-level Location to a different building.

23.423 GUNS: No weapon depicted on a $^{5}/_{8}$" counter may occupy an upper level of a building *[EXC: Mortars (23.85); Fortified Building (23.93)]*. A non-vehicular weapon on a $^{5}/_{8}$" counter may be set up or pushed into a building/rubble only if it is either a small target (C2.271) or an AT/INF Gun that is not a large target. Mortar fire, and MG/Gun attacks vs Aerial targets, are not allowed from a non-rooftop building Location.

23.424 SCALING: Scaling is allowed only by specially-trained and equipped troops designated as Commandos by SSR or DYO purchase. Any Good Order Commando may descend/ascend the outside of a building/bridge by Climbing (11.4) and placing a Climb counter in the building/bridge hex with the arrow pointing to a vertex of the building hex not touched by the building depiction. Scaling units need not take a Falling DR (11.41); they automatically ascend or descend one level during each Game Turn with the option of advancing off the Climb counter to the current level of the building they occupy in their APh. Scaling a building level containing a Blaze in the Location being entered is not allowed. All Climbing rules apply to Scaling *[EXC: Falling DR; 11.41]*.

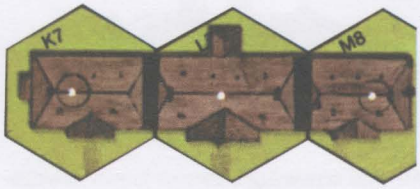
23.5 The only Fortification allowed in a building hex is a minefield or the fortification of the building itself (23.9).



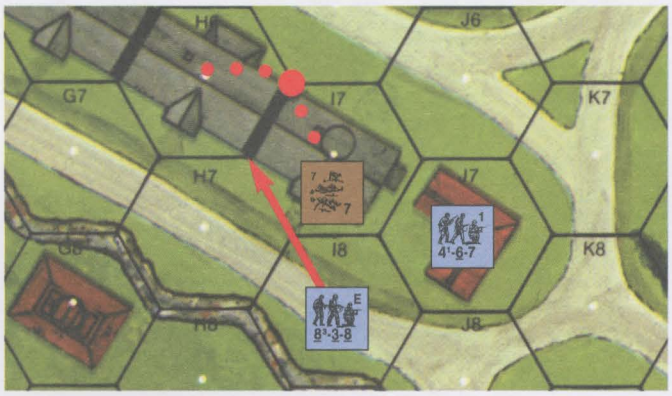
23.6 A Flame can be kindled in a wooden building on a DR ≥ 7 and can later spread to *adjacent* hexes of the same building on a DR ≥ 8. A Flame can be kindled in a stone building on a DR ≥ 8 and can later spread to *adjacent* (see 25.6) hexes of the same building on a DR ≥ 9. These DR are all subject to modification, see Section 25. A multi-level building hex that contains a Blaze on every level is marked with a burning building counter from *PARATROOPER* rather than placing a Blaze counter on each level of the building hex.

23.7 SPECIAL BUILDING TYPES: There are four rare building types with special rules pertaining only to them.

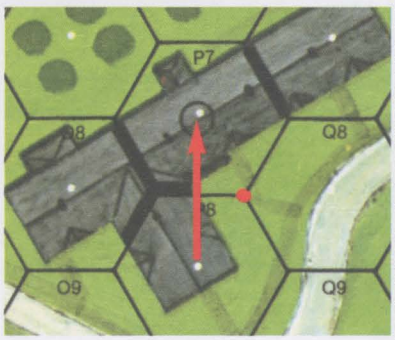




23.71 ROWHOUSE: Any multi-hex building with a thick black bar over any hexside it crosses (such as 23K7) is considered a Rowhouse structure composed of separate Rowhouses. As a multi-hex building, Rowhouses have an upper level(s) and are considered either $1^{1}/_{2}$ level obstacles to LOS if they have only an inherent stairwell (23.22) such as 20X6, or $2^{1}/_{2}$ level obstacles if they have a printed stairwell (23.23) such as 12O4. The thick black bar blocks all LOS through it at all levels *[EXC: Rowhouse rooftop units retain their normal LOS]*. Rubble has no effect on this black bar unless both hexes formed by that hexside are rubbled, in which case it ceases to exist. Infantry in a Rowhouse may *move/rout/advance/Withdraw-from-CC* directly into another Rowhouse hex of the same building only at the ground or Rooftop (23.8) level; if at the ground level they must specify which side of the building they are "bypassing". Such units moving/routing on the ground level expend three MF (one to "bypass" in the hex it is leaving where it would be attacked



EX: The broken Russian squad in 20I7 must rout, but if it routs into H6 along the H7 side of the building it would be subject to Interdiction from I8 at the I7-H7-H6 vertex. Routing up a level in I7 would save it temporarily but leave it very vulnerable to the next German move, so it elects to rout to H6 on the other side of the building because neither German unit has a LOS to the I7-I6-H6 vertex along the I6 side of the building to H6.



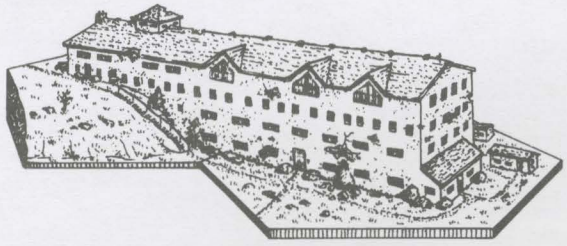
EX: A unit in 21O8 does not have a LOS to a unit in P8 because the LOS between the two hex center dots is blocked by the black bar. However, a unit in P8 does have a LOS to P7 because the black bar does not extend to the midpoint of the hexside. Even so, a unit in P8 wishing to directly enter P7 during the MPh would still be subject to FFMO/FFNAM at the P8-P7-Q8 vertex (shown by the red dot)—although not from O8, which cannot see that vertex. **NOTE:** Owners of the first edition board 12 will need to draw these bars onto their board across the O6-O7, 04-P3, and P3-Q4 hexsides within the confines of the building depictions.

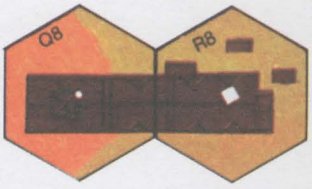
© 2000 Multi-Man Publishing, LLC

by any OBA/Residual-FP and two to enter the building), and can be Interdicted or Defensive First Fired upon with FFMO/FFNAM DRM by any unit capable of doing so that can trace a LOS to the vertex of the hexside crossed by the moving/routing unit on that side of the building. If broken, pinned, or repulsed at this vertex, the unit is returned to its last-occupied Location as if it had attempted to enter a concealed MMC's Location during its MPh (A12.15). A ground-level move/rout/advance/Withdrawal of this type is vulnerable to any mines in either hex. Units in different Rowhouses may not form a FG unless each is ADJACENT to another unit that is not in a Rowhouse but that is part of that FG. Each hex of a Rowhouse building is always considered a separate building for Rout and Mopping Up purposes but not for Building Control.

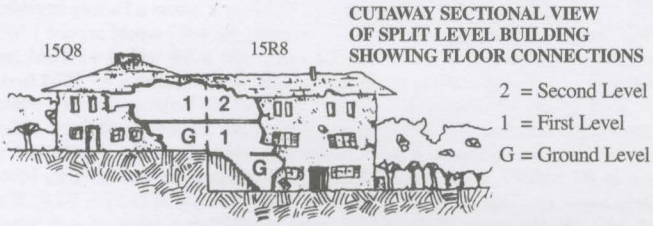


23.711 BREACH: Unpinned, Good Order Infantry with a DC in a Rowhouse may attempt to Breach the black bar by expending one MF to Place a DC during its MPh and declaring the Rowhouse hexside it is attacking. If successfully Placed, the DC attack is resolved vs the hexside (only—but with normal TEM) during the AFPh; if the DC detonates, it will Breach the wall with any NMC or better result on the IFT and, using the same Original IFT DR, will attack any units in the corresponding adjacent Rowhouse Location as Area Fire (12 FP if unconcealed, 6 FP if concealed) with full TEM *[EXC to both: if the DC malfunctions; A23.4]*. Place a Breach counter in the proper Location with the arrow pointing toward the breached hexside. Thereafter, normal building-to-building LOS and movement options exist between that level and the same level of the breached ADJACENT rowhouse. A Breach is also created whenever an AFV drives through a black bar without causing rubble as per 23.41.

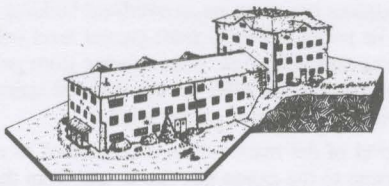


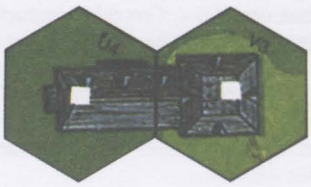


23.72 SPLIT LEVEL BUILDINGS: Multi-hex buildings located on different elevation levels such as 15Q8-R8 and containing only one staircase symbol in the lower elevation hex are actually a combination of 1st and 2nd level building hexes. While the building represents a 2½ level obstacle in both hexes (the building hex containing the stairwell is a 2½ level obstacle on ground level, while the building hex not containing the stairwell is a 1½ level obstacle on a level 1 hex), that building hex located on higher terrain actually has one less level than the portion located on lower terrain. The first level of the higher hex connects directly to the second level of the lower hex. Movement within the building to the ground level of the higher hex must be made from Level 1 of the lower hex, etc.



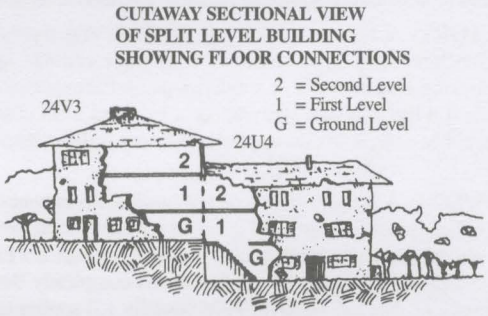
EX: A unit in 15R8 moving within the building directly to Level 1 of Q8 must move by way of the second level Location in R8 and vice versa.





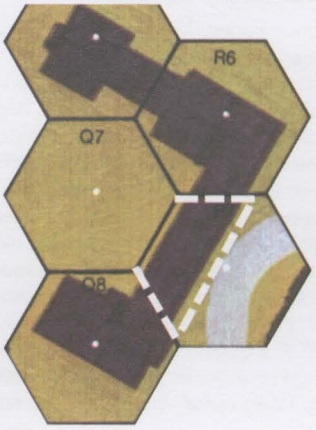
23.721 Multi-hex buildings located on different elevation levels and containing a stairwell symbol in both hexes such as 24U4-V3 have the same number of building levels in each hex, but that building hex located on higher terrain presents a higher obstacle to LOS than the building hex on lower terrain. The same is true for multi-hex buildings located on different elevation levels and having no stairwell symbol, whether a Rowhouse (41V6-V7) or regular two story house (overlay 6). Movement within the building from the higher hex to the lower hex must be made from a building level which is one lower than the building level moved into and vice versa; units on rooftops cannot move directly into a new hex. Movement between Rowhouse hexes of the same split level building can occur only at ground level; if ascending elevation, Infantry would spend 4 MF (two [2 × 1] to "bypass" and two to enter the building). In all cases (including non-Rowhouses and buildings with only one stairwell), units may move from the ground level of one hex to the ground level of another hex in a manner similar to Rowhouse Bypass movement (23.71).

23.722 Similarly, whenever a multi-hex building is defined by SSR as having higher building levels in one hex than in another, a special LOS restriction applies in that the top level of the higher hex cannot see the top level of the lower hexes (and vice versa) *[EXC: units on rooftops; 23.8]* because the roof of the lower level building hex is between them.



EX: The most direct movement from the second level of 24U4 to the second level of V3 is via the first level of V3.





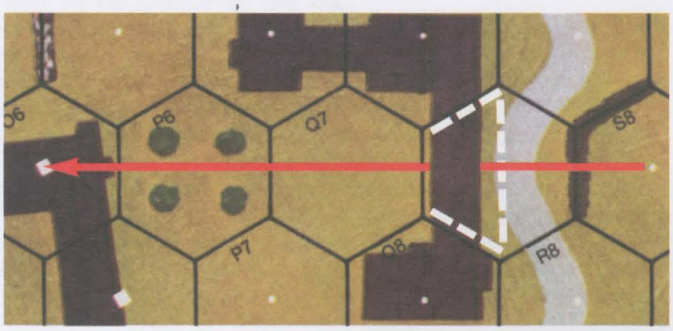
23.73 MARKETPLACE: Building hex 12R7 is unique in that it has no building obstacle at ground level, as signified by the white dashed lines on the R7 building depiction. Ground level LOS may be maintained through this hex (inclusive of hexsides) in any direction; units of all types may move through it at ground level/be fired on in it at ground level as if it were open ground.

Note: Owners of the first edition board 12 will need to draw these dashes across the R6-R7 and R7-R8 hexsides out to and across the middle of R7.

© 2000 Multi-Man Publishing, LLC

23.731 The marketplace hex contains an overhead building Level 1 Location which can be reached directly from ground level only by the inherent (exterior) staircase in the hex. Units moving from ground level to Level 1 (and vice versa) in the MPh via this inherent staircase are considered to be moving in the open at ground level.

23.732 The 1st level of the marketplace is considered to overhang the ground level structure to the extent that fire to and from the Level 1 of 12R7 can be accurately traced to the hex center dot. Ground-to-ground LOS through or into the marketplace ground level exists normally, barring other LOS obstacles. LOS from a first level Location exists into both levels of the marketplace *[EXC: 23.25]* but through neither. LOS from a level 2 or 3 Location exists into both levels of the marketplace and also over it into hexes beyond, barring Blind Hexes caused by the $1^1/_2$ level obstacle of the marketplace (see A6.4).



EX: 12S8 can see the ground level of O6 through the ground level opening of R7, but it cannot see the Level 1 or 2 of O6 due to the $1^1/_2$ level obstacle caused by Level 1 of R7.

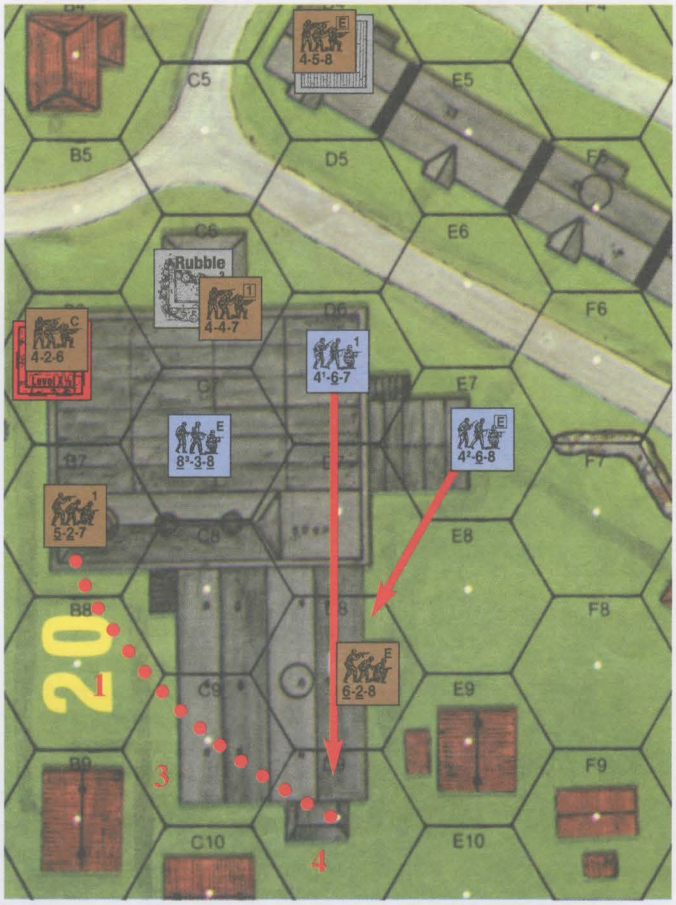
23.733 Due to the lack of a ground level building in the marketplace, many exceptions to normal building rules apply. Wire/roadblocks could be placed in this hex and routing units could be Interdicted at ground level in it.

23.74 FACTORY: A Factory exists only by SSR, and represents any warehouse/machine shop type structure with high ceilings and large work bays lacking interior walls or subdivisions. A Factory is a $2^1/_2$ level LOS obstacle if it has a printed stairwell, or a $1^1/_2$ level LOS obstacle if it does not. In either case, it has no upper level floors—all occupants are at ground level *[EXC: rooftops; 23.8]*.

23.741 LOS/TEM: A Factory hex does not block LOS between units in the same building, provided that LOS is traced entirely within the building depiction—although each such hex a LOS is traced through is a Hindrance to LOS. The TEM of a Factory hex to fire traced completely through the same building is +1. Normal building TEM (usually +3) applies to Indirect Fire vs a non-Rooftop Factory Location (unless Roofless; O5.45). The extra + 1 TEM for a Fortified Factory Location does not apply vs *Indirect* Fire. For Sniper Target Selection (A14.21) a unit in a stone Factory is considered to have a +3 TEM (+2 TEM if wooden). Factory Hindrance is a half-level LOS Hindrance. For Residual FP in a Factory Location, Building TEM applies if the moving unit is entering by crossing a non-building hexside or Bypassing in the hex; otherwise, Factory TEM applies.

23.742 MF/MP: Movement directly from a Factory hex to another Factory hex of the same building through a Factory hexside costs only one MF. A fully-tracked AFV already within a Factory hex may move inside the same building at one-fourth (FRU) of its MP allotment per hex but must take a Bog Check with a +1 Factory DRM in each such hex entered, and to exit the building must pay normal building entrance costs (23.41) (expended *in* the building) and check for Bog/rubble prior to entering the non-factory hex. *[EXC: Any vehicle may enter/exit a Factory Location containing a printed stairwell symbol or across a road hexside at Open Ground costs provided the hex is controlled by friendly forces (the stairwell symbol in this case representing a vehicular-sized entrance)]*. A vehicle that changes its VCA in *any* Factory Location is subject to Bog. A vehicle that becomes Immobile in a Vehicular-Sized Entrance (O5.2 for *RED BARRICADES*) does not negate Entrance benefits. Any unit may use the Open Ground entrance benefits of a Vehicular-Sized-Entrance—but only when entering it from *outside* that Factory and not if that Entrance is Roofless (see O5.42 for *RED BARRICADES*). Such use of OG entrance benefits does not negate that hex's Factory TEM. Otherwise, a vehicle may not move directly in a non-Bypass fashion from a Factory hex to another hex of the same Factory. Factories do not have cellars (23.41).

23.743 FACTORY RUBBLE: A rubbled Factory hex, although no longer a building hex, is still a part of the Factory *[EXC: it does not hinder LOS over (B.4) it]*. Normal rubble rules (24.) apply. Movement/fire from such a hex *into* the Factory is treated as coming from a Factory Location. A ground-level Location of a Factory adjacent to a rubble hex of that Factory has a +1 TEM for attacks from outside the Factory provided the LOS is *over* (B.4) the rubble and crosses the building depiction while entering the target Factory Location.



EX: 20E7 is a Factory. The 4-6-8 in E7 attacks the 6-2-8 in D8 with a TEM of +3 because the LOS is not traced entirely through the Factory depiction. The 5-2-7 in B7 expends one MF to enter B8, two MF to enter C9 (entrance of a building), and only one MF to enter D9 (movement across a Factory hexside). Should the 4-6-7 Defensive First Fire on the 5-2-7 in D9 it will do so with a +2 DRM (+1 TEM [Factory] +2 [LOS Hindrance] -1 [FFNAM] = +2).

The 4-4-7 attacks the 4-6-7 in D6 with a +1 TEM (as if across a Factory hexside) even though the LOF leaves the building depiction; the 4-4-7 would expend 1 MF to enter either D6, C7, or B6. The 4-5-8 attacks the 8-3-8 with a +1 TEM (as would the 4-4-7), but a unit at ground level in B6 would receive a +3 TEM from an attack by the 4-5-8 since the LOF does not cross the building depiction while entering the Location. The 4-2-6 on the roof attacks the 4-6-7 with a +1 TEM (and no Factory Hindrance). If hex C7 were also rubble, the 4-5-8 would attack a unit in B7 with +1 TEM. Normal Weather effects apply to hex C6 (e.g., Mist, Deep Snow, etc.), but not to the un-rubbled Factory Locations (A24.6; E3.8). If a +1 Mist LV Hindrance DRM (E3.32) were in effect at a range of ≤ 6 hexes (E3.51), then all the preceding attacks from or "over" C6 would be affected by the Mist DRM, as would return fire (i.e., E3.8 would be NA); attacks between Factory Locations D6 and D9 would be affected by the +2 Factory LOS Hindrance between them but would not be affected by Mist (i.e., E3.8 would apply).

© 2000 Multi-Man Publishing, LLC



23.8 ROOFTOPS: Rooftops come into play only by SSR and, for purposes of unit occupation, do not exist on Single Story Houses. Rooftops are treated the same as another building floor level at the next higher half-level elevation except as amended below. All playable rooftop hexes are assumed to have an inherent stairwell to the level below. The MF costs for entrance of a directly connected rooftop Location is two MF for entrance of another rooftop or one MF for ascending/descending a stairwell; i.e., the same cost as for normal building Location-to-building Location movement. A unit may not move directly from one rooftop Location to a rooftop Location of a non-connected building or one at a different elevation. In the case of Split Level buildings such as 24U4 (see 23.722 illustration), a unit could move directly from the U4 rooftop to V3h2 at a cost of two MF, but it could not move directly to the V3 rooftop.

23.81 TEM: A unit on a rooftop receives no building TEM, but does receive the +1 DRM for Height Advantage if applicable. Furthermore, it is considered to be in Open Ground for FFMO, Rout, and Interdiction purposes from an equal or higher LOS. A rooftop may not be fortified (23.9).

23.82 CONCEALMENT: A Rooftop Location is Concealment Terrain only for setup purposes. A unit can remain hidden or concealed on a rooftop only if there are no Good Order enemy ground units within 16 hexes of it that are at the same or higher level with a LOS to it; these same restrictions apply to gaining "?" on a rooftop *[EXC: the enemy units need only be unbroken (as opposed to Good Order) to prohibit such gain]*. A unit on a rooftop is considered in the building for Searching/ Mopping Up purposes.

23.83 RALLY: There is no terrain bonus (A10.61) for a Rally attempt on a Rooftop. A Rooftop Location is not considered a building Location for rout and Victory Condition purposes.

23.84 OBSTRUCTION: The presence of a Rooftop level does not make the building a higher obstacle to LOS.

23.85 GUNS: No $^5/_8$" counter weapon may occupy a rooftop, except for a mortar of ≤ 82mm which must be dm to be portaged to/from the rooftop (or between different Locations of it). Such mortars may fire from those rooftops. A Gun may never be Emplaced (C11.2) on a Rooftop.

23.86 RUBBLE: A rooftop never becomes rubble. It exists until any level beneath it in the same hex becomes rubble, at which time the rooftop simply ceases to exist. Check for rubble as if the Location were a non-rooftop building Location. For HE attacks vs a playable rooftop Location, check for rubble instead in the Location beneath the rooftop.

23.87 FACTORY ROOFTOP ACCESS POINTS: Aside from Scaling (23.424), a Factory Rooftop can be reached from ground level only via a non-rubbled, non-roofless (O5.4) Factory Rooftop Access Point; i.e., a printed stairwell or a Location of the Factory that contains a *road hexside*. A Factory that contains neither of these Rooftop Access Points must have at least one such Point designated by SSR if its Rooftop is to be usable. The ground and Rooftop levels of a Factory Rooftop Access Point hex are ADJACENT; intermediate vertical levels do not exist *[EXC: for MF-expenditure, LOF and Residual-FP purposes; see 23.88]*. Infantry expend two MF (for a $1^1/_2$-level Factory) or three MF (for a $2^1/_2$-level Factory) to ascend to the Rooftop or vice-versa.

23.88 ATTACK EFFECTS: Infantry changing levels via a Factory Rooftop Access Point may be attacked at ground level (if descending) and/or Rooftop level (if ascending) in the normal manner. However, they may also be attacked at the first-level (and/or second-level if a $2^1/_2$-level Factory) "quasi-location" of that hex by a unit that has a LOS to that quasi-Location. Such a quasi-Location is not considered Open Ground, but such an attack vs it receives no TEM *[EXC: non-Fortified building TEM applies if firing from outside the Factory]* and neither Factory nor debris Hindrance DRM. The target is assumed to expend one MF per level changed; if pinned or broken while at that quasi-Location it reverts to the level it was attempting to *leave* (and may be attacked by any Residual FP at that level as it re-enters it). The Residual FP left by an attack vs such a quasi-Location remains at that level (place the Residual FP counter on the appropriate Level counter) to attack each unit subsequently entering that level in that hex during the same MPh. A unit at rooftop level in a Factory Rooftop Access Point being attacked by a same-hex ground-level unit receives Height Advantage +1 TEM (23.81), while the ground-level unit receives Factory TEM (and no additional TEM for a Fortified Building Location) if attacked by that Rooftop unit. Both units may use PBF (since they are ADJACENT; A7.21).

23.9 FORTIFIED BUILDINGS: Given sufficient time, materials, and inclination, buildings can be converted into miniature fortresses. The actual effects might vary widely (depending on the materials available), but are generalized as follows.

23.91 Optional counters may be used to indicate a Fortified Building. Only buildings can be fortified, and only by SSR or DYO purchase.

23.911 The number of Fortified Building Locations is specified by SSR or DYO purchase. If the specific building Locations are not specified, they must be selected and secretly recorded prior to the start of play. Buildings cannot be fortified during play. A Fortified Building is not revealed until an enemy unit attempts to enter it, or it is successfully Searched (A12.152) or fired on with a result which would be different due to the increased TEM of a Fortified Building.

23.912 All non-rooftop levels in a given hex of a multi-level building may be fortified by DYO purchase (H1.6) or SSR. Improvements must be made, in any one hex, from the ground up. Thus, a fortified Level 1 is possible only if the ground level directly below is also fortified. Improvements, or the lack thereof, in adjacent hexes of the same building do not affect this.

23.92 Except as modified below, Fortified Buildings are treated the same as other buildings.

23.921 TEM: The TEM of a Fortified Building Location (including vs DC Breach attempt) is one greater than usual, e.g., +4 for a stone building and +3 for a wooden building. Should a CH occur, the modifier becomes -4 or -3 respectively for the resolution of that CH.

23.922 ENTRY: Infantry may not enter a Fortified Building Location during any phase if an unpinned, Good Order, enemy squad (or its equivalent) is inside *[EXC: Breach; 23.9221]*. A berserk unit must remain in the adjacent hex attacking it in its AFPh/DFPh until the occupants have been pinned, broken, or Reduced sufficiently to allow it to enter (or until another enemy unit becomes adjacent to it, in which case the berserk unit must charge this new unit). An Infantry unit which attempts to move or advance into a Fortified Building Location occupied by such a squad loses that MPh or APh capability for that turn and must remain in its present hex during that phase. The MF *expended* (not lost) in an unsuccessful entry attempt are considered expended in its present hex for purposes of Residual FP (A12.15), Defensive First Fire, Subsequent First Fire, or FPF; however, once all such fire is completed, the unit's MPh is over and it is no longer a target for such attacks. Loss of concealment rules (A12.15) apply even though the Fortified Location cannot be entered.



23.9221 BREACH: A Breach may be created in a Fortified Building hexside as per 23.711, or in a hexside crossed by the LOF of a HE attack Final IFT DR resulting in a KIA. Once breached, a Fortified Building can be entered through that hexside (and level) in the same manner as any building hex. However, all other Fortified Building benefits still apply. A DC may be Placed on a Fortified Building Location without attempting to Breach it at the normal building entry COT, even if the Placing unit could not enter the Location due to it being Fortified.

23.93 GUNS: A Fortified Building differs from a building in that any ART/AT/INF Guns ≤ 76mm may set up in the fortified upper levels of a multi-level stone Fortified Building. Such a weapon cannot be moved from that Location during play. See C2.6 for the minimum distance at which such a Gun can fire at a different-level target. Any type/target size of Gun may set up in the ground level of a Fortified Building but may not fire at Aerial targets or use Indirect Fire. No $^5/_8$" weapon counter may be moved into a Fortified Building during play.

23.94 All attempts to start a Flame in a Fortified Building Location or to have an existing Blaze spread to such a hex are penalized by a -1 DRM *[EXC: Flames caused by MOL attacks are penalized differently; A22.6111]*.

© 2000 Multi-Man Publishing, LLC

24. RUBBLE



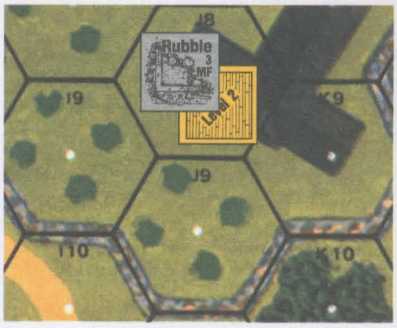


24.1 Rubble represents shattered remnants of a building and is represented by a $^{5}/_{8}$" rubble counter which is brown if the building was wooden, or gray if it was stone. A rubbled Location is no longer a building Location and a building totally reduced to rubble is no longer considered a building *[EXC: for Rubble Clearance purposes; 24.71]*.

24.11 CREATION: Any HE (only) attack ≥ 70mm (or HEAT attack) against a building hex with an Original IFT DR which causes a KIA on the appropriate IFT column if reduced for Area Target Type, Harassing Fire, or Barrage result causes structural damage which may possibly cause the affected building level in that hex to collapse and be replaced by a rubble counter (see also Fire Collapse; 25.66). Before normally resolving the HE attack against any affected occupants, make a subsequent dr, adding a +1 drm if the building is of stone construction. If the result is ≤ the KIA# of the Original DR, that building level (and all levels above it in that hex) has been rubbled. This is indicated by placement of a rubble counter on top of the proper Level counter to show that the lower levels still exist. If the building Location is not rubbled, use the Original IFT DR and any applicable DRM to resolve the attack on the target. The level affected in an Area-Target-Type/OBA attack vs a multi-level building is determined via Random Selection among those levels hit. All unarmored occupants (including SW) of a rubbled building level are eliminated (see 24.121 for effects on an AFV). Even if the KIA occurs in a higher building level, there is still a possibility that the entire building will collapse. Roll one die. On a dr ≥ 6 the entire building hex is rubbled. There is a +1 drm for every non-rooftop building level above the one in which the rubble occurred.

EX: A Brummbaer attacks a 4-4-7 in a stone building and scores a hit on the Infantry Target Type with its 150mm Gun. The Original IFT DR is a 3 which results in a 3KIA. The building is stone (+1 drm) so the German must roll a 1 or 2 on a subsequent dr to rubble that Location; if he makes an Original dr ≥ 3, no rubble results and he must resolve the Original IFT DR as a 3KIA result vs the 4-4-7 instead. Had the attack been a 150mm FFE, the result would have been the same except that a +3 TEM would have applied after the building failed to rubble, resulting in a K/4 vs the 4-4-7.

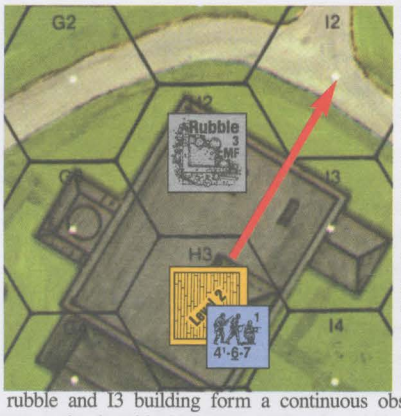
24.12 FALLING RUBBLE: Whenever an upper level building hex is rubbled by any means, there is a chance that the rubble will fall into an adjacent hex. Make a DR; a colored dr ≥ 7 indicates that the rubble will fall; the white die indicates the direction in which it will fall (B.8). The colored dr is modified by +1 for each non-rooftop level of the building hex above ground level which was rubbled by that shot.



EX: Hex 6J8 is a third level building which has just been rubbled from the second level up. The colored dr on the resulting Falling Rubble DR is modified by +2 for the two destroyed building levels. If the firer rolls a colored 5 and a white 3, another rubble counter will be placed on the ground level of K9, thus rubbling all three levels of K9 (24.121) and possibly causing its rubble to spread also. Since K9 has been rubbled from the ground level up, the Falling Rubble colored drm for its Falling Rubble DR will be +3.

24.121 Falling rubble transforms any non-Water Obstacle terrain it falls on into a rubble counter at ground level and eliminates any non-armored (including non-AFV wrecks) or OT AFV unit/Fortification/TB in that hex. Each surviving armored unit must immediately check for Bog (even if its Bog Check caused that rubble; 23.41). A CE, CT AFV is also Stunned (D5.34). It is possible that falling rubble can fall into another building hex (even a higher one), rubbling it, and thereby start a chain reaction of such collapses. The movement costs and TEM of rubble replace whatever terrain was previously present *[EXC: bridges remain intact but with a rubble counter on top]*. See 24.6 for Falling Rubble vs Flame/Blaze.

24.2 Ground level rubble is a Half-Level LOS obstacle through the entire hex (including hexsides but without negating any hedge/wall). Rubble at a higher building level is a LOS obstacle equivalent to a half level plus that of the highest non-rubbled level beneath it, but only within the building depiction outline in that hex at upper levels. The ground level of any hex containing upper level rubble is assumed to be covered with rubble throughout the hex, although it does not harm units at ground level when it occurs and units may cross the ground level hex through a connecting (non-rubble) building hexside at non-rubble movement rates. Rubble falling into a hex already containing uncleared rubble has no additional effect other than the danger it poses to the occupants of that hex (24.121). A combination gully-rubble hex is a LOS obstacle at both its Crest (19.) and Depression levels *[EXC: rubbled bridge; 6.331]*. A unit IN such a hex must expend *four* MF to enter Crest status in that hex (20.91). A Crest unit in such a hex always receives rubble TEM—not entrenchment benefits. All other Crest rules apply unchanged.



EX: The 4-6-7 on Level 2 of 20H3 can see directly along the H2-I3 hexside to I2 due to the ground level rubble in H2 despite the H2-I3 hexside still being a two level obstacle, because a LOS must be obstructed on *both* sides of the thread to be blocked unless it is Inherent Terrain—which the I3 building is not (A6.1). However, a unit at ground level in H3 could not be seen from I2 because the rubble is a Half-Level Obstacle and, even though the LOS is traced exactly along a hexside, the H2 rubble and I3 building form a continuous obstacle (albeit of varying height) across that hexside. Now assume that the rubble in H2 was at level one. A unit in I2 would have to pay three MF to enter H2, but a unit at ground level in G3, H3, or I3 would only have to pay two MF to enter H2.

24.3 The TEM of rubble is equal to the building type from which it was made *[EXC: the TEM of rubble from a Fortified Building is not increased due to the Fortification]*. Rubble can never have a building level above it (even in the Marketplace; 23.73), but can exist above an intact building level—in which case it (or rather the level it rests on) still adds a +1 TEM to any Indirect Fire attack on levels below it (23.32). Even though rubble is a Half-Level Obstacle, it does not allow units behind a rubble hex to claim TEM as they would behind a wall.

24.4 Infantry movement into rubble costs three MF. Stairwell movement to or from a rubble level also costs three MF, not the normal one MF cost for changing levels via a stairwell. Entrance/exit of a sewer through a rubbled Manhole Location is not allowed unless the Manhole is in a road hex that can be crossed (not just entered) along the road via a full TB. Vehicles may not enter a rubble Location unless they are fully-tracked, and must expend half their MP allotment plus check for Bog (D8.21) with a +3 DRM in the rubble hex. Cellar consequences (23.41) do not occur in a previously completely-rubbled hex. Bypass/VBM is not allowed in a hex containing rubble (24.2).

24.5 No Fortifications are allowed in a rubble Location, although rubble effects from higher level rubble can co-exist in a Fortified ground level hex (24.2).

24.6 FIRE: Rubble can be Kindled in the same manner as a building. For purposes of Spreading Fire, rubble is considered "part of the same

© 2000 Multi-Man Publishing, LLC

building" as any ADJACENT rubble. A building level which contains a Blaze when it is rubbled and falls into other Burnable Terrain immediately places a Blaze in that terrain also. Similarly, any rubble which falls into a Blaze is automatically set ablaze. A Flame is extinguished by falling rubble, regardless of whether the rubble falls onto the Flame's Location or the Flame is part of the Falling rubble. If an attack creates rubble, it cannot also create a Flame (rubble creation always takes precedence over Flame creation; 25.13).

24.7 CLEARANCE: Rubble, Wire, mines, Set DC, roadblocks, and Flame may all be removed as Tasks by units (at least one MMC/dozer) in the same Location which become TI through the Clearance process using similar rules and DRM. From the time a unit declares a Clearance attempt, it is considered engaged in that attempt until it makes a Clearance DR, is pinned, or is no longer Good Order. Only unpinned, Good Order units may engage in Clearance attempts. A Final DR ≤ 2 is always required for success. All attempts to clear the same item in the same phase must be combined into one DR. The following DRM apply:

+x	Labor Status (24.8)
+y	the leadership factor of one participating leader directing another unit
-1	for Clearance attempt by one squad
-1	for each additional HS/crew (-2 for each squad) beyond the one required MMC/Dozer
+z	† EC DRM (25.5)
-1	*for each participating Hero
-2	*for each Sapper (28.8) squad (-1 for Sapper HS)
-5	@for each bulldozer

† Applicable only to Flame

* Applicable only to mine, Set DC, or Wire Clearance attempts

@ Applicable only to Flame, roadblock, or rubble Clearance attempts



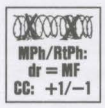
24.71 RUBBLE: Fallen rubble may be partially negated from any non-building hex (i.e., one not containing a building depiction—even if completely rubbled) by any unpinned, Good Order Infantry MMC/bulldozer in the rubble hex by rolling ≤ 2 on a Rubble Clearance DR at the end of their CCPh. The units involved must have declared their Clearance task as Hazardous Movement by expending ALL of their MF to enter (or remain in) the hex during their MPh and being marked with a TI counter. A bulldozer may enter a rubble hex without checking for Bog and make a Clearance attempt provided it expends its entire printed MP allotment (other than for Starting/changing-VCA) to enter/remain-in the hex, is not using Reverse/ESB, and becomes TI. A cleared rubble hex is marked with a TB counter across any two hexsides of the rubble hex of the clearing player's choice. A TB counter reduces movement costs into that hex through the TB hexside to its pre-rubble status cost. The TB has no effect on LOS or TEM of that hex (see 13.4212). If every hexside of the rubble hex is crossed by a TB, the rubble and the TB are removed.

EX: One squad, a bulldozer, and a 9-1 leader engaged solely in rubble clearance throughout their entire Player Turn can create a TB through the rubble hex with an Original DR ≤ 9 because they qualify for a -7 DRM (-5 [bulldozer] -1 [squad] -1 [leadership] = -7).



24.72 FIRE: Unpinned, Good Order Infantry may attempt to extinguish a Flame in the same Location during its own MPh/DFPh as Hazardous Movement, provided the unit declares such an attempt, has not already moved or fired (or directed fire) during that Player Turn, and is not engaging in any other activity during that phase (as evidenced by placement of a TI counter). If more than one Flame counter exists in a Location, each must be cleared separately with its own separate DR, although all extinguishing units may attempt to put out each Flame. A Blaze cannot be extinguished by Clearance attempts. An extinguished Flame leaves the terrain in its pre-Fire condition.

24.721 HAMPER: A Final Fire Clearance DR of 3-6 prevents a Flame from becoming a Blaze during that Player Turn. A Hampered Flame is signified by placement beneath a PIN counter.



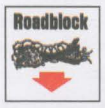
24.73 WIRE: Unpinned, Good Order Infantry beneath a Wire counter which has not moved or fired (or directed fire) during that Player Turn (as evidenced by placement of a TI counter and the declaration of their Wire Removal attempt during their MPh/DFPh) may remove that Wire counter with a successful Clearance DR at the end of the CCPh. See also 26.51-.53.



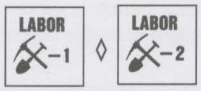
24.74 MINEFIELD: Unpinned, Good Order Infantry in a minefield Location (but not on top of a Wire counter) which has not fired (or directed fire) during that Player Turn and becomes TI during its MPh in an attempt to clear mines may clear a lane through a minefield with a successful Clearance DR at the end of *its* Player Turn's CCPh. However, any Original Minefield Clearance DR of 12 (11 or 12 if Inexperienced) results in Casualty Reduction vs the clearing unit(s). If successful, the minefield hex is marked with a TB counter across any two hexsides of the ATTACKER's choice (28.61). If every hexside of the minefield hex is crossed by a TB, the mines and TB are removed. Good Order Infantry may enter a Known minefield hex free of minefield attack by placing a partial TB, provided they expend their entire MF allotment to do so, become TI, and attempt to clear the minefield at the end of their CCPh. Unless the minefield is cleared, these units may exit the minefield free of minefield attack only by the hexside through which they entered. No other units may use the partial TB. The partial TB counter is removed if they are eliminated or exit the hex. See also 28.62-.8.



24.75 SET DC: Unpinned, Good Order Infantry which has not moved or fired (or directed fire) during that Player Turn (as evidenced by placement of a TI counter and the declaration of their removal attempt during their MPh/DFPh) in a Location containing a Set DC may remove that Set DC with a successful Clearance DR at the end of the CCPh.



24.76 ROADBLOCK: Unpinned, Good Order Infantry MMC/Dozer which has not moved or fired (or directed fire) during that Player Turn (as evidenced by placement of a TI counter and the declaration of their removal attempt during their MPh/DFPh) in a Location containing a roadblock hexside may remove that roadblock as Hazardous Movement with a successful Clearance DR at the end of the CCPh (see also 29.5).



24.8 LABOR STATUS: Any unit which fails a Clearance Attempt (or Entrenchment or Manhandling) DR is placed beneath a Labor (-1 DRM) counter. If it attempts that same DR again it may add the -1 Labor Status DRM to its DR even if joined by new units. If it fails another DR of the same type, the Labor counter is flipped to its -2 DRM side which will then be applicable to future attempts. Once earned, a Labor counter remains in place until the Task is achieved or all MMC beneath it are eliminated or removed from their current Location. A Labor Status DRM is applicable only to the specific Task attempt for which the Labor counter was placed.

25. FIRE



25.1 There are two types of Fire. A *Flame* is a beginning Fire which has no effect of its own other than the threat of growing into a large, fully developed Fire called a *Blaze* which is harmful to terrain, units, and LOS. Fires can be set deliberately, or by accident as a result of combat in Burnable Terrain. See the Index and the Kindle column of the Chapter B/F/G dividers. No other terrain type can ever be set afire.

25.11 KINDLING: Any unpinned, Good Order Infantry unit stacked with a leader (or a SMC alone) may deliberately attempt to start a Flame in the Burnable Terrain it occupies during its own PFPh, provided the SMC passes a NTC for that purpose. Making/directing a Kindling attempt, regardless of the outcome, is treated as Prep Fire which uses all of that unit's fire capability and the Kindling unit is so identified by placement of a Prep Fire counter. A Flame is started if the unit is able to make

© 2000 Multi-Man Publishing, LLC

a DR ≥ the Kindling Number of the terrain (listed on the Kindle # column of the Terrain Chart) after modification for Environmental Conditions. Leadership modifies a MMC Kindling DR with a reversed modifier (e.g., an 8-1 leader directing a squad making a Kindling attempt may add one to the squad's DR). There is a -2 DRM for a Kindling attempt by a SMC, and a -1 DRM for a HS/crew, but a leader may not both make a Kindling attempt and try to direct one. A leader may direct more than one Kindling attempt, but only if all attempts in that Location are predesignated; a leader may not wait to see if other Kindling attempts in that Location are successful before committing another unit to the same task (see MOL; A22.613).

25.12 FT: A FT attacking an unarmored target may cause a Flame in any Burnable Terrain target Location if it rolls an Original K or KIA on the IFT. After normally resolving the attack on all occupants of that Location, make a subsequent DR and add to it the current applicable (25.5) EC DRM. If this results in the Final DR being ≥ the terrain's Kindling #, a Flame counter is placed in that Location.

25.13 HE: Any form of HE or HEAT attack *[EXC: a Collateral Attack; an attack using the Vehicle Target Type; an attack that causes rubble (24.6)]* may possibly cause a Flame in a Burnable Terrain Target Location if it rolls an Original KIA on the IFT. After normally resolving the attack on all occupants of that Location, make a subsequent DR and add to it the current EC DRM unless the Burnable Terrain is a building (25.5). If this results in the Final DR being ≥ the terrain's Kindling #, a Flame counter is placed in that Location. An ordnance attack vs a vehicle is not resolved on the IFT and therefore cannot cause a Terrain Fire except as a consequence of creating a Wreck Blaze which spreads. See 24.11 for how multiple levels are affected.

25.14 WRECK BLAZE: A Wreck Blaze occurs anytime a vehicle is eliminated by a FT or MOL attack < the required Kill Number, by a To Kill DR ≤ half of the Final TK#, by an IFT DR ≤ half of the ★ Vehicle IFT #, by a CC attack DR ≤ half of the highest DR needed for a kill, or by a 1 dr following a 2 DR for an Unlikely Kill (A7.309 & A11.501). A Wreck Blaze is represented by placing a Blaze counter on top of the Wreck. It may spread to become a Blaze in Burnable Terrain in the same Location as per the normal Spreading Fire rules. Should a Location containing a Burning Wreck become a Blaze terrain Fire, the Burning Wreck is removed. A Burning Wreck is not a burning terrain Location; the Fire must first spread from the Wreck to the terrain it occupies before it can spread to another Location.

25.141 MOVEMENT: Unlike a terrain Blaze, a Wreck Blaze does not prohibit movement into the Location, but does require the expenditure of an extra MF/MP to enter the Location due to the resulting smoke *[EXC: Heavy Winds 25.63]*. This extra MP expenditure is in addition to the normal extra MP cost for entering a Location containing a Wreck (D2.14)

25.15 FLAME: A Flame is represented by a flipped Blaze counter with the Clearance and Hamper Numbers side face-up. All Fires start as Flames, except for Wreck Blazes and those spread by falling burning rubble. At the end of each succeeding AFPh *after* the Player Turn in which it first appears in the Location, a Flame may possibly turn into a Blaze (25.6) unless earlier extinguished or *Hampered* by extinguishing attempts (24.72-.721). Mark all newly placed Flame counters with a PIN counter during their initial turn on the board to signify that they are not eligible to spread during that Player Turn's AFPh. Units may move into and remain in Locations containing Flames. More than one Flame counter can exist in the same Location, but all are removed when a Blaze occurs.

25.151 BLAZE CREATION/FLAME EXTINGUISHING: A non-Hampered Flame may become a Blaze in the AFPh of every Player Turn (other than the one in which it first appears) unless it was already extinguished or Hampered (24.721) during that Player Turn. A Flame becomes a Blaze by making a Final DR ≥ the Spread Number of the terrain in its Location. If this Final DR is ≤ 2, the Flame is extinguished. This DR is modified by the EC DRM unless the Flame is in a building. There is also a -1 DRM if the Flame is in a Fortified Building (23.94).

25.2 SMOKE: Any Burning Wreck or terrain Blaze is automatically shrouded by smoke up to four levels *[EXC: none in Heavy Winds (25.63); two levels in a Mild Breeze (A24.4)]* above the level of the Fire in that hex, so no actual smoke counters need be placed on those Fires. However, Wreck Blazes cause a +2 Hindrance DRM rather than the +3 Hindrance DRM of regular smoke. The SMOKE Hindrance DRM replaces the normal Wreck Hindrance DRM (D9.4) except in the case of an already established Fire Lane (A9.22), or in Heavy Winds (25.63), where only the Wreck Hindrance DRM would apply. Both Wreck and terrain Blazes can create drifting Dispersed Smoke (A24.61) in a Mild Breeze. Flames do not generate smoke. Fire has no other effect on LOS. See also A24.2 and A24.4-.8.

25.3 Fire does not modify a hex's TEM except as outlined above for its attendant smoke effect.

25.4 ENTRANCE/EXIT: Infantry in a terrain Blaze must leave by the end of the next RtPh or be eliminated. Unbroken units unable to leave before that RtPh have the option of breaking voluntarily so as to rout out of the Blaze Location. A non-pinned unit that cannot break voluntarily (A10.41) may move during its RtPh into an Accessible Location just as if it were Withdrawing from Melee (A11.2-.21) even if berserk. *[EXC: units in Melee/pinned may not leave during the RtPh and are eliminated]*. Such units are vulnerable to Interdiction (as well as minefield/OBA attack) and ATTACKER units must still move first. Vehicular/Cavalry units in a terrain Blaze must leave in their next friendly MPh or be eliminated. Any ground unit that enters a terrain Blaze is eliminated. The occupants of a pillbox (although in a separate Location) are considered fully affected by any Blaze in the ground level of its hex.

25.5 ENVIRONMENTAL CONDITIONS (EC): Before the start of any scenario taking place in temperate climates in which Environmental Conditions have not been specified, make a dr on the EC Chart to determine the EC DRM. The EC Chart dr is modified by a drm based on the month of the scenario. See F11.4 for Arid Lands and G16.3 for Tropical scenarios.

EC CHART

Final dr	EC	EC DRM/drm	Month	drm
≤ 0	Snow	-3	Jan-Feb	-3
1	Mud	-3	Dec, Mar	-2
2	Wet	-2	Nov, Apr	-1
3	Moist	-1	June, Sept	+1
4	Moderate	0	July, Aug	+2
5	Dry	+1		
≥ 6	Very Dry	+2		

The EC DRM thus derived always applies to the Kindling and Spreading Fire DR except when Kindling/spreading-to a building. The EC DRM also applies (as a drm) to the stream/river depth dr, when such is not listed in a SSR (21.122).

25.6 SPREADING FIRE: Every Player Turn after the first Player Turn in which it appears, a Blaze may spread to any adjacent Burnable Terrain Location (including from the ground floor of a Factory hex to its Rooftop Location, or to Burnable Terrain in the same Location in the case of a Burning Wreck) at the end of each AFPh. A Burning Wreck in Bypass may spread to Burnable Terrain in either/both of the two hexes it straddles. Make a DR for each Burnable Terrain Location containing a Burning Wreck or adjacent to a Terrain Blaze counter and refer to the Spreading Fire Table. If a Burnable Terrain Location is adjacent to more than one Blaze Location/contains a burning vehicle, it is subject to only the one Spreading Fire DR that affords it the greatest chance of spreading. Building Blazes spread horizontally and vertically, but not diagonally (e.g., a Blaze on the ground level of 1E4 can spread to the 1st level of E4 and to the ground level of F3—but not to Level 1 of F3, whereas a

© 2000 Multi-Man Publishing, LLC

ground-level woods Blaze in 2M9 *can* spread to the first level woods of L8). Woods and orchard fires at ground level are considered to spread at ground level; i.e., a Blaze in 1H2 would spread to ground level of G3—not Level 1 of G3.

SPREADING FIRE TABLE

Burnable Terrain Feature	Final DR Needed to Spread	DRM
Stone Building or orchard	≥ 9	-2 not directly attached
Wooden Building or woods-road	≥ 8	-1 Fortified Building
Woods	≥ 7	-1 to lower elevation
Grain or Brush	≥ 6	+1 to higher elevation
		+x EC DRM
		+y Wind Direction DRM

25.61 A Spreading Fire DR is modified by a +1 DRM if the Blaze is spreading to a Location of higher elevation or a -1 DRM if spreading to a Location of lower elevation.

25.62 The Spreading Fire DR is modified by EC/Wind Direction DRM, and a -2 DRM if the terrain on fire is not directly attached to the adjacent terrain (or the now-burning vehicle was Bypassing the terrain obstacle as opposed to occupying it). Rowhouses of the same building are considered directly attached to each other as are Inherent Terrain (including rubble, but not AFV/wreck) hexes. If the Spreading Fire DR is successful, a Flame counter is placed in the new Location.



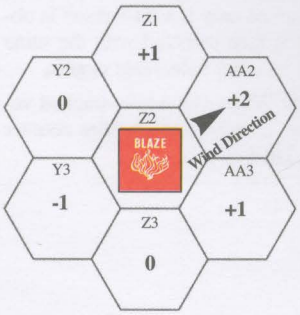
EX: EC are moderate with no wind. For the Blaze to spread to the adjacent wooden building in P4, the Spreading Fire Original DR must be a ≥ 10 (due to the -2 DRM for terrain which is not directly attached to the terrain on fire). To spread to the stone building in O5, the Original DR must be ≥ 11. To spread to the directly connected woods in Q5, the Original DR must be ≥ 7. To spread to the woods in Q6 which are not directly connected, the Original DR must be ≥ 9.

25.63 WIND FORCE: After the setup of any scenario in which Wind Force has not been specified, make a dr to determine it as per the following table:

Wind Force Table

dr	Wind Force	Result
1-3	No Wind	No Wind Direction DRM
4,5	Mild Breeze	Wind Direction DRM & Dispersed Smoke
6	Heavy Winds	Automatic Spread Downwind; None Upwind

If the Wind Force is "Heavy Winds", Fire from a terrain Blaze spreads automatically to Burnable Terrain in the three adjacent downwind hexes as a Flame, and cannot spread at all to the other three adjacent hexes (those that are upwind); Fire from a Wreck Blaze spreads automatically to Burnable terrain in its Location. Smoke has no effect in scenarios while Heavy Winds are in effect. Wind Force *[EXC: Gusts; 25.651]* does not affect Fire spreading within a building. See A24.61 for the effects of a Mild Breeze on SMOKE. A FT has no Long Range FP (A22.1) during Heavy Winds *[EXC: if being fired directly "with the wind"]*. "No Wind" is always in effect in non-rooftop Locations of an Interior Building hex.



25.64 WIND DIRECTION: If a Mild Breeze or Heavy Winds occur during a scenario, roll a die to determine Wind Direction (B.8). The resulting number corresponds to the direction the wind is blowing to. Mark the direction by pointing the Wind Direction counter along the proper Hex Grain of the mapboard. This direction remains in effect until there is no wind or a direction change occurs as per 25.65. During a Mild Breeze, the Spreading Fire DR is modified by the Wind Direction as per the diagram. Wind Direction does not affect Fire spreading within a building or Flames spreading to Blaze status.



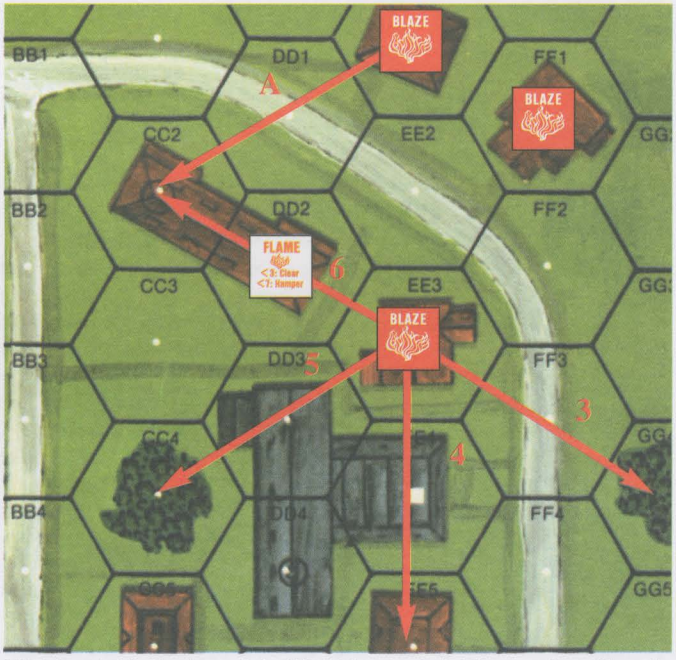
25.65 WIND CHANGES: At the start of each RPh make a DR to determine if the wind will change during that Player Turn. On a DR of 2, a change occurs and a dr is made to determine what the change will be as per the following table:

dr	Wind Change
1	Direction: one hex clockwise (cw)
2	Direction: two hexes clockwise (cw)
3	Direction: one hex counter-clockwise (ccw)
4	Direction: two hexes counter-clockwise (ccw)
5	* Force increases one level
6	* Force decreases one level

* A change of Wind Force beneath No Wind or above Heavy Wind status is treated as a change to Mild Breeze instead. Direction changes have no effect unless there is currently a Mild Breeze or Heavy Winds.

25.651 GUSTS: A Wind Change DR of 12 results in Wind Gusts which have no effect on Wind Force but, for that Player Turn only, allows all terrain Blazes to automatically spread to Burnable Terrain (25.6) in the direction of the Wind (roll for Direction if no Wind). In addition, at least one terrain Blaze currently in effect will spread two hexes during that Player Turn if possible. Determine the Blaze(s) that will spread two hexes by Random Selection from among those with non-burning Burnable Terrain within two hexes of the Blaze in the direction of the wind. Any Flame that spreads two hexes by a Gust appears at ground level in its new hex. A Wreck Blaze automatically spreads only to its own Burnable Terrain Location and is eligible for only a possible one-hex spread instead of a two-hex spread. A Gust eliminates all dispersed SMOKE and disperses all non-dispersed SMOKE currently on the board *[EXC: smoke in a Blaze hex emanating from that Blaze hex is never affected by Gusts]*.

25.66 COLLAPSE: A building Location(s) (determined by Random Selection) in which a Blaze exists (and all levels above it) will collapse (24.12) into burning rubble on an Original Wind Change DR of 12.



EX: The wind is Gusting and the Wind Direction is 5. There are three Blazes in 21FF1, EE1, and EE3, and a Flame in DD2. FF1 is ineligible for the two-hex Fire Spread because there is no Burnable Terrain within two hexes that is not already burning. So only EE1 and EE3 are eligible and subject to the Random Selection

© 2000 Multi-Man Publishing, LLC

DR to determine which Blaze will automatically spread two hexes. The Random Selection DR is Doubles, resulting in both Blazes gaining the automatic two hex spread. A Flame counter is placed in CC2 from the Blaze in EE1. DD3 and CC4 receive Flames from EE3. Had the Wind Direction been 3, a Flame counter would have been placed in GG4; had the Wind Direction been 4, EE4 and EE5 would have received Flame counters. Had the Wind Direction been 6, DD2 would have received another Flame counter and CC2 would have received a Flame counter. Had the Wind Direction been a 1 or 2, no spread would occur.

25.7 EXTINGUISHING ATTEMPTS: Flames are extinguished as per the Fire Clearance rules (24.72) and Flame Extinguished DR (25.151). A Blaze cannot be purposely extinguished during play.

26. WIRE



26.1 Wire is a Fortification counter. It can be placed only at the start of a scenario in amounts specified by that scenario. Wire cannot be moved, and does not affect normal stacking limits. Only one Wire counter is allowed per Location. Wire can be set up in any terrain except buildings, rubble, sewers, marsh, or Water Obstacles (unless frozen). Wire cannot be placed at Crest level in a Depression; i.e., a Crest unit is not considered to be *on* a Wire counter even though it may be placed physically upon it.

26.2 Wire is not an obstacle or LOS Hindrance.

26.3 Wire has no TEM; the TEM of a Wire Location is that of the other terrain in the Location.

26.31 Any Infantry unit on a Wire counter must add +1 to any attack (including CC) it makes (+1 To Hit DRM for ordnance). Infantry on Wire must deduct one from any CC attack against it.

26.32 LOCATION: A unit on a Wire counter and one beneath a Wire counter in the same hex are in the same Location *[EXC: Wire on and beneath a bridge]*. A leader on Wire can still direct and rally a unit beneath the Wire and vice versa.

26.4 There is no additional cost for Infantry to enter a Wire Location beyond the normal COT of that Location. However, when entering a Wire Location (regardless of phase), they are placed on top of the Wire counter (even if disembarking from a vehicle) and must remain there until they expend sufficient additional MF to move beneath the Wire *[EXC: Units returned to a Wire Location after attempted entry of a concealed enemy's Location; A12.15]*. Infantry may move/rout beneath a Wire counter only during their MPh/RtPh (including the same MPh/RtPh they moved on top of it if able to do so), even if they remain in the same Location and only move/rout (Low Crawl) beneath the Wire counter.

To move/rout beneath a Wire counter, each unit must make a dr (Δ) and expend that number of MF to be placed beneath the Wire counter in the same Location. Any remaining MF may be used to move/rout elsewhere normally. Once beneath the Wire counter, a unit may move/rout unhindered, even in the direction from which it originally entered the Location. MF expended in an attempt to get beneath the Wire qualify that unit for the FFMO DRM (if in an otherwise Open Ground hex) and for the -1 First Fire DRM for FFNAM if it expends all of its MF in entering that Location/attempting to get beneath the Wire. A unit on a Wire counter cannot use Sewer/Tunnel Movement. It may declare Assault Movement in its attempt to get beneath the Wire (and even move on to another Location) but if it uses all of its MF in doing so, the Assault Movement status is voided. The DEFENDER is entitled to see the Wire Exit dr before declaring any First Fire against the unit.

Any unit whose Wire Exit dr is > its MF capability uses only its remaining MF, is hung up on top of the Wire, and cannot leave during that MPh/RtPh. A unit must declare movement with a leader before making its Wire Exit dr if it wishes to use the MF bonus thus derived to get off the Wire. However, a unit which started the turn on a Wire counter may decide after its Wire Exit dr whether or not to leave any excess PP on top of the Wire in order to move beneath it (although units pushing a Gun may never push it under Wire; C10.3). A SW/Gun on a Wire counter cannot be Recovered by a unit beneath the Wire (and vice versa). A unit may not use a Minimum Move to get beneath Wire, nor do so in the APh.

As long as Infantry remain on top of a Wire counter, they cannot Search, enter or create an entrenchment, Recover/Transfer a SW/Gun beneath that Wire counter, or enter a pillbox/vehicle counter also in that hex. However, they may engage in CC with units beneath the Wire (albeit at a disadvantage; see 26.31), including units inside an entrenchment or pillbox.

26.41 ROUT: Routing units must pay Wire movement costs during rout in the same manner *[EXC: if they surrender; A20.21]*; if a Wire counter prevents a broken unit from routing away from an ADJACENT armed, unbroken, Known enemy unit (A10.5), it is eliminated or subject to surrender. A broken unit in Open Ground that is within the Normal Range of a Known enemy unit or ADJACENT to a Known armed and unbroken enemy unit, and that fails to pass his Wire exit dr with enough MF to rout into an allowable rout hex (A10.5), is eliminated for Failure to Rout.

26.42 Cavalry, motorcycles, or horse-drawn vehicles may not enter a Wire Location. A glider/parachute always lands *beneath* any wire counter in its hex.

26.43 VEHICLES: Vehicles are never placed beneath Wire, but still affect units above and beneath a Wire counter normally insofar as TEM and LOS Hindrance are concerned. Armored Cars, trucks, and halftracks may enter a Wire Location at a cost of four MP plus the COT of the Location and must check for Bog (D8.21). Fully-tracked vehicles may enter a Wire Location at a cost of two MP plus the COT of the Location and must check for Bog (see also 26.53).

26.44 BYPASS: Non-vehicular Bypass of any hexside that is part of a hex containing Wire is not allowed. VBM is allowed but still requires expenditure of the Wire MP penalty and a Bog Check, although these penalties apply only once per hex (in the first hexside Bypassed)—not per hexside traversed.

26.45 DC: Infantry on top of a Wire counter may not Place, Throw, or Set a DC.

26.46 DOUBLE TIME (CX): Infantry may neither Double Time (A4.5) nor Dash (A4.63) during a turn in which they attempt to move beneath Wire.

26.5 CLEARANCE: Wire can be removed by Infantry using the normal Clearance rules (24.73) or by the following special methods.

26.51 DC: A *Placed* DC can double as a bangalore torpedo and be used to remove a Wire counter with an Original KIA result on the IFT (i.e., an Original DR ≤ 5). The Placing unit cannot be in the same Location with the Wire to remove it *[EXC: Japanese; A23.61]*. The MF cost of Placing a DC in a Wire Location equals the MF cost of the Location the Wire is in; there is no additional MF cost due to the Wire. A Set DC will eliminate Wire with a Final KIA result (A23.7).

26.52 FFE: Concentrated aerial or artillery bombardment could occasionally clear Wire. A Wire counter within the Blast Area of any HE Concentration FFE or Aerial bomb may be removed as a result of its resolution in that Location. There are no modifiers of any kind for purposes of Wire removal; the Wire counter is removed only if a KIA result is obtained with the Original DR. The attack is then resolved with the same Original DR and any applicable DRM vs all other vulnerable targets.

26.53 FULLY-TRACKED VEHICLES: Whenever a fully-tracked vehicle passes a Bog check in a Wire hex, it removes that Wire counter from the hex if the colored dr of the Bog DR is a 1.

© 2000 Multi-Man Publishing, LLC

27. ENTRENCHMENTS

Entrenchments are manmade holes in the earth, dug by troops for protection from direct and indirect attacks. There are two types of entrenchments in the game: foxholes and trenches. The former was more common in WWII and is used here as the basis for our entrenchment rules.



27.1 FOXHOLE: A foxhole is a Fortification counter which can be placed either prior to play per scenario OB limits or during play via the Entrenching rules. Foxholes may be placed in any terrain except paved, Sunken or Elevated Road, bridge, runway, marsh, crag, stream, Water Obstacle, rubble or building. A foxhole does not alter the normal stacking capacity of a hex nor does it create a different Location within the hex *[EXC: see 27.13]*. A unit in a foxhole is placed beneath a foxhole counter, while any other unit in the hex but not in the foxhole is placed on top of the foxhole counter. The only $^{5}/_{8}$" counter which may be fired from/Placed beneath a foxhole counter is a mortar (and even it may not enter/exit unless dm); otherwise, only Infantry/SW may be placed beneath a foxhole counter. Foxholes are listed in a scenario OB by their total squad capacity. The player is free to use as many foxhole 1S, 2S, or 3S counters in his initial setup as he wishes, provided the total squad capacity of those foxholes does not exceed the OB limit.

27.11 ENTRENCHING: Any unbroken Infantry squad (or its equivalent) which has yet to attempt an action during that phase (and is not currently in an entrenchment or on a Wire counter) may place a "1S" foxhole counter above itself and any participating leader(s) in its current hex during its PFPh by announcing an Entrenching Attempt and making a Final DR ≤ 5. A single crew/HS attempting to entrench must add a +1 DRM. A similarly unused leader may apply his leadership modifier to all Entrenching Attempt DR in his Location. Labor Status DRM may be gained for Entrenching Attempts as per 24.8. Regardless of the outcome, all participating units are TI.

27.12 CAPACITY: A foxhole 1S counter has a capacity of one squad (or its equivalent) regardless of how it was created. This capacity is not in addition to the stacking limits of the hex itself. The capacity of a foxhole counter can be exceeded by four SMC. There is a limit of one foxhole counter per hex, with a total capacity of three squads. Should a second or third foxhole be created in the same hex, the Foxhole 1S counter is replaced by a foxhole 2S or 3S counter as appropriate. Any overstacking in the hex occurs outside of the foxhole counter.

27.13 LOCATION: A unit in a foxhole is not in the same Location as a unit outside that foxhole on the same level (not in a pillbox) and in the same hex for purposes of weapon Recovery or TEM, but is considered in the same Location for all other purposes (including CC and LLMC/LLTC).

27.2 A foxhole is not an obstacle/Hindrance to LOS. However, any intervening wall/hedge hexside/hexspine forming a part of a foxhole hex blocks the LOS of units beneath the foxhole counter to all non-adjacent hexes on the same or lower level (see 9.21).

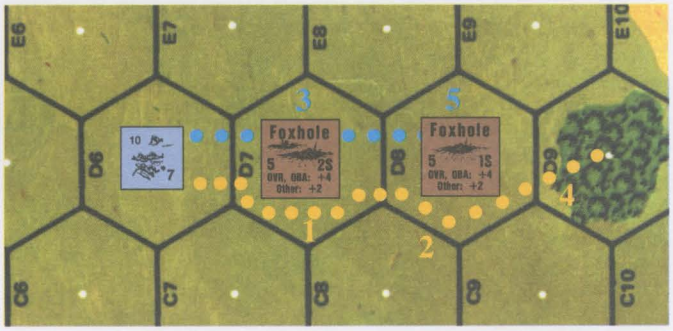
27.3 Any unit beneath a foxhole counter is entitled to a +4 TEM against any OVR *[EXC: an OVR using only FT armament]* or OBA attack, or a +2 TEM to any other type of attack including on-board mortar fire *[EXC: CC, FT]*. A foxhole TEM is not cumulative with that of other positive TEM in the same hex but is applicable in combination with the negative TEM of an Air Burst (13.3).

27.4 The cost of entering a hex containing a foxhole is equal to the COT of the hex entered. However, Infantry moving beneath an existing foxhole counter or from beneath a foxhole counter must pay one additional MF separately after payment of the COT to enter the hex and after suffering any Defensive First Fire that MF expenditure may have enticed. Note, however, that the cost to enter/exit a foxhole/pillbox *during the RtPh* may be combined with the entrance cost of the next hex—thereby escaping Interdiction in the foxhole/pillbox Location (27.41).

EX: A squad moving from a gully hex to beneath an adjacent foxhole at ground level in Open Ground would expend two MF to enter the adjacent hex plus one MF to enter beneath the foxhole.

EX: A squad moving into an Open Ground hex containing an empty foxhole can pay one MF to enter the hex and be placed on top of the foxhole, or one plus one MF to enter the hex and be placed beneath the foxhole. Similarly, a unit in a foxhole must pay one plus two plus one MF to move out of that foxhole and into another foxhole in an adjacent woods hex. In each case the MF expenditure must be announced separately as it occurs (i.e., one MF to enter a hex and one more MF to enter the foxhole within that hex) so that the DEFENDER can intervene to Defensive First Fire at that point if he wishes to do so.

27.41 RtPh: Interdiction possibilities depend on the MF expended in the foxhole hex (A10.531). If a unit expends minimum MF in entering a foxhole hex, it is considered to be moving through the other terrain in the hex and the foxhole has no effect on Interdiction. However, if a unit simultaneously expends an extra MF to move beneath a foxhole counter which has the capacity to receive it, the foxhole nullifies any Interdiction in that hex. The owner of the routing unit must specify all MF expended in the hex entered as he enters the hex; once an opponent claims Interdiction it is too late for the routing player to specify that he wishes to expend further MF to enter that foxhole until that Interdiction is resolved. A unit expending one MF to leave a foxhole in Open Ground is subject to Interdiction in that hex only if the MF is expended without being combined with the MF cost of another hex being entered; if the MF is expended in combination with the MF for entry of another hex, any possible Interdiction must occur in the newly entered hex as per the terrain in that hex.



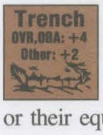
EX: The broken unit in 4D6 may rout through the foxhole hexes in D7 and D8 on its way to the woods in D9 at a cost of one MF each (shown in yellow) but it would be subject to Interdiction in each hex. However, if it followed the blue route and expended three MF in D7 (one to enter D7, one to move beneath the foxhole, and one to exit the foxhole) and two MF to enter D8 (one MF to enter the hex and one MF to move beneath the foxhole), it could not be Interdicted—though it could not reach the woods during that RtPh.

27.42 MPh: The FFMO penalty applies only if Defensive First Fire is announced after the MF expenditure for entry of the hex and prior to the MF expenditure for entry of the foxhole or, conversely, for exit of an Open Ground foxhole if the First Fire is announced prior to the unit's expenditure of another MF to enter another hex.

27.43 Foxholes are not a movement obstacle to tracked vehicles, but do slow down other vehicles and Cavalry as per the Movement Costs Chart.

27.44 A unit may move/advance beneath a foxhole if otherwise able to enter that Location even if an enemy unit exists in that foxhole. The capacity of a foxhole counter is per side; i.e., two opposing squads can both occupy a 1S foxhole during CC.

27.5 TRENCHES: All rules pertaining to foxholes apply to trenches except as modified herein.



27.51 Trench counters may only be placed one per hex prior to play as per scenario OB. A trench (including an A-T Ditch) may not occupy the same Location as a foxhole. A trench may never hold more than three squads and four SMC or their equivalents. Any counter may start a scenario beneath a trench

© 2000 Multi-Man Publishing, LLC

counter, but $^{5}/_{8}$" counters may not be removed from that trench counter during play *[EXC: dm mortars]*.

27.52 Any vehicle beneath a trench counter is considered HD, but may not change its VCA or expend a Start MP.

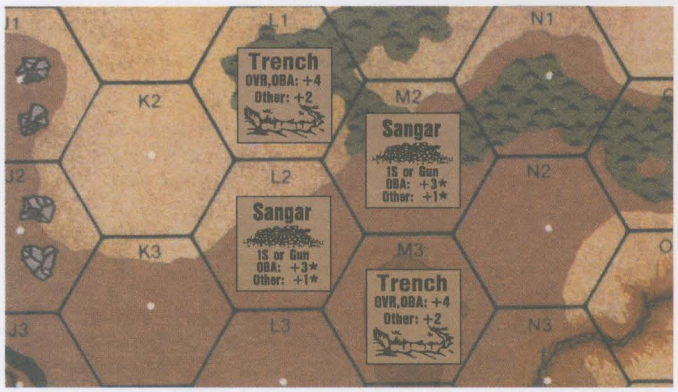
27.53 The beneficial TEM of a trench applies even if enemy units are in an adjacent, connecting trench.

27.54 Trench counters are automatically connected to any adjacent trench counter not separated by a cliff or Water Obstacle. Infantry already beneath a trench counter may therefore move to a connecting trench without paying the extra MF to enter/exit the trench which would normally apply. Infantry moving from one connecting trench to another are never subject to the FFNAM/FFMO DRM, Snap Shots, Interdiction, or minefield attacks. The cost to enter a connecting trench hex is always one MF (unless doubled for a move to higher elevation) regardless of the other terrain in the hex *[EXC: SMOKE]*. Even Wire, walls, or hedges have no effect on movement between connecting trenches (see also 30.8). Units may use Non-Assault Movement between connecting trenches without loss of concealment.

27.55 Wheeled vehicles or halftracks may not enter a trench hex. Fully-tracked vehicles may enter a Trench hex at the COT of the other terrain in that hex but are not considered beneath the trench and must chance a Bog DR when entering/changing-VCA.

27.56 ANTI-TANK (A-T) DITCH: A SSR may specify placement of trench counters as an A-T Ditch or obstacle in order to simulate extensive anti-armor defenses. An A-T Ditch is treated the same as a trench except that no vehicle may enter an unbridged A-T Ditch and Infantry must pay two MF plus COT to enter/exit the counter of an A-T Trench.

27.6 LOWER-LEVEL LOCATIONS:[3A] Infantry beneath a Trench or Sangar (F8.) counter may move/rout/advance/Withdraw-from-CC directly to any Accessible, non-Crest-status *lower-elevation* Location without having to first exit to above that trench/sangar. Such a move/rout/advance/CC-Withdrawal in the opposite direction, from a non-Crest-status position to beneath an Accessible higher-elevation trench/sangar, is also allowed if that Infantry unit and trench/sangar are in the same side's OB and/or the unit's side Controls the trench/sangar. In addition, if a Trench counter and Sangar counter are Accessible to each other, Infantry may move/rout/advance/Withdraw-from-CC from beneath one to beneath the other as if both were trenches (in the same manner as a Bunker; see 30.8) regardless of which side set-up/Controls the one being entered. A Snap Shot taken at a unit that is utilizing the movement benefits of such a trench/sangar/bunker is subject to *Trench* TEM. If a sangar already contains its maximum stacking capacity, a unit wishing to enter that sangar hex must first exit to above any trench it may currently be in and may not utilize trench/sangar movement/TEM benefits to enter that hex. This rule does not apply to Infantry Pushing equipment.



EX: An entrenched Infantry unit in M3 can, if not Pushing a Gun, move/rout/advance/Withdraw-from-CC directly to beneath either sangar at a cost of one MF without losing the protective benefits of the Trench/Sangar counter(s), or it can thusly enter any lower-level Location adjacent to M3 without first having to exit above the trench. If the unit is sangared in L2 it can enter M3 (two MF), L1 (one MF) or K2 (one MF) without first having to exit above the sangar (though it could be subject to FFMO/interdiction in K2); however, it would have to exit above the sangar before it could enter K3, L3 or M2 (and once in M2 would have to expend another MF to enter beneath that sangar). If the unit is sangared in M2 it can enter L1 or M3 in the same manner as entering them from L2, or it can enter M1 at a cost of two MF without first having to exit above the sangar; it must, however, exit above the sangar before it can enter N1, N2 or L2. An Infantry unit in K2 which wishes to move/advance, etc. beneath the sangar in L2 can, if that unit's side had set up and/or presently Controls that sangar, expend two MF and enter L2 going directly beneath the sangar; and the same would hold true for Infantry in M1, or non-entrenched Infantry in L1, wishing to enter the M2 sangar—but Infantry entrenched in L1 could enter the L2/M2 sangar regardless of which side set-up/Controls that sangar. If the L2/M2 sangar already contains a squad, an Infantry unit wishing to enter beneath it must first exit above the trench it might be in, cannot claim Trench movement/TEM as it enters the sangar hex, and once in the sangar hex cannot go beneath the sangar. An Infantry unit entrenched in M3 can enter INTO N3 (three MF) without first having to exit above the trench (and could be subject to FFMO/interdiction IN N3), but would first have to exit above the trench if it wished to directly enter Crest status in N3 without first going INTO it; conversely, only from IN N3 can the unit enter M3 (four MF) going directly beneath the trench—and even then only provided that unit's side had set up and/or presently Controls that Trench. The preceding sentence would still apply if M3 were level 1 hex (though the MF costs would then differ).

28. MINEFIELDS

28.1 Minefields are a form of Fortification but are represented by counters only after they are revealed during play *[EXC: A-T mines in hard-surfaced terrain; 28.53]*. Minefields are available only per scenario OB. The type, Location, and strength of minefields are secretly recorded prior to the start of play by the owning player. Minefields may not be placed in a bridge, paved road, runway *[EXC: Non-hidden A-T Mines; 28.53; Known Minefields (28.45-.47)]*, sewer, marsh, crag, Interior Building Hex, rubble, or Water Obstacle hex. The presence of a minefield is not revealed until a unit susceptible to that type of attack enters that minefield Location or an MMC discovers it by Searching. The minefield's strength is not revealed if the minefield attack results in no effect. An Anti-Personnel (A-P) minefield must be constructed with a strength of 6, 8, or 12 factors and is not reduced in strength due to the resolution of an attack by that minefield.

28.2 Minefields present no obstacle or Hindrance to LOS.

28.3 The TEM of a minefield hex is equal to that of the other terrain in the hex. However, there is no TEM (including FFMO/FFNAM) or FP modifier to a minefield attack *[EXC: A-P minefield attacks are resolved with half FP in Deep Snow and a +1 DRM applies]*.

28.4 There is no additional movement cost to enter a minefield hex beyond that of the other terrain in the hex. However, entry and exit of a minefield hex has other consequences.

28.41 Whenever a unit enters/leaves a minefield hex, the owning player must announce a minefield attack vs the unit (as per A12.11) on the IFT, revealing the minefield factors involved only when necessary to verify the IFT results *[EXC: A-T mines do not attack Infantry/Cavalry; 28.5]*. Once the minefield factors have been revealed, mark the hex with an appropriate strength minefield counter.

28.411 An A-P minefield attack affects only moving/routing/advancing units and those withdrawing from CC. Any other unit in the same Location is not affected. A concealed unit attacked by a minefield is attacked at full (not half) strength and loses its concealment due to that attack (A12.14) only if it breaks or suffers a Casualty Reduction.[4]

28.412 A unit is considered to be in the minefield hex which attacks it when the attack is resolved.

EX: A unit moving from one minefield hex directly to another can undergo two minefield attacks. If it survives the first (exit) attack unaffected, it is moved into the

© 2000 Multi-Man Publishing, LLC

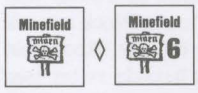
new hex where it must undergo a second (entry) attack in the newly entered minefield hex. However, if broken or pinned by the first attack, it does not leave the original hex and does not undergo the second minefield attack. Consequently, it would not discover concealed units in the hex it attempted to enter or be subject to Snap Shots along that hexside since it failed to leave the initial minefield hex.

28.413 ROUT: A routing unit need not move through a known A-P minefield hex and may opt to take a longer route to a building/woods hex instead. However, if a broken squad is Reduced to a broken HS by minefield attack, that HS may continue its rout in the same RtPh at its option. Should a routing unit also be subject to Interdiction, the Interdiction would be resolved after any minefield attack.

28.42 VEHICLES: Vehicles entering or leaving an A-P minefield hex also undergo attack on the IFT. A-P minefield attacks are always resolved before A-T minefield attacks, and if they result in Immobilization they cancel any yet-to-be resolved A-T minefield attack vs the same vehicle. Unarmored vehicles use the ★ Vehicle line of the IFT normally. Armored vehicles do not use the ★ Vehicle line but are unaffected by minefield attacks resulting in other than a KIA; a KIA result immobilizes an AFV. There is no armor modifier to a minefield attack, but *any* AFV whose lowest hull AF is 0 or whose side and rear are unarmored is treated as an unarmored vehicle for purposes of any type of minefield attack.

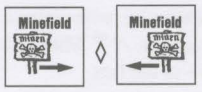
28.43 PRC: PRC are immune to minefield attacks unless their vehicle is eliminated or immobilized. If their vehicle is eliminated, the PRC roll for survival normally. If their vehicle is immobilized, any Vulnerable PRC are attacked Collaterally (all PRC of an *unarmored* vehicle [including those with a 0 hull AF] are considered Vulnerable to minefield attacks). PRC which disembark or Bail Out into an A-P Minefield hex must undergo minefield attack as if they were entering that hex for the first time.

28.44 MINEFIELDS IN BUILDING/TRENCH HEXES: Minefields are allowed in non-Interior Building Hexes but do not attack units entering/exiting those hexes through a building hexside unless using Bypass Movement. Neither would mines attack units using Trench movement, or using a Tower's stairwell.

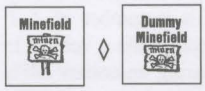


28.45 KNOWN MINEFIELDS: Due to the often mobile nature of the war in North Africa, minefields were usually well marked so friendly troops would not accidentally enter them. Hence, special minefield counters have been included in *WEST OF ALAMEIN*. These are termed Known Minefield counters, and treated as normal mines except as specified otherwise. Known Minefield counters have the normal depiction on the front but list no attack strength; the reverse side has the same but with the strength shown. When Known Minefields are called for in any scenario, during his setup the owner places the desired number of these counters onboard (with their strength-side *down*). Once the strength of such a counter has been revealed, it is flipped over. Known Minefield counters may represent minefields previously discovered by reconnaissance or in a previous engagement; therefore, Known Minefields are set up onboard even in night scenarios. If a Known Minefield counter has its strength reduced or eliminated by OBA/Bomb attack (28.62), that counter is replaced by one having the appropriate new strength (or by a Dummy Minefield counter [28.47] if its strength was eliminated); if its strength was unrevealed at the time, its new strength remains unrevealed. Known Minefield factors may not be exchanged for booby trap capability, nor may Known A-P mines be exchanged for any type of A-T mines or vice-versa. The use of Known mines is not restricted to any type of board/scenario. Known minefield factors have the same BPV as hidden mines, and are indicated on the DYO Purchase Roster by adding "Kn" in the "TYPE" column of "Fortifications" section where the purchase was recorded.

EX: A player whose OB contains 24 Known minefield factors may set up two Known Minefield counters with 12 factors each, or three of 8 factors each, or four with 6 factors each, or two with 6 factors each plus one with 12 factors, etc.

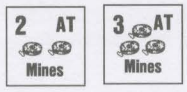


28.46 A second type of Known Minefield counter contains an arrow. Whenever a player wishes to have a multi-hex Known minefield along a Hex Grain (or Alternate Hex Grain), he may place two such counters along it with the arrow on each counter pointing towards the other in the same manner as if they were Barrage counters (E12.11), but with no limit to the number of hexes allowed between them. Such placement indicates that each hex between (and inclusive of) them along that (Alternate) Hex Grain contains a Known minefield. The type(s) and strength(s) of mines (if any; 28.47) in each such hex must still be recorded. A hex containing Known mines can incorporate only one A-P/A-T minefield, regardless of how many multi-hex Known minefields that hex is part of.



28.47 DUMMY MINEFIELDS: Some Known Minefield counters have "Dummy" printed on their reverse side in lieu of a FP factor, thus representing Dummy minefields. When the opponent discovers that it is a Dummy (which must be announced when *any* ground unit enters, or successfully Searches [A12.152], its Location), simply remove it from play *[EXC: if an unmined hex is thusly discovered in a minefield laid out as per 28.46, mark that hex with a Dummy Minefield counter]*. A Dummy minefield is unaffected by a K/KIA resulting from bomb/OBA attack (28.62). The number that may appear beneath a Dummy Minefield counter depiction in a printed scenario OB represents the number of Dummy *counters* allotted. In a scenario that does not allot Dummy minefields (which includes all DYO scenarios), a player may add (at no extra BPV cost) one Dummy Minefield counter to his OB for every 24 *Known* minefield factors he sets up. In addition, in *any* scenario in which a player has received ≥ one Dummy Minefield counter, he may make a Secret dr (halved; FRD) and receives an additional number of Dummy mine counters equal to that result.

28.48 HIDDEN MINES: Known Minefield counters may also be used to mark hexes containing hidden mines whose presence (but not strength) is discovered by either Searching (A12.152) or by a unit's being subjected to a mine attack DR therein. In addition, any "normal" Minefield counter is considered to indicate the presence of Known mines when placed onboard. Normal mines may not be otherwise exchanged for or converted to Known Mines.



28.5 ANTI-TANK (A-T) MINES: At the start of a scenario, a player may opt to exchange all or part of his OB minefield *[EXC: Known Minefield; 28.45]* factor capability for A-T Mines. An A-T Mine can be selected by the defender for every three A-P minefield factors he forfeits. A-T Mines may compose a minefield hex of their own of from one to five factors, or be included in any strength from one to five factors in a normal A-P minefield. A-T Mines are not detonated by traversing Infantry/Cavalry. Only a wagon or a vehicle *[EXC: motorcycles]* may trigger an A-T Mine attack.

28.51 ATTACK: The number of A-T Mine factors per hex is the number which must be rolled ≤ with one die after a vehicle enters/exits an A-T minefield hex in order to cause an A-T Mine attack.[5] During Deep Snow, the A-T Mine factors present in a hex are always considered to be one less than normal and a +1 DRM applies to all attacks. Any A-T Mine attack that causes other than no effect results in loss of "?" to the attacked unit(s), provided it is in the LOS of a Good Order enemy ground unit.

28.52 Each A-T Mine attacks on the 36+ column of the IFT. No TEM are applicable. Vs an AFV a 4 KIA results in a Burning Wreck, a KIA results in elimination, and any other result causes Immobilization. The Aerial AF (C7.12) corresponding to the AFV's lowest hull AF is used as an IFT positive DRM for KIA purposes only. Versus an unarmored vehicle (including any AFV with a hull AF of 0; 28.42), elimination is automatic, but a Burning Wreck applies only on a Final DR of ≤ 6 (i.e., ≤ 1KIA). Random Immobilization does not apply. An A-T Mine detonation has no effect on Personnel in the same hex other than PRC of the same vehicle who must roll for survival normally if the vehicle is elimi-

© 2000 Multi-Man Publishing, LLC

nated, and Passengers/Riders who are attacked Collaterally with halved FP (i.e., 16) on the IFT if the vehicle is immobilized. An A-T Mine attack does not reduce the number of A-T Mine factors in the hex.

28.53 PLACEMENT: A-T Mines may also be placed on a bridge, paved road, ice, or runway where A-P minefields are not allowed, but they must be in full view (i.e., their presence must be marked with an A-T Mine counter although the number of A-T Mine factors is revealed per A12.33) and are eliminated at the end of *the* MPh by any Infantry expending an additional MF in that hex for that purpose which is not pinned, broken, or eliminated in that hex prior to or during that MF expenditure.



28.531 DAISY CHAIN: A SSR may allow a certain number of A-T Mine factors to be placed across a road during the enemy MPh as a Daisy Chain. A Daisy Chain is a number of A-T Mines tied together and pulled across a road while a vehicle is passing. These mines can be placed at any time during an enemy MPh (even as an enemy vehicle enters the placement hex), or during a friendly fire phase of the owner's Player Turn, by an unpinned Good Order Infantry unit possessing that Daisy Chain counter in an ADJACENT hex. Such placement is noted on paper, and not revealed to the opponent until one of his Good Order units has a LOS to the hex containing the Daisy Chain. If the placement is announced immediately after a vehicle expends MP to enter (or change VCA within) the placement hex, the placer then immediately rolls as per 28.51. A Daisy Chain A-T minefield can attack only once; thereafter it ceases to exist. Any Daisy Chain counter which has not yet attacked can be Recovered like any other SW. Placement of a Daisy Chain does not cause loss of concealment, but otherwise is considered use of a SW. The portage cost of a Daisy Chain is one PP per A-T mine factor. All other mine rules apply normally.

28.6 CLEARANCE: Infantry may attempt Minefield Clearance as per 24.74.



28.61 TRAIL BREAK: A TB may also be used to show fully-tracked AFV movement into or through a minefield *[EXC: the TB may not be placed if that AFV is using VBM]*. Units may enter a minefield hex via a TB at twice their normal MF/MP cost (see the example) without coming under minefield attack, but are subject to the TB Defensive First Fire -1 DRM (13.4212). A unit exiting a minefield hex via a TB in that hex is not attacked by that minefield.

EX: Infantry normally expend 1½ MF to enter woods via a TB, while cavalry does so at a cost of 3 MF. However, if they expend twice that MF cost (i.e., 3 or 6 MF respectively) to enter that woods via the TB, they enter free of minefield attack.

28.62 FFE: All A-P and A-T Mines in a hex are eliminated by any HE Concentration FFE or HE Aerial bomb attack resolved in that hex, provided an Original KIA was obtained. If an Original K result is obtained with such an attack, the strength of an A-P/A-T minefield is reduced by one column/factor. If both types of mines are in the hex, the strength of both is lowered. If an A-P minefield is already six FP, it is eliminated instead. The opponent does not have to inform the FFE/bomb player if a minefield is eliminated/reduced.

28.7 FLAIL TANKS: A Flail Tank (U.S. Vehicle Note 20; British Vehicle Notes 24 and 26) may engage in Mine Clearance by specifying at the start of its MPh that it will do so and expending its entire printed MP allotment (other than any MP for Starting/changing-VCA) to enter a hex, using neither Reverse nor VBM nor ESB. It is then marked with a Motion counter and is immune to minefield attack in the hex entered. A Flail Tank clears (i.e., creates as per 24.74) a TB through the minefield in its hex at the end of its CCPh on a Mine Clearance Final DR of ≤ 10 (Δ), provided it did not fire or become Immobile/eliminated during that Player Turn. The TB path cleared must be between the hexside crossed by the Flail Tank and a hexside within its current VCA. A Flail Tank may not clear a minefield occupied by its own Infantry/Cavalry/Vulnerable-PRC.

28.71 On a Mine Clearance Original DR of 12, the Flail Tank is destroyed by any A-T Mines, or immobilized if only A-P Mines are in its Location.

28.72 FLAIL BREAKDOWN: Any Mine Clearance Original DR of 11 destroys the Flail mechanism and prohibits the Flail Tank from clearing mines thereafter. Entering a building/woods obstacle without benefit of a road/TB, also destroys the Flail mechanism. There is no other effect on the tank.

28.8 SAPPERS: Laying hidden minefields during play is NA. However, squads designated by SSR or DYO purchase as Sappers may deduct two (one per Sapper HS) from their Clearance DR (24.74).

28.9 BOOBY TRAPS: Prior to setup, a player may spend some or all of his minefield factors *[EXC: Known; 28.45]* for a Booby Trap capability on a particular board(s). Booby Trap attacks are triggered by an Original TC *[EXC: Sighting TC; E7.3]* DR of 12 if the player has spent ten minefield factors (Level C), or of 11 if the player has spent twenty minefield factors (Level B), or of ≥ 11 if the player has spent thirty minefield factors (Level A). Infantry normally immune to PTC must take them for Booby Trap resolution purposes only, and their PTC cannot activate a Sniper. A Booby Trap attack causes Casualty Reduction to at least one (if any) Personnel unit (as determined by Random Selection, and not necessarily the unit that took that TC) in that Location. Booby Trap capability costs are per board (inclusive of its half-hexes). A player may purchase Booby Trap capability for a board only by SSR—or if he is allowed to set up on any part of that board and, in order to satisfy his victory conditions, does not have to capture terrain or exit the playing area via a non-Friendly Board Edge. Booby Traps do not affect units of the side that placed them, except as per Random Selection caused by an enemy TC. See also A12.154.

29. ROADBLOCKS

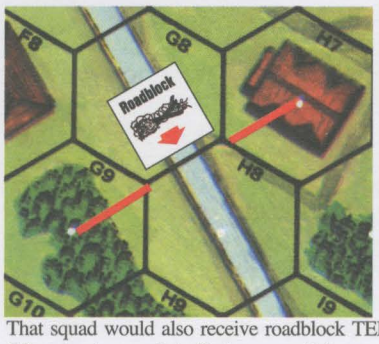


29.1 A roadblock is a Fortification counter that may be set up only prior to the start of play and only in a road or runway Location, with the roadblock's arrow pointing to the road—or runway—hexside obstructed.

29.2 Except as stated otherwise, a roadblock is treated as a stone wall across the hexside to which it points. In addition, the roadblock extends straight along that hexside to the center dot of any Accessible woods/building Location that includes a roadblock-hexside vertex (see the 29.4 example). The roadblock hexside (and any extension) is a Half-Level Obstacle to LOS.

29.3 The TEM of a roadblock (and any extension) is equal to that of a wall in all respects *[EXC: the TEM of the roadblock extension can apply only to Direct Fire]*.

29.4 No vehicle may cross a roadblock hexside (inclusive of vertices and even if HIP); Infantry/ Cavalry may cross such a hexside as if it were a wall. A roadblock on a hexside that is formed by two hexes of different Base Levels is at the higher level and is treated like a Hillside Wall (9.6).



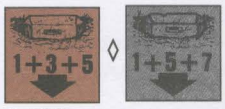
EX: A roadblock in 1G8-H8 extends from the building in H7 to the woods in G9, preventing VBM through (but not just to) the H7-G8-H8 and G9-G8-H8 vertices, and costing Infantry/Cavalry using Bypass there another MF. A squad Bypassing along hexside H7-G8 does not receive the roadblock TEM if fired on from F8 or G9, but would if Direct-Fired on by a unit in H8 that does not have Wall Advantage over the G8-H8 hexside. That squad would also receive roadblock TEM if Direct-Fired on at the H7-H8-G8 vertex by a unit in I8; however, if it was at that vertex Bypassing along hexside H7-H8, it could not claim roadblock TEM when fired on from I8.

© 2000 Multi-Man Publishing, LLC

29.5 REMOVAL: A roadblock can be removed by Clearance (24.76); however, such attempts made by separate stacks must use separate DR. A roadblock can also be removed by any HE attack (including DC; see below) that results in a KIA against the roadblock. A Direct Fire ordnance attack vs a roadblock must use the Infantry (Other) Target Type or a SCW TH Table, adding the roadblock's +2 TEM to the TH DR normally (although Infantry targets in the same Location may have different DRM); its LOS must be traced to the center dot of the Roadblock counter's hex and must also cross the roadblock hexside before/after reaching that center dot. Indirect Fire vs a Location containing a roadblock hexside is resolved vs the roadblock using only its +2 TEM, and vs all other targets in the Location with the same Original DR and all applicable DRM (including a +1 TEM for the roadblock). A DC attack can affect a roadblock only if it is Placed/Thrown through the roadblock hexside into either hex formed by that hexside, or Set in the Roadblock counter's Location.

EX: A squad is moving without Assault Movement behind a roadblock. A Gun using the Infantry Target Type fires at it at six-hex range. The Modified TH# is 8, but the moving squad has a +1 DRM (+2 [TEM] -1 [Non-Assault Movement] = +1) while the roadblock has a +2 TEM DRM. The squad would be hit on an Original TH DR of ≤ 7, but the roadblock would be eliminated only if the Original TH DR was ≤ 6 *and* the IFT DR achieved a KIA.

30. PILLBOXES



30.1 A pillbox is a Fortification counter that can be set up only prior to the start of play, and only in Open Ground (including any road/shellholes but not bridges), brush, orchard, grain or woods. A Pillbox counter must be placed with the arrow pointing at a specific hexspine so as to define the CA (C3.2) of the pillbox. Except for its two CA hexsides, the pillbox hex itself is *not* in the pillbox CA. A pillbox may never change its CA or be placed in the same hex with another pillbox. A pillbox is a separate non-vertical-level Location inside its hex; i.e., units inside a pillbox are in a different Location than units outside the pillbox. [Note that new Pillbox counters are included in *GUNG HO*; although these bear different artwork, they are functionally equivalent to their original counterparts in all respects.]

30.11 A pillbox can vary in size and type of construction as defined by the Strength Factors on the counter. The factors (read from left to right) are as follows:

30.111 STACKING CAPACITY: This is the number of squad-equivalents (A5.5) that may occupy a pillbox. A pillbox may contain one (but not > one) Gun. The pillbox capacity is separate from (i.e., in addition to) hex stacking limits. No vehicle, PRC or animal may occupy a pillbox. Overstacking in a pillbox is NA (A5.6).

30.112 CA DEFENSE MODIFICATION: This is the TEM applied to non-Aerial Direct Fire attacks against the pillbox which originate from a hex within the CA of the pillbox *[EXC: FT (A22.2); AP (30.35)]*. Canister (C8.4) FP is halved vs the CA of a pillbox.

30.113 NCA DEFENSE MODIFICATION: This is the TEM applied to ordnance and FT attacks against the pillbox which do not originate from within the CA of the pillbox *[EXC: AP; 30.35]* or are made by Indirect or Aerial fire. CH are resolved normally *[EXC: the NCA TEM is considered to be zero for CH resolution]*. Canister, MG, IFE and Small Arms fire vs a pillbox, as well as WP NMC vs pillbox occupants (30.34), are NA through its NCA.

30.12 Units in a pillbox are placed beneath the Pillbox counter. Units on top of a pillbox are considered outside it and receive no benefit from the pillbox.

30.2 A pillbox is not an obstacle or Hindrance to LOS. However, LOS from inside a pillbox may be traced only within its CA *[EXC: the pillbox Location and the same-level Location outside the pillbox are ADJACENT; 30.6]*. Units in an adjacent, ground-level Location within a pillbox's CA are treated as being ADJACENT to units in the pillbox (and vice versa) for purposes of Point Blank Fire, FPF, DM, rout, and for DC Placement vs the pillbox. Fire from inside a pillbox into its own hex is limited to CC, or SMOKE grenade placement, or a Thrown DC (30.31), or to vertices of its CA, or to PBF vs units currently crossing the CA hexsides of its own hex. Mortar fire and fire vs an Aerial target are NA from inside a pillbox.

30.3 Pillbox TEM is not cumulative with any other +/- TEM *[EXC: mud/deep-snow TEM, for certain HE attacks; see E3.62 and E3.731]*, but is cumulative with Hindrances and SMOKE.

30.31 DC: The Defense Modifier of a Placed/Thrown DC attack vs a pillbox/its-contents is determined by the hex occupied by the Placing/Throwing unit. If that unit occupies an adjacent hex in the CA of the pillbox or the pillbox hex itself, the attack is modified by the CA Defense Modification. If Placed/Thrown from any other adjacent hex it is modified by the NCA Defense Modification. A DC may not be Thrown into an adjacent hex from inside a pillbox. A DC may be Thrown from inside a pillbox into its own hex outside the pillbox, with both the +3 DRM for a Thrown DC and the NCA TEM of the pillbox applying to the Thrower. A DC cannot be Placed from inside to outside a pillbox. A DC may be Set vs a pillbox only by a unit in that pillbox's hex *[EXC: not if in Crest status]* or Location. Any DC that detonates *inside* (i.e., after being Set within, or Placed/Thrown (A23.61) from and to within) a pillbox is resolved as a Set DC.

30.32 Ordnance TH attempts vs a pillbox/its-contents are resolved on the Infantry (Other) or Area Target Type. There is no Target-Size TH DRM vs a unit/Gun inside a pillbox. Neither a pillbox nor its contents can be Encircled.

30.33 The MF expenditure to enter or exit a pillbox Location (30.4) is a separate action and cannot be combined with any other MF expenditure *[EXC: during the RtPh; 30.41]*. If a unit becomes pinned or broken outside the pillbox, it cannot enter the pillbox Location during the current MPh (or vice-versa). Once it expends the MF to enter or exit a pillbox Location, the unit is considered to be in the new Location before any attack prompted by that MF expenditure can be resolved.

30.34 Since a pillbox is a separate Location, each attack *[EXC: Bombardment; Residual FP; Area Target Type; Aerial bomb; OBA]* vs a pillbox hex can affect the pillbox/its-contents only if the pillbox is predesignated as a target Location. A predesignated attack vs the pillbox Location cannot affect another Location in that hex (or vice-versa) *[EXC: Spraying Fire; Canister]*. A pillbox Location may never contain SMOKE, but the contents of a pillbox can be affected in the normal manner (see A24.31 and C3.74) by a non-Indirect-Fire WP CH in the pillbox hex *if* the unit placing/firing the WP is ADJACENT-to/within-the-CA-of the pillbox. An OVR never affects a pillbox/its-contents.

30.35 AP: Neither the CA nor the NCA Defense Modification nor other TEM applies to an AP/APCR/APDS attack against a pillbox/its-contents, provided the Basic TK# of that ammo type being fired is > *twice* the Defense Modification that would otherwise apply. An AP/APCR/APDS hit on a pillbox is resolved using the normal HE-Equivalency rules (C8.31).

30.4 Infantry enter a pillbox Location in their hex at a cost of one MF. Infantry exit a pillbox Location by paying one MF to enter the pillbox hex *[EXC: tunnel (8.6); bunker (30.8)]*.

EX: A squad moving into a pillbox *hex* in Open Ground must expend one MF to enter the hex and is placed on top of the pillbox. After pausing to undergo any Defensive First Fire, it may then expend one MF to enter the pillbox Location. Similarly, a unit inside a pillbox must pay one MF to move Out of that pillbox Location and into the pillbox hex, where it could be subject to Defensive First Fire. Any SMOKE at ground-level in the pillbox hex would add one MF to the squad's cost to enter the *hex*.

30.41 RtPh: Interdiction possibilities depend on the MF expended in the pillbox hex (A10.531) in exactly the same fashion as is applicable to entrenchments (27.41).

© 2000 Multi-Man Publishing, LLC

30.42 A unit may not move/rout/advance/Withdraw-from-CC into a pillbox Location if an enemy ground unit *[EXC: Disrupted; subterranean; Unarmed; unarmored vehicle with no PRC]* exists in the same hex outside the pillbox *[EXC: RtPh/APh entrance via a tunnel (8.6)]*. See also 30.44 and 30.6.

30.43 A pillbox (and any units inside it) does not affect entry/exit of the pillbox hex *[EXC: during the RtPh; 30.7]*.

30.44 Infantry (even if berserk) may never enter a pillbox Location that contains enemy Infantry, not even via Infantry OVR. A berserk unit must remain in the pillbox hex and attack any enemy unit(s) in that hex until it eliminates them or is eliminated (A15.43; A15.46). Pillbox occupants may fire at occupants of their own hex only as per 30.2, and, because enemy units never co-exist in the same Location with a friendly-occupied pillbox, TPBF and Target Selection limits (A7.211-.212; A8.312) do not apply.

30.45 GUNS: No $^{5}/_{8}$" counter may enter or leave a pillbox during play except as a dm SW. A Gun may set up using HIP in a pillbox (see 30.7).

30.5 ROUT & RALLY: A pillbox is equivalent to a building for both rout *[EXC: Known enemy units; see 30.7]* and rally purposes—except that a broken unit inside a pillbox is never forced to rout (even though it can be made DM in the normal manner).

30.6 SAME HEX: Same-level units inside and outside a pillbox in the same hex are ADJACENT *[EXC: they cannot form a FG with each other; A7.5]*. A unit inside a pillbox may not move/rout/Withdraw-from-CC out of the pillbox if there is an enemy ground unit *[EXC: Disrupted; subterranean; Unarmed; unarmored vehicle with no PRC]* in the same hex; it can only advance out of the pillbox and must halt in the pillbox hex *[EXC: MPh/RtPh exit via a tunnel; 8.61-.62]*. CC is resolved in the normal manner between Infantry units in and outside of a pillbox *[EXC: Hand-to-Hand CC is NA; no Melee results (30.1; A11.15)]*. CC is NA between a vehicle(s)/PRC and a unit(s) in a pillbox. A unit in a pillbox cannot be attacked in CC if there is any friendly ground unit(s) *[EXC: Disrupted; subterranean; Unarmed; unarmored vehicle with no PRC]* in the hex outside the pillbox.

30.7 CONCEALMENT: A pillbox Location is Concealment Terrain; however, "?"/HIP in a pillbox neither halves the FP of, nor adds a TH DRM to, an attack on it/its-contents. The contents of a pillbox cannot be inspected by an opposing player except to verify the details of an announced attack (or successful SMOKE placement) from that pillbox. Once an attack has been made (or SMOKE has been placed) from within a pillbox, all units therein (even if they entered-subsequently/did-not-fire-originally) are considered Known to all other units (even those outside the pillbox's CA) within 16 hexes that have/gain a LOS to that pillbox. If a pillbox sets up hidden, so do its contents.

30.8 BUNKERS: A Pillbox counter in the same hex with a trench and/or in a hex Accessible to a Trench counter's hex is considered a bunker. A bunker is treated as a pillbox in all respects except that a unit may move/rout/advance/Withdraw-from-CC between a bunker and such a trench as if the bunker were also a trench *[EXC: the entry/exit restrictions given in 30.42, 30.44 and 30.6 still apply]*.

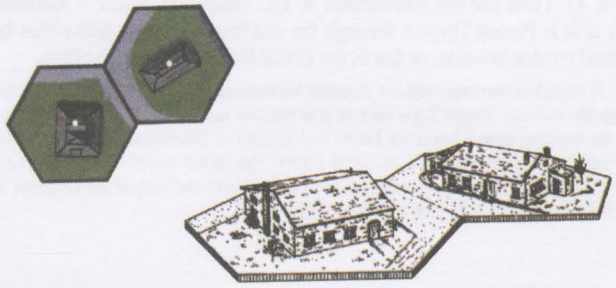
30.9 Pillboxes are Controlled/eliminated as follows:

30.91 CONTROL: In order to Control a pillbox Location, a unit must actually enter that Location. In order to gain Control of a hex, a player must also Control any pillbox Location in that hex.

30.92 ELIMINATION: A pillbox is eliminated by any DC, or *non*-Area-Target-Type ordnance, attack whose IFT Original DR *[EXC: Final DR, for a Set DC; 30.31; A23.7]* vs it/its-contents is a KIA, provided that KIA's # is ≥ the pillbox TEM that applied to the DC-IFT or ordnance-TH DR. For pillbox-elimination purposes only, the KIA's # is increased by two if the KIA was caused by a Placed/Set DC. A pillbox is also eliminated by an Indirect-Fire CH from any Gun, or OBA, of ≥ 70mm *[EXC: of ≥ 100mm, vs a "gray" pillbox]*. When a pillbox is eliminated, *all* of its contents are also eliminated, along with any tunnel entrance in that pillbox Location. A pillbox may also be eliminated by Falling Rubble (24.121), Bombardment (C1.822) or a dozer (G15.21).

EX: An Original 1KIA result caused by a Placed-DC attack vs a pillbox/its-occupant(s) becomes a 3KIA, but *only* for the determination of whether or not that pillbox (and its contents) is eliminated.

A 150mm Gun within the CA of a "brown" pillbox fires HE at it using the Infantry Target Type, and achieves a hit. If the Original IFT DR is ≤ 3 (i.e., a 3 KIA or better on the 30-FP column), that pillbox and its contents are eliminated.



31. VILLAGE TERRAIN [6]

31.1 NARROW STREET:[7] A Narrow Street is represented by a road depiction overprinting ≥ one hexside (EX: hexside 46Z2-AA3). A Narrow Street can be paved or unpaved.



31.11 MOVEMENT: A Narrow Street is always one-lane[8] (i.e., the restrictions of 6.43-.431 apply as if that "road" were a one-lane bridge). A unit Bypassing along a Narrow Street hexside is always assumed to be on the road within its hex—and, if that hexside is also a Crest Line hexside, in the *lower* of those two hexes. VBM along a Narrow Street is allowed regardless of hexside-to-obstacle clearance (D2.3), and costs *half* the normal Bypass MP expenditure *[EXC: VCA change (D2.33) remains one MP (MF for a Wagon)]*. Infantry/Cavalry Bypassing along a Narrow Street pay normal Bypass MF costs, but can still (as could a Wagon) qualify for the MF road bonus (3.4). Contrary to the 3.4 example, a unit moving along/across a Narrow Street hexside cannot enter an obstacle at the road MF rate. Dashing (A4.63) across/along, as well as routing along, a Narrow Street is NA.[9] SMOKE in *either/both* of the two ground-level Locations common to a Narrow Street hexside adds an extra MF/MP to the cost of using Bypass along that hexside *[EXC: if the hexside is also a Crest Line hexside, only SMOKE in the lower hex can do so]*.

EX: See the 31.141 EX. If squad G Bypasses along Narrow Street hexside K13-L12, it must still pay to enter building K12 (+1 MF for crossing the roadblock) even though part of that Narrow Street extends into K12. The same would be true if squad G moved from L13 into the K13 building.

31.12 MOVEMENT RESTRICTIONS: The following movement-related restrictions apply on a Narrow Street (see also 31.14):



31.121 TCA: A turreted vehicle with a MA Caliber Size of ≥ 50mm *and* a Barrel Length of other than "*" may be Non-Stopped on a Narrow Street only if its TCA coincides with its VCA or "rear" VCA.

31.122 TCA CHANGE: A vehicle with a MA Caliber Size of ≥ 50mm attempting to change its TCA relative to its VCA while on a Narrow Street must first make a Final TCA-Change dr of ≤ 3. (See also 31.121.) A maximum of two such dr per vehicle may be made per phase. In its MPh, each failed TCA-change attempt costs the vehicle two MP. Only the following cumulative drm can apply:

© 2000 Multi-Man Publishing, LLC

+2 "LL" Barrel Length	+x Armor Leader modifier
+1 "L" Barrel Length	–1 "*" Barrel Length
+1 If BU	

31.123 VCA CHANGE: A motorcycle may expend 1/4, while a very small (D1.75) Target Size vehicle may expend 1/2, of its printed MP allotment to change its VCA 180° while on a Narrow Street. No other vehicle type may change its VCA *[EXC: as per D2.33]*, nor may any vehicle change its VCA as part of a Motion attempt (D2.401), while on a Narrow Street.

31.124 TOWING: A vehicle towing a Gun or trailer *may* use VBM along a Narrow Street unless otherwise prohibited. However, such a Gun cannot be unhooked while in Bypass during play. A trailer may be unhooked while in Bypass during play (and is eliminated for all purposes thereafter), but only by the crew of the vehicle towing it.

31.125 (UN)LOADING: PRC may (un)load (and their possessed 76-107mm MTR [C10.1] may be "[un]hooked") from/onto a vehicle on a Narrow Street into/from either/both of the ground-level Locations forming that hexside.

31.126 RUBBLE/BLAZE/WRECK: All Bypass along a Narrow Street hexside is NA if either/both of the *hexes* forming that hexside contain(s) another vehicle/wreck in Bypass along that hexside, a Blaze counter *[EXC: burning wreck along another hexside]*, and/or a Rubble counter. No wreck (or Immobile vehicle) on a Narrow Street may be removed as per D10.4.

31.13 ATTACK EFFECTS: The following special cases apply to attacks by/vs a firer/target in Bypass on a Narrow Street (see also 31.141-.142):





31.131 SMOKE/RESIDUAL-FP: SMOKE/Residual-FP in *either* of the two ground-level Locations common to a Narrow Street hexside can affect a unit in Bypass along that hexside. However, if *each* such Location contains SMOKE/Residual-FP of a different strength from that in the other Location, only the *higher* amount applies. *[EXC to both: If that hexside is also a Crest Line hexside, the SMOKE/Residual-FP in the lower-Base-Level hex applies.]*



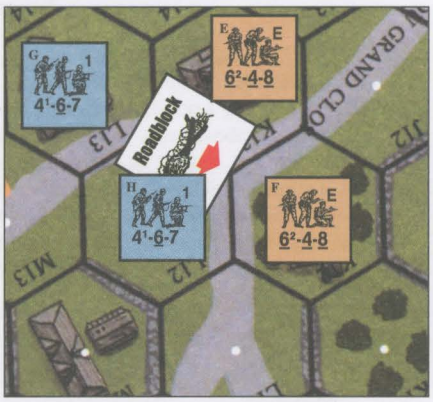
31.132 CC: A vehicle on a Narrow Street is subject to Street Fighting (A11.8) when attacked in CC (including CC Reaction Fire) if its attacker occupies the ground level of a building in one of the two hexes common to that Narrow Street hexside. A +1 DRM applies to all CC CMG attacks by a vehicle currently in CC/-Melee on a Narrow Street.

31.14 FORTIFICATIONS: Fortifications not normally allowed in a paved road hex may be placed in a hex with ≥ one paved Narrow Street hexside unless prohibited by other terrain in the hex.



31.141 ROADBLOCK: A roadblock may be placed "across" a Narrow Street by setting up the counter so that it straddles, with its arrow pointing to a *vertex* of, that hexside. For LOS and movement purposes, the roadblock is considered to extend from center dot to center dot of the two hexes formed by that hexside. A Narrow Street roadblock cannot convey Wall Advantage, provides *no* TEM vs Indirect Fire or Residual FP, and prohibits VBM *along* the straddled hexside. As a non-Bypassing unit *crosses* a hexside that is straddled by a Narrow Street roadblock, it must declare a vertex of that hexside in order to establish, vs any ensuing Snap Shot, which "side" of the roadblock it is on (thus determining whether it will be able to claim the roadblock's protective benefits vs that attack). LOS to such a roadblock requires LOS to the entire straddled hexside (ignoring the roadblock itself) but HIP loss also occurs per A12.33. (See Example in right-hand column of this page.)

31.1411 REMOVAL: Clearance attempts vs a Narrow Street roadblock can be made only from any of the four ground-level Locations that touch the straddled hexside. A unit wishing to use a DC to eliminate a Narrow Street roadblock must occupy one of the three hexes that form a vertex of the straddled hexside, and must declare the attempt to eliminate it. The DC is then Placed/Thrown/Set vs that *vertex*, and can affect nothing but the roadblock when it detonates. Direct Fire ordnance can eliminate a Narrow Street roadblock only if the firer has a LOS to the entire straddled hexside and declares the roadblock as its sole target prior to firing; the attack can affect nothing but the roadblock. Indirect Fire HE eliminates a Narrow Street roadblock with the proper result vs *either* of the two ground-level Locations that form the straddled hexside. 29.5 applies otherwise unchanged.



31.141 EX: A roadblock has been placed in hexes PBL12-K13, with its arrow pointing toward the L12-K13-K12 vertex. Since the roadblock is considered to extend from the center dot of L12 to the center dot of K13, squads F and G have *no* LOS to each other (9.2), and squad H can claim neither roadblock TEM nor Wall Advantage if fired on by squad F. Squad G must also expend one MF to cross the roadblock if it Bypasses directly to vertex L12-K13-K12 (the two MF being expended simultaneously).

Squad H may enter K12 (whether entering or Bypassing the building) without the roadblock affecting its entry cost. If it directly enters building K13, its owner must declare if it crossed the hexside on the vertex L12-K13-K12 or L12-K13-L13 side of the roadblock; if he chooses the latter, an ensuing Snap Shot conducted by squad F (or by any other unit—including one in Bypass at vertex L12-K13-K12—whose LOS to vertex L12-K13-L13 first crosses the roadblock) will be subject to the roadblock's TEM. If squad E enters K12 by Bypassing along Narrow Street hexside L12-K12, each ensuing attack vs it *[EXC: Indirect Fire; (C.1)]* at vertex L12-K12-K13 by any unit whose LOS to that vertex first crosses the roadblock will likewise be subject to roadblock TEM.

A vehicle (tracked or not) in L11 moving to J12 would pay 1 MP along the L12-K12 hexside (half the normal 2 MP for Bypassing in Open Ground), plus 2 MP for the VCA change and entry onto the K12-K13 hexside, regardless of CE/BU status.



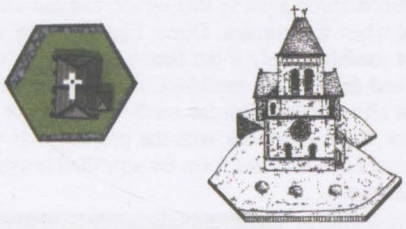
31.142 MINES: All mines set up in a hex that contains ≥ one *paved* Narrow Street hexside must be placed on-map revealed (i.e., with the type and strength of that minefield displayed) unless all the Narrow Street hexsides of that hex are also Crest Line hexsides formed by lower-Base-Level hexes. The removal of such revealed mines as per 28.53 is NA. Mines in *either* of the two hexes common to a Narrow Street hexside (or in both such hexes, if one contains A-P mines and the other A-T mines) can possibly affect a unit using Bypass along that hexside; however, if *each* such hex contains mines of the same type but of a different strength from that in the other Location, only the *higher* strength can be used to attack the Bypassing unit. *[EXC to both: If that hexside is also a Crest Line hexside, only the mines in the lower-Base-Level hex are used.]*

EX: See the 31.141 illustration, and assume that L13, K13, and K12 contain A-P minefields of six, eight and twelve factors respectively, which have to have been set up revealed. Any unit Bypassing along the L13-L12 Narrow Street hexside, regardless of which hex that unit occupies, will be attacked by the six-FP L13 minefield. A unit Bypassing along the K12-K13 Narrow Street hexside would undergo the twelve-FP attack of the K12 minefield. Note that mines set up in D11 (not shown) could use HIP since its sole Narrow Street hexside is unpaved.



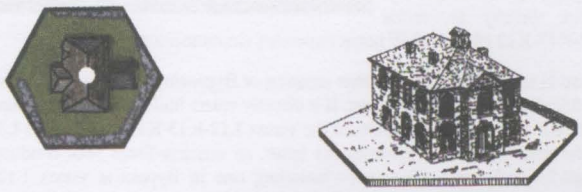
31.15 RUBBLE: Placing a Rubble counter in a *hex* that contains a Narrow Street hexside eliminates any roadblock across that hexside, affects all units/equipment currently in Bypass (in either/both hexes) along that hexside as if they were hit by falling rubble (i.e., as per 24.121), and eliminates all mines along that hexside (in both hexes).

© 2000 Multi-Man Publishing, LLC



31.2 STEEPLE: A building hex with a black center dot in a white cross (EX: 46AA7) denotes a church with a Steeple Location in that hex—i.e., an additional building Location, with an inherent stairwell leading to it from ground level, above what would otherwise be the highest building Location of that hex. Except as stated otherwise, a Steeple Location is treated as a normal building Location *[EXC: it cannot be Fortified, has no Rooftop Location, and the +1 drm for stone rubble determination (24.11) is NA]*. Each building Location in the hex beneath the Steeple Location is a normal building Location in all respects.

31.21 STACKING: A Steeple Location has a normal stacking limit (A5.1) of one HS-equivalent. No Gun may be set up in a Steeple Location.



31.3 SINGLE-HEX TWO-STORY HOUSE: A building with a *large* white center dot (EX: 45E8) is a $1^1/_2$-level LOS obstacle with both a ground- and first-level Location and an inherent stairwell. Like a Single Story House (23.21), it has no Rooftop Location. In all other respects it is a normal building.

32. RAILROADS[10]

32.1 RAILROAD TYPES: There are four types of Railroads[11] (RR): Ground Level RR (GLRR) which exist at ground level, Embankment RR (EmRR) which are a half-level obstacle, Elevated RR (ElRR) which are a one level obstacle, and Sunken RR (SuRR) which are a -1 level Depression. Even though the art work is different, double and single track RR are treated in the same manner for the purpose of RR rules. RR are represented by black rails on a grey-blue and brown rail bed. A hexside that is crossed by a RR depiction is termed a RR Hexside.

32.11 Railroads use *all* rules, except as otherwise stated, pertaining to paved Roads at the corresponding Level: Ground Level (3.), Sunken (4.), or Elevated (5.) *[EXC: The MF/MP cost to enter a RR hex is different from that of a paved road (see 32.3); Dash, Road Bonus, Road Movement rate, and the -2 Manhandling DRM for crossing a road hexside are NA; and Hidden Mines may be placed in a RR hex]*.

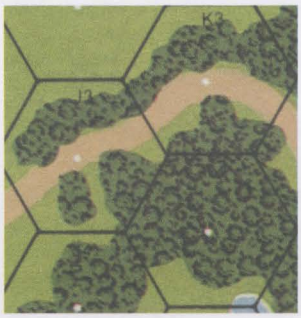
32.12 EmRR hexes are treated as Hillock (F6.) hexes for LOS, TEM, and COT purposes and units/wrecks in an EmRR hex are considered to be *on* a Hillock (F6.41-.412 and F6.51-.52). Otherwise, EmRR are treated as Paved Roads as per 32.11.

32.13 Whenever GLRR and ElRR overlays are joined together, treat the two adjoining overlay hexes as EmRR hexes. Non-bypass units in RR hexes of the same railroad are treated as being at the same level as each other for all LOS between them that cross only RR hexsides (*exclusive* of vertices).[12]

32.14 RR BRIDGES: A GLRR overlay may cross a depression hex (e.g., gully, stream, canal, river), in which case the depression terrain continues to exist as a separate Location beneath the RR. The GLRR crosses the depression on a stone bridge (6.) which extends to the hexsides of the two adjoining RR hexes, while the depression encompasses the entire Location below the overlay.

32.2 OTHER TERRAIN:[13] Although the RR hexes on overlays provided in *DOOMED BATTALIONS* contain no other terrain *[EXC: potential RR Crossings, 32.4]*, other terrain types (woods, grain, brush, etc.) could potentially exist in a RR hex (by SSR or via future overlays). Except for GLRR hexes, this additional terrain would not be at the base Level of the hex (i.e., not at the same level as the RR), but rather would be considered to be at the level that the RR hex itself rises from (for EmRR and ElRR) or falls from (for SuRR) *[EXC: bridges]*.

32.21 If the height of the other terrain in the hex is ≤ the height of the RR (e.g., an EmRR or ElRR in a brush hex), the other terrain has no effect on LOS into the RR hex or to LOS that crossed the RR depiction; units in a RR hex are considered to be in Open Ground *[EXC: Infantry/Cavalry expending MF to enter ground-level non-Open-Ground terrain (32.3); units which qualify for pillbox/shellhole/artificial-terrain-(B.9) TEM]*. The -1 Air Burst TEM for woods does not apply to units in an ElRR hex since the woods are no higher than the RR.



EX: If the road in J3 and K3 were an ElRR, then a unit in K3 would be considered in Open Ground to any unit which it did not have Height Advantage over, and any LOS to it would be unaffected by the woods in its hex. If the road were instead an EmRR or a GLRR, then a unit in K3 would be considered in Open Ground only to LOS entering across a RR depiction (e.g., from a unit in J3).

32.211 If the height of the other terrain in the hex is > the height of the RR (e.g., a GLRR in a woods or brush hex), the principles of woods-road hexes (A4.132 and 13.3-.32; 14.6 for orchards) are used for LOS/LOF purposes, treating a moving unit which crosses a RR hexside at the RR rate (i.e., does not expend MF/MP for the other terrain in the hex) as though it crossed a road hexside.

32.3 MOVEMENT: The MF/MP expenditure required to enter a RR hex is determined (per the Railroad Movement Costs Chart found on the Chapter B Divider) by the type of hexside being crossed (i.e., RR hexside or non-RR hexside) and whether or not a higher elevation is being entered (e.g., going from GLRR to EmRR or going from EmRR to ElRR). Additionally, Infantry/Cavalry units may, while crossing a GLRR hexside, actually enter the non-Open-Ground terrain (if any) in a RR hex by expending the necessary MF.

32.31 BYPASS: Units bypassing a woods-RR along a RR hexside (i.e., crossing the RR tracks) expend the MF/MP for crossing a non-RR hexside, excluding the COT of the woods being bypassed. Bypass along a non-RR hexside (i.e., parallel to the tracks of a woods-RR hex) is only allowed in GLRR hexes and costs normal Open Ground (or Brush) MF/MP.

EX: See the 32.21 illustration: If the road were either an ElRR or an EmRR, the woods could not by bypassed and a unit in J3 could enter K3 only by using the RR. If the road were a GLRR, a unit in J3 could bypass the woods in K3 along the J2/K3 and K2/K3 hexsides, or, if Infantry/Cavalry, could enter K3 without using the RR by paying the woods COT (thus getting benefit of the woods TEM).

32.32 ELEVATION CHANGES: When crossing a RR hexside, the maximum elevation change encountered is one half-level. A Railroad changing from GLRR to SuRR or vice versa does not change levels; only its relationship to the other terrain changes.

EX: Infantry entering a brush hex containing an ElRR across a RR Hexside expends 1 MF. It could not expend extra MF to enter the brush terrain since this is

© 2000 Multi-Man Publishing, LLC

not a GLRR. Infantry entering the same hex from a ground level hex across a non-RR Hexside expends 4 MF (2xCOT).

EX: A halftrack entering this same hex across a RR hexside would expend 2 MP (3 MP if gaining elevation). If entering across a non-RR Hexside it would expend 7 MP (5 + COT) and would take a Bog Check with a +1 DRM (32.33).

32.33 BOG: Only tracked vehicles can enter an ElRR hex across a non-RR Hexside and they must make a Bog Check DR (D8.2) when doing so.[14] Halftracks must add a +1 DRM to that Bog Check DR. Whenever other terrain *[EXC: Mud/Deep-Snow/Walls/Hedges require a separate Bog Check]* in the hex would require a Bog Check DR, only one DR is made, but with an additional +1 DRM; halftracks would therefore add a +2 DRM.

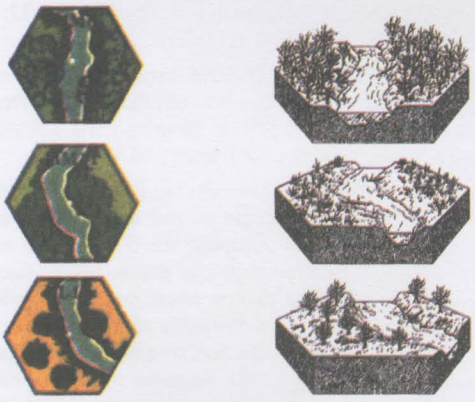
32.4 RR CROSSINGS: A road that runs up to a RR hex and continues beyond it in an adjacent non-RR hex crosses the RR via one of the four types of RR Crossings (RR-Xing) in 32.41-.44. A unit entering a RR-Xing via a road hexside may elect to pay the normal non-RR-hexside COT rather than use the road *[EXC: ElRR-Xing and SuRR-Xing (32.43-.44)]*.

32.41 GROUND LEVEL RR CROSSING: In a GLRR-Xing, the RR and the road are both at ground level. A unit crossing a road hexside may enter at the normal road rate.

32.42 EMBANKMENT RR CROSSING: In an EmRR-Xing, the RR and the road are both at level 1/2 (32.12). A unit which enters using the road incurs no additional cost for changing elevation.

32.43 ELEVATED RR CROSSING: In an ElRR-Xing, the RR is elevated and the Road is one level lower. The RR crosses the road on a stone bridge (6.) which extends to the hexsides of the two adjoining RR hexes. A unit entering an ElRR-Xing via a *road* hexside is at ground level in a separate Location underneath the bridge and *must* enter the hex at the road rate. A unit must cross a *RR* hexside in order to enter/exit an ElRR bridge Location *[EXC: by Scaling (23.424)]*. Normal bridge rules (6. and 5.21) apply to RR bridges *[EXC: only Infantry/Cavalry may enter/exit the road Location via a RR hexside]*.[15]

32.44 SUNKEN RR CROSSING: In a SuRR-Xing, the RR is sunken, and the Road is one level higher. The Road crosses the RR on a Stone Bridge (6.) which extends to the hexsides of the two adjoining road hexes. A unit entering a SuRR-Xing via a *road* hexside *must* enter the Bridge Location at the road rate *[EXC: Infantry/Cavalry may expend the normal non-RR-hexside COT to enter the RR Location]*.[16]



33. STREAM-HEX TERRAIN

33.1 STREAM-WOODS/BRUSH/ORCHARD: Board 47 features stream-woods (EX: 47F6) and the *KGP* maps feature stream-woods (EX: StMM6), stream-brush (EX: StMM11), and stream-orchard (EX: StLL14) hexes.[17] Each such supplemental terrain type always rises (to its normal Height) from the Crest level of–not from IN–the stream hex. See also 19.5-.52.

33.11 ENTRY: A unit enters a stream (including a dry stream)—woods/brush/orchard hex across a stream hexside at the normal (for its depth; 20.4-.44) stream cost. If entering across a non-stream hexside, movement costs are *cumulative* (e.g., five MF to enter a shallow-stream woods/brush hex–three for a shallow stream (20.42) plus two for the woods or brush–or four MF to enter a shallow stream-orchard hex or a dry stream-woods hex. AFV Riders are unaffected by woods/orchards while IN the stream.



33.12 CREST: All rules for Crest status (20.9) apply in a stream- woods/brush/orchard hex. *[EXC: Good Order Infantry may gain Crest status in such an Accessible hex, along the non-stream hexside they cross, at a cost of three MF for a stream- brush/woods hex or two MF for a stream-orchard hex. Otherwise, 20.91 applies unchanged.]*

33.13 TEM: Disregarding SMOKE and Hindrances, a unit IN a stream(including dry stream)- woods/brush/orchard hex is in Open Ground if the LOS INTO that hex emanates from within, or lies within the stream depiction (20.2) as it enters, that hex. Otherwise, a unit in/IN such a hex is not in Open Ground and can claim the hex's woods, brush or orchard (or entrenchment, if applicable as per 20.91-.92) TEM *[EXC: Air Burst TEM can also apply to a unit(s) IN a stream-woods hex]*.





34. TOWERS[18]

34.1 Towers represent tall, narrow, building-like structures that contain an upper level Location with no ground level Tower Location (although the *hex* contains a Location at ground level). Towers are represented by an obviously round, single-hex structure containing a white, square stairwell symbol (EX: PBC9 in *Pegasus Bridge*). A Tower (but not the ground level Location of its hex) is treated as a wooden building unless otherwise stated.

34.2 The height and LOS characteristics for each Tower are specified by SSR. Towers will be defined by SSR as being either a LOS obstacle *or* Hindrance. Each Tower contains only a single Tower Location that exists at a Level above ground level which is specified by SSR; the Tower Obstacle/Hindrance height is 1/2 Level above the SSR designated Tower Location height.

EX: An SSR reads, "Hex PBC9 contains a Tower Hindrance with a Tower Location 1 Level above ground level," describes a 1 1/2 Level LOS Hindrance.

34.21 STACKING: The stacking capacity of a Tower hex's ground level Location is unaffected by the presence of the Tower. A Tower Location has a normal stacking limit (A5.1) of one HS-equivalent and 5PP. Towers have no Rooftop Locations and may never be fortified.

34.3 TEM: A unit at the ground-level Location of a Tower hex is considered to be occupying the other terrain in that hex and so uses the TEM of that other terrain. A Tower Location has a TEM of 0, although units therein are eligible for the +1 Height Advantage TEM. Units entering a Tower hex/Location are never subject to FFMO.

34.31 AIR BURSTS: Locations of a Tower that are in a woods hex are subject to Air Burst TEM only if those Locations are not higher than the top-most Level of those woods.

© 2000 Multi-Man Publishing, LLC

34.4 MOVEMENT: The cost for Infantry to enter the ground level of a Tower hex is 1 MF plus COT. Cavalry may only enter a Tower hex using bypass movement. A Gun may neither set up in nor enter, nor may a dm 76-82mm mortar be assembled in, a Tower hex/Location.

34.41 Vehicles must use VBM to enter a Tower hex. Fully-Tracked, BU, CT, AFV may also enter the Tower obstacle as per 23.41 *[EXC: a Tower has no cellar and adds an extra -1 drm to the colored dr of the AFV's Bog Check as though the tower was a single story building].*

34.42 Infantry may move to/from a Tower Location via the Tower's stairwell or by Scaling (23.424). Movement along a stairwell costs 1 MF per Level changed and is subject to movement penalties for Snow. A unit may never end its MPh in an intermediate stairwell Location (i.e., it must end its MPh either in the Tower Location or in the Tower Hex's ground level Location).

34.43 Infantry moving to/from a Tower Location via the Tower's stairwell may be attacked at ground level (if descending) and/or the Tower Location (if ascending) in the normal manner. If there is a second-level Location, however, they may also be attacked at the first-level "quasi-Location" of that hex by a unit that has a LOS to that quasi-Location. Such a quasi-Location is not considered Open Ground, but such an attack vs it receives no TEM. The target is assumed to expend one MF per level changed; if pinned or broken while at that quasi-Location it reverts to the level it was attempting to *leave* (and may be attacked by any Residual FP at that level as it re-enters it). The Residual FP left by an attack vs such a quasi-Location remains at that level (place the Residual FP counter on the appropriate Level counter) to attack each unit subsequently entering that level in that hex during the same MPh.

34.5 CONCEALMENT: The other terrain in a Tower hex determines whether or not the ground-level Location of that hex is Concealment Terrain. A Tower Location is treated as a building Rooftop (23.82) for HIP/concealment purposes (only).

34.6 ROUT: A Tower hex/Location is not considered a building for rout purposes.

34.7 The ground level Location of a Tower hex is not considered a building Location for Victory purposes, but any Tower Location is.

CHAPTER B. FOOTNOTES

1. *6.1 BRIDGES:* The term "stone construction" is used to define any heavy construction material other than wood. A "stone" bridge or building is just as likely to be made of reinforced concrete, bricks, or other masonry materials.

2. *6.5 BURNING:* Burning bridges as a game tactic is so damaging to most scenario Victory Conditions that it is usually not allowed. Realistically speaking this is not as bad as it sounds, for the battlefield commander never had the omniscient view of the battlefield that the player enjoys, nor did he have set Victory Conditions that could be neatly achieved by burning a bridge without regard to the stragglers who might be left behind—or the sudden appearance of reinforcements needing that same bridge to counterattack. In short, the decision is too important and too easy for the player to be entrusted with lest he abuse the privilege.

3. *7. RUNWAYS:* Although paved runways were hardly commonplace battlefields, they proved to be among the most lethal terrain the "poor bloody infantry" could cross in the face of enemy fire. Going to ground on macadam/concrete surfaces provided no relief from incoming fire, whose explosive force and fragmentation had no chance to be muffled in the earth; indeed, the hard surface increased the ricochet danger from spent rounds and short-falling fire.

3A. *27.6 LOWER LEVEL LOCATIONS:* These rules have been included to reflect the fact that in a fortified line (which is what trenches usually represent) communication trenches linked the various defensive positions. It wouldn't make much sense to fortify a hilltop but not provide a protected access route to it. Sangars were included to further emphasize the benefits inherent in a well-planned position.

4. *28.411 A-P MINE ATTACK:* An A-P minefield "attack" does not necessarily indicate that a detonation has occurred. It merely indicates that the unit is at risk while moving through the minefield. If a unit survives a minefield attack, even by passing a MC, it is assumed to have avoided tripping any mines. A unit that pins is considered to have discovered the mines and gone to ground, but has not actually been attacked by them. A detonation occurs only if the unit breaks or is Reduced/eliminated.

5. *28.51 A-T MINE ATTACK:* Unlike an A-P minefield attack, an A-T mine attack indicates that a detonation has occurred.

6. *31. VILLAGE TERRAIN:* With the introduction of HASL modules *RED BARRICADES*, *KAMPFGRUPPE PEIPER*, and *PEGASUS BRIDGE*, new terrain types representing the particular historical battlefields were developed. While some of these terrain types are very specific to the particular battle (e.g., Roofless Factory Hexes in *RB*), others are more representative of Europe in general. We felt that some of these terrain types warranted wider use than just the original HASL map sheets. In order to utilize them on the geomorphic boards, they had to be included in Chapter B. Since we were expanding Chapter B in *DOOMED BATTALIONS* to include rules for the new Railroad terrain, we have taken the opportunity to include some of these HASL terrain types as well.

The Village Terrain rules were originally developed to deal with specific situations in the HASL modules. Single-Hex Two Story Buildings were introduced in *RB*, while Narrow Streets and Steeples were introduced in *KGP*. All were used in *PB*. The two new building types are included on board 45 and overlays in *DOOMED BATTALIONS*, and on Board 46 along with Narrow Streets.

7. *31.1 NARROW STREET:* Many European villages and hamlets had very narrow streets, which are represented on the map board by "hexside roads." Such streets were notorious for restricting the maneuverability of even average-sized vehicles.

8. *31.11 ONE-LANE:* Here "road" is defined to mean a string of ≥ one contiguous Narrow Street hexside between the two vertices/hexsides where that string either ends (EX: vertex PBDD10-DD11-EE11), joins with two other Narrow Street hexsides (EX: vertex K12-K13-L12), or becomes a non-hexside road (EX: vertex J12-K12-K13). Hence, each of the following constitutes a separate "road" for one-lane purposes: hexsides K9-L9 and K10-L9; hexsides K13-L12 and L13-L12; and single hexsides B16-C16; P12-P13; K12-K13; K12-L12 and so on.

9. *31.11 DASHING/ROUTING:* Dashing across/along a Narrow Street is NA mainly to prevent any conflict between the rules for First Fire vs a Dashing unit and those for Snap Shots. Routing along a Narrow Street is NA because a routing unit may not Bypass (A4.3).

10. *32. RAILROADS:* Railroads played a big role in the strategic aspects of WWII. Many battles were fought over or around them, and partisan activity often centered around disrupting the flow of men and supplies along them. Railroads were an important terrain feature throughout the world, especially in northwest Europe where they were readily encountered. While railroads often had a distinctive effect on tactical level combat, their presence just as frequently had no appreciable impact. Some of the battles already portrayed in ASL scenarios took place on or around railroads, but there was no indication that the existence of the railroad had any impact on the fighting. The major exception so far has been the Historical ASL module *RED BARRICADES*. The embanked railroads in the *Barrikady* played an important role in the early German attacks into the factories. By virtue of being on a historical mapsheet, the Railway Embankments and the accompanying rules in *RB* could limit themselves to a specific situation. The hexside nature of the Railway Embankments in *RB* fit that situation very well, but was too limiting for geomorphic boards.

© 2000 Multi-Man Publishing, LLC

11. *32.1 RAILROAD TYPES:* Railroads run through many different types of terrain, via many different methods. To reflect this diversity, railroads at several levels are described, using the existing rules for roads (including sunken roads and elevated roads) and hillocks as a basis. Even so, in order to keep these rules both playable and of manageable length, a good degree of abstraction takes place.

12. *32.13 SAME LEVEL LOS:* Railroads typically have a very gentle gradient, gentle enough not to affect line of sight along them. Nonetheless, they do change elevation, especially in relation to the other terrain around them. Treating LOS along a railroad as always being at the same level proved to be the best compromise of realism and playability.

13. *32.2 OTHER TERRAIN:* These rules are intended to be flexible enough to allow for railroads sharing a hex with terrain other than open ground, bridges, or roads. This flexibility comes at the price of some additional complexity. It is envisioned, however, that the vast majority of ASL railroads will pass through open ground, and only overlays of this type are being provided in *DOOMED BATTALIONS*. While further scenario design experience might uncover the need for railroad hexes combined with other terrain, rules sections 32.2-.211 and 32.31 will not come into play until such time.

14. *32.33 BOG:* While generally treated in the rules as an Elevated Road, an Elevated Railroad is usually narrower than an actual road, and harder to enter from "off-road." Thus, although entry of an Elevated Road across a non-road hexside does not require a Bog Check, entry of an Elevated Railroad across a non-Railroad hexside does.

15. *32.43 ELEVATED RR CROSSING:* Typically, the area around an Elevated Railroad Bridge is more built up, with much less room for maneuver, than a similar area involving a road that crosses a stream or gully on a bridge. A vehicle would have a much tougher time moving from up on an elevated railroad to under the bridge (and vice versa) than it would moving from on a road into the gully (or stream) under the bridge (and vice versa).

16. *32.44 SUNKEN RR CROSSING:* Vehicles are prohibited from entering a Sunken Railroad across a non-Railroad hexside, just as they are prohibited from entering a Sunken Lane across a non-road hexside.

17. *33.1 STREAM-HEX TERRAIN:* Although stream-brush and stream-orchard hexes remain confined so far to the *KGP* maps, we include them here with stream-woods hexes for ease of reference.

18. *34. TOWERS:* Tower rules are used to represent various highstanding structures such as water towers scattered throughout France and artillery spotting towers on Tarawa as well as other types of unenclosed towers and observation platforms. Clock towers and other substantial enclosed structures will be better represented by normal buildings (23.), perhaps in combination with Steeples (31.2). Towers can also be depicted, via an SSR, by on-map buildings. The definition of Towers in these rules was left somewhat open; they were given "plug in" characteristics with the intent that scenario designers adapt them to their own specific situations. Towers were originally included in *Pegasus Bridge* and also appear in our *Blood Reef: Tarawa* HASL module.

© 2000 Multi-Man Publishing, LLC

C. ORDNANCE & OFFBOARD ARTILLERY (OBA)

ORDER OF PRESENTATION:

1. Offboard Artillery (OBA)
2. Gun Classifications
3. The To Hit Process
4. Gun & Ammo Type Basic TH# Modifications
5. Firer-Based Hit Determination DRM
6. Target-Based Hit Determination DRM
7. To Kill Tables
8. Special Ammunition
9. Mortars
10. Gun & Ammo Movement
11. Guns as Targets
12. Recoilless Rifles (RCL)
13. Light Anti-Tank Weapons (LATW)

C.1 INDIRECT FIRE: Despite the fact that many Gun types were capable of Indirect Fire (indeed, most artillery and mortars were used primarily as Indirect Fire weapons), all ordnance weapons that appear on the mapboard are limited to Direct Fire *To Hit* procedures (or use IFE if capable). All *ASL* references to Indirect Fire apply to both OBA and mortars, although onboard mortars must secure hits using the To Hit Table in the same manner as Direct Fire weapons. All ordnance on the mapboard is considered either too close or inadequately prepared to use normal Indirect Fire techniques (i.e., SR and FFE process).

C.2 ORDNANCE: Any weapon that must secure a hit on a To Hit Table before resolving the effect of that hit on either the IFT or To Kill Table is termed ordnance. The same weapon may or may not be considered ordnance depending on its use; a Gun with an IFE capability (2.29) is not considered ordnance while using IFE because it does not make a To Hit DR.

C.3 TO HIT/EFFECTS DRM: No TEM, Hindrance or other DRM ever affects both the To Hit DR and the resulting Effects DR; it affects only one or the other *[EXC: CH: 3.71]*.

C.4 ORDNANCE AREA FIRE: Ordnance Area Fire never halves the FP effect of any hit. Instead, any shot affected by any provision of Area Fire caused by the *target's* status uses the Case K To Hit DRM (6.2). Fire during the AFPh is represented by use of To Hit Cases B/C as applicable. An AFPh attack vs a concealed (Area) target uses To Hit DRM B/C as applicable, plus Case K. If the firer's status would impose Area Fire (e.g., Pinned, LATW firing from shallow stream, etc.), Case D applies (5.4). See also 3.53.

C.5 VERTEX AIMING POINT: Any fire traced to a vertex (including a Snap Shot, which must be traced to an entire hexside; A8.15) rather than to a hex center dot, is subject to the following:

C.5A RANGE: Range is always measured from the firing hex to the hex containing the target (C.5C); just because a vertex is also part of a closer hex does not allow the firer to reduce the range to that other closer hex.

C.5B FIRE WITHIN CA: A firer that must fire within a given CA must have the *hex containing the target* completely within its CA—merely having the vertex (or hexside) aiming point forming a part of the boundary of its CA is insufficient.

C.5C *The hex containing the target* by definition must include the building/woods obstacle being bypassed, or the hex the target would remain in if affected by that fire (e.g., Snapshot [A8.15], Rowhouse "Bypass" [B23.71], Underbelly Hit [D4.3]) or the lower side of a cliff hexside being Climbed (B11.42).

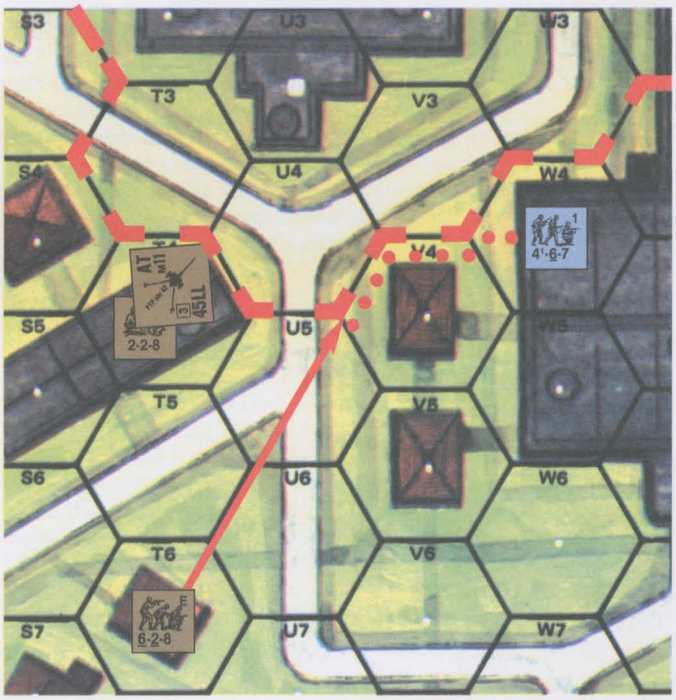
C.6 HE USE ON IFT: Each column of the IFT contains a Minimum Gun Caliber Size listing next to that column's FP. A Gun (or OBA) firing HE uses the highest FP column whose Caliber Size listing is ≤ the firing Gun/OBA's Caliber Size; e.g., a 100 or 105mm Gun (or "100+mm" OBA HE Concentration; 1.7) uses the 20 FP column, but a 90mm Gun (or "80+mm" OBA HE Concentration) uses the 16 FP column.

C.7 HEAVY PAYLOAD: An OBA or bomb hit of ≥ 250mm is resolved on the 36 FP column with a -1 bonus DRM for each multiple of 50mm in excess of 200mm (FRD). (Any such attack halved for any reason is resolved on the 16 FP column with half of any bonus size DRM [FRD].) In addition, any CH that generates FP in excess of 36 FP is resolved on the 36+ column of the IFT with a -1 bonus DRM for each whole multiple of eight FP in excess of 36. A FG may never use Heavy Payload rules.

EX: Any 120mm Gun HE CH vs Infantry is resolved on the 36 column of the IFT with a -1 bonus DRM (24 FP × 2 [CH] = 48 - 36 = 12 ÷ 8 = $1\frac{1}{2}$). A 150mm OBA CH is resolved on the 36 column using its Original 2 DR and a -3 bonus DRM (30 FP × 2 [CH] = 60; 60 - 36 = 24; 24 ÷ 8 = 3). A 250mm bomb CH is resolved on the 36 column with a -5 bonus DRM (-1 [250mm] + -4 [36 FP × 2 {CH} = 72; 72 - 36 = 36; 36 ÷ 8 = $4\frac{1}{2}$] = 5).

C.8 MOVING VEHICULAR TARGET: A vehicle is considered a moving target for To Hit/Effects purposes only if during the current Player Turn it has entered a new hex, or used VBM (D2.3), or began its MPh in Motion (D2.4), or is currently in Motion. A *Stopped* (D2.13) vehicle is also treated as moving if during the current Player Turn it has entered a new hex, used VBM, or began its MPh in Motion. Thus a *Non-Stopped* vehicle is a moving, Mobile (D.7) vehicle that has not expended a Stop MP (D2.13) since its last Start MP (D2.12) expenditure. Expenditure of MP for other purposes (such as loading/unloading, Bog Removal attempts, or VCA changes) do not by themselves qualify a vehicle as a moving target although they too allow Defensive First Fire shots vs it.

C.9 UNDECLARED ORDNANCE TARGET TYPE: Any time ordnance capable of fire on more than one Target Type of the C3 To Hit Table makes a To Hit DR without first specifying the Target Type being used, the Target Type used for that To Hit DR is the topmost one listed on the To Hit Table that can legally be used vs a target in that hex by that firer (i.e., Vehicle, Infantry or Area in that order).



EX: The 4-6-7 in 1W4 is using Bypass in V4 along the V4-V3 and V4-U4 hexsides when it is fired on by the 6-2-8 in T6. The LOS is traced to the V4-U4-U5 vertex. The range is three even though the vertex is also a part of hex U5, which is only two hexes away. The Gun in T4 with CA T3-U4 must change its CA to fire on the 4-6-7, because although the V4-U4-U5 vertex is on a hexside defining the Gun's present CA, the target hex (V4) is not inside that CA.

© 2000 Multi-Man Publishing, LLC

1. OFFBOARD ARTILLERY (OBA)

1.1 OBA represents a battery of Guns outside the area represented by the mapboard, using radio-directed Indirect Fire to fire HE or SMOKE (or IR; E1.93) onto designated areas of the mapboard. OBA availability is usually symbolized by the presence of a radio counter in the scenario OB and is further defined by SSR or DYO purchase as to type. Each radio in the OB represents one predesignated available OBA battery (aka module). Each battery may produce a variable number of Fire Missions, but only via the one radio representing it in the scenario. If that radio is lost, so is the opportunity to contact that battery; another radio may not be used to call in the remaining Fire Missions of that battery.



1.2 RADIO CONTACT ATTEMPT: OBA may be called-for/placed/Corrected/Converted/voluntarily-Cancelled only if the friendly player currently has Radio Contact and Battery Access. Only an Observer (i.e., a Good Order leader possessing a functioning radio/field-phone counter [1.6], or an OP tank [H1.46], or an Offboard Observer [1.63; E7.6]) may attempt Radio Contact *[EXC: not if he is a Rider, or a Guard whose US# is < that of his prisoners]*, and may do so only at the start of the PFPh/DFPh[1] (as given in the Advanced Sequence of Play) as his sole action for that phase aside from other allowed OBA activities. Radio Contact is established with a DR ≤ the Radio Contact value printed on the radio counter (Δ). If the Radio Contact DR is failed, neither the radio nor the Observer may attempt Radio Contact again until the start of his next PFPh/DFPh (whichever comes first; see also 1.61). The Contact value may vary with nationality and, in some cases, time frame of the scenario. If a radio counter has a multiple Contact value, the dates for their use are listed on the reverse side.

EX: The Russian Contact value of 6/7/8 indicates a Radio Contact value of 6 through June '42, 7 from July '42 through June '43, and 8 thereafter.



1.21 BATTERY ACCESS: Having established or maintained Radio Contact, the player *must* then immediately attempt to gain Battery Access if that battery currently has no SR/FFE counter onboard or does have a FFE:C counter onboard. In addition, whenever placing an AR counter onboard in order to place (1.3) or Correct (1.4) a SR/FFE, and whenever Converting *any* SR/FFE:C to a FFE:1 (1.332-.333; 1.342), Battery Access must be attempted a second (i.e., an *extra*) time if ≥ one non-hidden enemy ground unit is in/adjacent-to the AR (or, when Converting, to the SR/FFE:C) counter's hex but none of those units are Known to the Observer (see also 1.6). Battery Access is gained only by randomly drawing a *black* card/chit from that battery's Draw Pile (1.211) and revealing it to the opponent. Once gained, Battery Access is retained until the end of a RPh in which that battery has a FFE:C counter onboard or until a FFE of that battery is Cancelled (whichever comes first). Failure to gain Battery Access (i.e., drawing a red card/chit at any time) does not break Radio Contact, but does cause all currently onboard AR/SR/FFE counters of that battery to be removed, Cancels its current Fire Mission (if any), and ends that Observer's and battery's OBA actions for that phase. In addition, the second permanently-removed (i.e., non-*extra*) red card/chit drawn for a battery causes the loss of its Battery Access for the duration of the scenario. The current Radio-Contact and Battery-Access status of each radio is marked on the Scenario Aid Card by flipping the Battery Contact counter to the appropriate side and placing it in either the "Battery Access" box (if Access has been gained) or the "Contact" box (if it has not).

1.211 DRAW PILE: Each battery's Draw Pile is assembled prior to setup, and comprises a number of black and red chits or playing cards (hereafter referred to collectively as chits) as listed in the form "#B/#R" in that nationality's "OBA ACCESS" column of the A25 National Capabilities Chart on the Chapter A divider. (OBA chits are the reverse side of certain DM counters.) Each Draw Pile can be increased at this time by one or more of the following, as applicable: one extra black chit if the battery has been assigned ≥ one Pre-Registered hex (1.73); one extra black chit if it is specified as having Plentiful Ammunition; one extra red chit if it has Scarce Ammunition. The Draw Pile is then "shuffled" and set aside for use during play. Whenever Battery Access is lost or a new chit draw is made, the previously drawn chit is removed permanently from the Draw Pile *[EXC: each extra chit drawn as per 1.21 is mixed back into the Pile immediately after being revealed]*.

1.22 MAINTAINING RADIO CONTACT: To maintain Radio Contact from a preceding turn, the player must roll ≤ the Radio Contact value again in his next PFPh or DFPh (whichever comes first), but may deduct one from the DR *[EXC: the Maintenance DRM is -2 if the battery is 70+mm/80+mm battalion mortar OBA[2]]*. The Maintenance DR is the Observer's sole allowed action for that fire phase (other than further allowed radio activities). A radio is a 1PP SW. A leader must possess a radio to use it.[3] A radio breaks down on any Original Contact or Maintenance DR of 12 (or as listed on the radio counter) and is subject to normal SW Repair (A9.72). The involuntary loss of Contact does not automatically cause loss of Battery Access, but failure to regain Contact in the next friendly PFPh/DFPh (whichever comes first) will prevent the Conversion, Correction, and voluntary Cancellation of that battery's onboard SR/FFE counter; the FFE would continue to be resolved as per 1.5-.51, and, if still existing at the end of the RPh in which it is a FFE:C, would at that time be Cancelled (1.34); a SR would remain in place. Voluntary loss of Contact (i.e., failure to roll for Contact/Maintenance or voluntary rout; 1.6) causes the immediate loss of Access and Cancellation of the Fire Mission (if any). However, failing to roll for Contact/Maintenance is considered voluntary loss of Contact only if the Observer has no LOS to the SR's/FFE's Blast Height; 1.32). See also 1.61.



1.23 FIELD PHONES: A Field Phone is equal to a radio in all respects, except that: Contact and Maintenance DR are passed by a DR of ≤ 11; unlike a radio, a Field Phone cannot be moved or repaired; a Field Phone can be eliminated by the presence of enemy troops or an HE FFE resolved within its Security Area. A Security Area is a prerecorded line of hexes with either the same vertical row letter or horizontal grid number from the Field Phone (inclusive) to its Friendly Board Edge. Anytime a FFE is resolved within that area resulting in an Original KIA DR, or the opposing player rolls an Original 2 DR for *any* purpose for one (or more) of his units in the Security Area, the line is considered cut and the Field Phone is removed. A Field Phone and its Observer may always set up using HIP (if otherwise able to).

EX: If a Field Phone is in hex 4E5 and its Friendly Board Edge is along the side whose hexes are numbered 10, its Security Area is Hex Grain E5-E10. If its Friendly Board Edge is along the side whose hexes are numbered 1, its Security Area is Hex Grain E5-E1. If its Friendly Board Edge is along the A hex row, its Security Area is E5-D5-C5-B5-A5.



1.3 ARTILLERY REQUEST (AR): Having established (or maintained) Radio Contact during that phase, and if he has Battery Access, the player may continue his radio action in that phase by placing an AR counter on any hex containing a Location that is in his Observer's LOS which he wishes to be the target of an OBA attack. LOS is then checked from the Observer to the AR's hex; if no such LOS exists to any non-Aerial Location therein, that AR is removed, that Observer's OBA actions are considered finished for the current phase, and at the opponent's option that current Fire Mission is Cancelled. If at this point the AR is not removed (as per either the preceding sentence or a 1.21 *extra* red chit draw), the player then makes an Accuracy dr to determine if his SR will land Accurately (i.e., in the AR's hex). For British (including Free French), German, and U.S. OBA *[EXC: Offboard Observer (1.63; E7.61)]* and Shore Fire-Control Party (G14.64), a Final Accuracy dr of ≤ 2 (see below and 1.62 for cumulative drm) results in the SR landing on target and the AR counter being exchanged for a red Spotting Round (SR) counter. All other nationalities must make a Final Accuracy dr of ≤ 1 to result in the SR landing on target. An Accuracy dr made for a Corrected SR that is predesignated to be Converted to a FFE (1.332) receives a + 1 drm if that SR was Corrected 7-12 hexes, or a +2 drm if it was Corrected 13-18 hexes. A SR has no detrimental effect on any unit or terrain.

© 2000 Multi-Man Publishing, LLC

1.31 DIRECTION/EXTENT OF ERROR: Make a DR if the SR does not land on target on the AR. The colored dr indicates (using the hexagonal grid reference on the AR counter) the hexside direction from the AR that the SR has landed. The white dr (modified as per 1.4/1.732 as applicable) determines the Extent of Error and is the number of hexes away from the AR counter along that Hex Grain in the errant direction that the SR lands. Mark this hex with the battery's red SR counter and remove the AR counter.

1.32 BLAST HEIGHT/AREA: For Observer-LOS purposes, the Blast Height (visible effect) of a SR rises from the Base Level of its hex through the next two higher levels *[EXC: a SR that lands offboard has no Blast Height];* see the first 1.62 EX. The Blast Height of a FFE is the same *[EXC: that of a WP FFE rises through the next four higher levels],* but exists in each hex of its Blast Area. The Blast Area of a HE/SMOKE Concentration FFE comprises the hex containing the FFE counter and all hexes adjacent to it *[EXC: each such hex that is offboard is not a part of the Blast Area, regardless of the type of Fire Mission (1.7); for a SMOKE FFE see also 1.71].* See 1.72 for the Blast Area of Harassing Fire, and E12.11 for that of a Barrage.

1.321 OFFBOARD SR/FFE: If a SR lands offboard, use an extra board butted against the playing area to mark that SR's position (to indicate its distance to/from the AR counter). As long as the SR remains on this board it is considered out of the Observer's LOS (since it has no Blast Height; 1.32). Use the same procedure if a FFE counter lands offboard; however, only its Blast Area (i.e., the onboard portion, if any, of that FFE) is resolved and Observed in the normal manner—the offboard portion is *never* resolved *[EXC: Drifting SMOKE; 1.71],* nor is it ever in the Observer's LOS (1.32).

1.322 END OF ACTIONS: Placing a SR (1.3-.31), or Correcting one without predesignating its Conversion to a FFE (1.332), ends both that Observer's and that battery's OBA actions for that phase.

1.33 SR & FFE:1/2 OPTIONS: At the start of each friendly PFPh/DFPh in which an Observer has gained/maintained Radio Contact and Battery Access, and has that battery's SR or FFE:1/2 onboard from his previous PFPh/DFPh (whichever came last), he *must* then attempt to perform one of the following, as applicable, for that battery (no other options [e.g., replacing a FFE:1/2 with a SR] are possible):

1.331 If he currently has a LOS to the SR's or FFE's Blast Height, he may leave that SR in place or Correct (1.4) that SR or FFE; or,

1.332 If he currently has a LOS to the SR's Blast Height, he may predesignate aloud that he will Correct that SR and then Convert it to a FFE:1; he then does so, and must Convert the now-Corrected SR *[EXC: if the requirements of 1.333 are not met at this time];* or,

1.333 If he currently has a LOS to the Base Level of the SR's hex, or to its Blast Height *and* any non-Aerial Location in/adjacent-to the SR's hex that contains a Known (to him) enemy unit, he may Convert that SR to a FFE:1 and leave it in that hex for resolution; or,

1.334 Disregarding SMOKE, if he currently has a LOS to the Base Level of the FFE counter's hex, or to the FFE's Blast Height *and* any non-Aerial Location in/adjacent-to the FFE counter's hex that does/did contain a Known (to him) enemy unit during this FFE's current Fire Mission, he may leave that FFE in its present hex for resolution; or,

1.335 Disregarding SMOKE, if he currently has *no* LOS to the SR's or FFE's Blast Height nor to any non-Aerial Location in/adjacent-to the SR's hex that contains a Known (to him) enemy unit, he *must* Correct (1.4) or Cancel (as per 1.336-.337) that SR or FFE; or,

1.336 He may voluntarily Cancel the SR, and may also attempt to place an AR (followed by a new SR) as per 1.3-.31 (including situations when, disregarding SMOKE, he has no LOS to the SR but can see a Known (to him) enemy unit in a non-Aerial Location in/adjacent-to the SR hex); or,

1.337 He may voluntarily Cancel the FFE. See also 1.35.



1.34 FFE:C: A FFE:C (Continuation) counter is never Corrected, and is resolved only vs each unit that enters or becomes more vulnerable in a hex of its Blast Area (1.51). Its main purpose is to mark the position of the previous FFE:2 counter so that its Observer, after regaining Battery Access in the next PFPh/DFPh (whichever comes first), may place his next SR or FFE:1 counter in that same hex. At the start of each friendly PFPh/DFPh in which an Observer has gained/maintained Radio Contact and has that battery's FFE:C onboard, he *must* attempt to gain Battery Access as per 1.21. Regardless of the outcome, that previous Fire Mission is now Cancelled—but if he gains Access *and* had a LOS to the FFE's Blast Height during the current phase prior to achieving Access, he must now attempt to perform one of the following for that battery (no other options are possible):

1.341 He may replace the FFE:C counter with a SR, which he may also Correct (1.4) or leave in its present hex; or,

1.342 If he currently has a LOS to the Base Level of the FFE:C's hex, or to its Blast Height *and* any non-Aerial Location in/adjacent-to its hex that contains a Known (to him) enemy unit, he may Convert that FFE:C to a FFE:1 and leave it in that hex for resolution; or,

1.343 Even if he had no such LOS (1.34), he must remove the FFE:C counter, but may also attempt to place an AR (followed by a SR) as per 1.3-.31.

1.35 CANCELLED SR/FFE: *Any* Cancellation of a FFE immediately ends that Fire Mission and causes the removal of that FFE counter from onboard. In addition, Cancelling a FFE:1/2 necessitates regaining Battery Access at the start of a *subsequent* friendly PFPh/DFPh before a new AR can be placed for that battery. Cancelling a SR does not end a Fire Mission, but causes the removal of that SR counter.

1.4 CORRECTING OBA: An Observer may Correct an existing SR up to 18, or an existing FFE counter up to 3, hexes from its current position by attempting (as per 1.3) to place an AR and make an Accuracy dr *[EXC: the AR may not be placed in the SR/FFE counter's present hex; Accuracy is not possible if the SR/FFE must be Corrected (1.335)].* If the Correction is not Accurate, the Direction and Extent of Error must be determined before moving the SR/FFE counter. Direction of Error is determined as per 1.31. The Extent of Error is determined as per 1.31 *[EXC: unless the SR/FFE must be Corrected (1.335), the Extent of Error is limited to a maximum of one hex for each multiple of three hexes (FRU) from the SR/FFE counter to the AR counter (inclusive of the latter only)].* See also 1.62.

EX: A SR is being voluntarily Corrected four hexes to an AR, but the Observer's LOS to the AR is Hindered by Dispersed smoke. There is no Accuracy dr because the +2 drm of the Dispersed smoke makes Accuracy impossible (1.62; A24.4). Even so, the maximum Extent of Error will be two hexes: an Extent-of-Error dr of 1 will land the SR adjacent to the AR, while a dr of 2-6 will cause a two-hex error.





1.5 FFE RESOLUTION: A new Fire Mission always begins with the FFE:1 side of the counter face-up. After resolution in that PFPh or DFPh it is replaced with that battery's FFE:2 counter, and after resolution in the next friendly PFPh/DFPh (whichever comes first) that FFE:2 is flipped to its FFE:C side *[EXC: if Cancelled in the interim; 1.35].* Once placed, a FFE:1/2 must be resolved at the start of that fire phase (as per the Advanced Sequence of Play). See 1.22 if Radio Contact is lost during the course of a Fire Mission. (See also 1.61.) Each FFE:1 and FFE:2 attacking in the PFPh/DFPh is resolved on the IFT vs all (including friendly; see 1.54) units *[EXC: Aerial units, those in sewers/tunnels, non-Vulnerable PRC, and certain Climbing units (B11.42)]* in each hex of its Blast Area, using a separate DR vs each *hex* and the FP that corresponds to the battery's Caliber Size (C.6) *[EXC: Harassing Fire (1.72) and Barrage (E12.5) use modified FP; see 1.71 for a SMOKE FFE].* A hex devoid of units is still attacked if there is a possibility of Fire/rubble/shellhole creation, minefield/Fortification/weapon elimination, and/or effects vs HIP units or Field Phone security area (1.23).

1.51 ENTERING A FFE: A HE/WP FFE:1/2/C also attacks each unit/stack that *enters* a hex of the Blast Area during the MPh/RtPh/APh/CCPh

© 2000 Multi-Man Publishing, LLC

[EXC: not if the unit/stack is immune to OBA therein (1.5)]. It also attacks each unit/stack that is changing position (or becoming vulnerable) *within* a Blast Area hex *if* the unit/stack is becoming more vulnerable to the FFE than it was in its immediately-previous position (e.g., a unit exiting a sewer or foxhole, claiming Wall Advantage while in a building Location, or moving to a higher building level). Such attacks are resolved using the FP determined in 1.5 (or cause WP NMC; see 1.71), but differ from PFPh/DFPh resolution in the following ways: a new resolution DR is made *each time* the unit/stack enters-a-new-hex/becomes-more-vulnerable-in-one; FFMO/FFNAM can apply during the MPh (only); and no terrain, Fortifications or other units in the hex can be affected. A moving unit/stack can undergo a FFE attack in its MPh and again (along with the hex's other contents) in the DFPh. A FFE does not cause Interdiction.

1.52 TEM: Indirect Fire IFT resolution is subject to TEM *[EXC: Height Advantage (B10.31), Crest (B20.92), Deir (F4.5), Hillock (F6.5), and Dune Crest (F7.513) TEM]* in the normal manner (see B9.31 and B9.34 for wall/hedge/bocage). Indirect Fire cannot reduce Half-Level-Obstacle hexside TEM to < zero. Hindrances/SMOKE never affect FFE IFT resolution. See also B13.3 (Air Bursts), B23.32 (higher building levels), and 11.5 (Gunshields).

1.53 CH: A HE/WP FFE Original resolution DR of 2 yields a CH. See 3.7-.75 for HE, and 3.76 for WP.

1.54 FRIENDLY UNITS: Each non-heroic, non-berserk unit *[EXC: an Observer within that Blast Area due to his Accurate placement/Correction of that FFE; units in Locations immune to OBA (1.5)]* has its Morale Level, or that of its Inherent Personnel, lowered by one while within the Blast Area of a *friendly* HE/WP FFE or Bombardment.[4]

1.55 vs VEHICLE: The ★ Vehicle line of the IFT (A7.308) is used for an unarmored vehicle attacked by a HE FFE (or hit by HE using the Area Target Type; 3.33). However, such attacks vs an AFV are resolved in a different manner on the IFT: A Final KIA result destroys the AFV but allows normal Survival (D5.6; D6.9) possibilities *[EXC: a Final DR ≤ half of the Final DR that corresponds to a K/# result on that IFT column results in a Burning Wreck (B25.14) and the elimination of its PRC (D5.6); no more vehicle counters can be affected than the highest KIA# of that IFT column (as given in A7.308)]*; a Final DR that is a K/# or one > a K/# creates either an *automatic* (not a "possible") Shock for a turret hit, or Immobilization for a hull hit; a MC or PTC result has no effect vs the AFV, but can affect its Vulnerable PRC Collaterally. An AFV's vulnerability is not increased by its being Partially Armored (D1.22). Use the OBA's original IFT DR vs an AFV to determine the hit location (3.9) of that OBA attack. TEM applies to the IFT DR as per 1.52/3.331 as applicable (for an AFV hit by Air Bursts, see also D5.311). HD status (D4.2), HA (D4.22) and AF (D1.6) never apply to Indirect Fire. A FFE/Area-Target-Type HE attack is resolved vs an AFV using ≥ one of the following DRM if applicable (these DRM do not apply Collaterally vs its PRC):

All AF ≤ 4	-1
OT	-1
All AF ≥ 8	+1

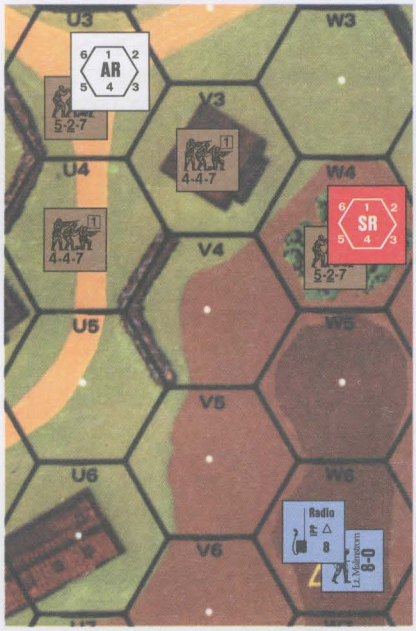
1.56 vs CONCEALED UNITS: The resolution of a FFE is not halved vs a concealed unit(s).

1.57 FFE LOS HINDRANCE: A *HE Concentration* (1.7) FFE of ≥ 70mm is considered a two level +1 LOS Hindrance to any LOS traced into, through, within, or from its Blast Area hex(es). This Hindrance DRM never exceeds +1 per FFE, regardless of the number of HE Blast hexes of that concentration it is traced through. For Barrage, see E12.52 and E12.75. See also F11.75.

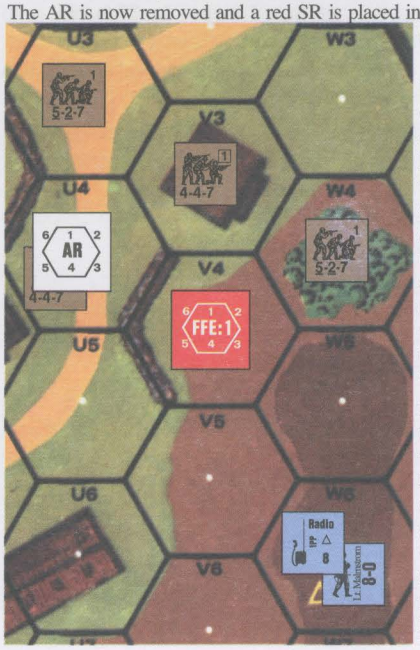
1.6 OBSERVER: An Observer must have a LOS to the AR counter to call in OBA, so an Observer in an AFV *[EXC: OP tank; H1.46-.465]* must be CE to spot. Concealed units in non-Concealment Terrain and in the LOS of a Good Order Observer are always considered Known to that Observer *[EXC: at night; vs Winter-Camouflaged unit]*, but only for his OBA actions. Such units would always be considered concealed for all other purposes. An Observer cannot be used in any other capacity to gain the benefit of "seeing through concealment". An Observer can operate only one radio per phase and therefore may not maintain Radio Contact with more than one battery at a time. An Observer who uses a radio (including any unsuccessful attempt to make or maintain Contact) may attempt no actions other than OBA direction during that PFPh (and may not move in the following MPh) or DFPh *and* if not hidden/concealed is marked with a Prep or Final Fire counter, but does not lose any "?" he may have.[5] A leader Observer who has Radio Contact loses it voluntarily (1.22) when he accompanies a routing unit as per A10.711.

1.61 An Observer not in Good Order immediately loses Radio Contact. A different Observer or one restored to Good Order may use the radio again but must re-establish Radio Contact.

1.62 VISION EFFECTS: When placing/Correcting a SR/FFE, all Hindrances along the Observer's LOS between his hex and that of the AR, as well as any SMOKE in his hex, are treated as cumulative drm to the Accuracy dr if they Hinder his LOS to *all* non-Aerial Locations of the AR's hex that are in his LOS *[EXC: if the AR is in a Pre-Registered hex; 1.732]*.



EX: A German Observer for a 70+mm OBA battery is in 3W6, and Russian squads are in U3, U4, V3, and W4. In his Turn 2 PFPh the German makes a DR of ≤ 8 to establish Radio Contact (1.2). He then draws a chit (1.21), which is black, thereby gaining Battery Access. Next he places an AR counter in U3 (1.3), which is in his LOS. No *extra* chit draw is required since he can see ≥ one non-hidden Known enemy ground unit in/adjacent-to the AR. He then makes an Accuracy dr of > 2 resulting in an inaccurate SR, so he makes a DR to determine Direction and Extent of Error (1.31). This DR is a 5 (3 on the colored dr), indicating that the SR lands in W4, which is not in his LOS. However, he can still see the SR there because its Blast Height is two levels higher than the Base Level of that hex. (Thus even had the SR landed in W3 he still could have seen it.) The AR is now removed and a red SR is placed in W4, thus ending his OBA actions for this phase.



If the Russians in U3 and U4 were *both* under "?" and in Concealment Terrain, or were absent altogether, in order to leave the AR in U3 and attempt to place a SR on it the German would also have to draw an *extra* black chit (since there would be ≥ one non-hidden enemy ground unit in/adjacent-to the AR's hex, but none of them would be Known to the Observer; 1.21, even if U3 were a Pre-Registered hex).

In the Turn 2 German DFPh, the German maintains Contact with a Final DR of ≤ 9. Now he would like to Convert his SR in W4 to a FFE and resolve it in that hex (1.333) where it would affect the Russians in V3 and W4. He cannot, however, because those Russians are not Known to

© 2000 Multi-Man Publishing, LLC

him nor does he have a LOS to the Base Level of W4. Thus, his only options are to Cancel (1.336) or Correct (1.331-.332) the SR or leave it in place. By Correcting it ≤ three hexes he is guaranteed to place it no farther than one hex off-target (1.4), so he decides to Correct it and Fire For Effect (1.332) with a HE Concentration. He declares this intention and places an AR in U4 (again requiring no *extra* chit draw) which is in his LOS. His Accuracy dr is > 2, and the Direction of Error roll is a 3, which moves the SR to V4 (and the AR is removed). Now, since he meets the requirements of 1.333, he must Convert it to a FFE:1—but first he must check again to see if an *extra* chit draw is necessary as per 1.21. It is not, thanks to the Known (to him) Russian in U4, so he exchanges the SR for a FFE:1 counter which will now attack the Russians in U4, V3, and W4 (despite the latter two being out of his LOS) with 12 FP. He makes a separate IFT DR for each target hex, with a +2 TEM for V3, a -1 TEM for W4, and a +1 TEM for U4 (U4-V4 wall; B9.34).

If the Russian in U4 were under a "?" *and* in Concealment Terrain, or were absent altogether, the German *would* have to draw an *extra* black chit before he could convert the SR.

1.63 OFFBOARD OBSERVER: A SSR may give a player an OBA module that uses an Offboard Observer. The SSR will specify a particular on-board hex and level (even though the listed hex may have no such level), and all OBA LOS checks are taken from this point as if the Observer were located there. Since there is no Observer actually in the designated Observer hex, any fire or movement into/through that hex has no effect on the OBA *[EXC: Hindrances affect the Observer's LOS (and hence, Accuracy dr) from that hex level normally]*. Even though no radio is provided for the OBA module, all OBA procedures are conducted normally except that Radio Contact and Maintenance are automatic. The Final Accuracy dr required for OBA using an Offboard Observer is always ≤ 1 *[EXC: Pre-Registered Fire; 1.73]*.

1.7 FIRE MISSIONS: A Fire Mission consists of the entire time between Battery Access chit draws in which a FFE is on board. There are seven types of Fire Missions. The first is the HE Concentration and the second the SMOKE Concentration (1.71), the Blast Area for both of which is defined in 1.32. The other types are Harassing Fire (1.72), IR (E1.93), Barrage (E12.1), SMOKE Barrage (E12.51) and Creeping Barrage (E12.7). A Fire Mission cannot be of more than one type; e.g., if a battery uses a HE Concentration in its FFE:1 stage, it cannot switch to Harassing Fire or SMOKE, etc., in its FFE:2 stage. Whenever a FFE:1 appears onboard, or when an SR is predesignated for conversion to a FFE (although if it does not actually Convert it may be re-designated later), the type of Fire Mission to be used (including whether Smoke or WP) must be announced immediately by its owner (before making any required Accuracy dr for it).

1.71 SMOKE: A SMOKE FFE is treated like an equivalent HE FFE except that it does not attack with HE, and in the PFPh and DFPh it places a SMOKE counter in each Blast Area hex. Normal SMOKE rules (3.76; 8.5-.6; A24.2-.8) apply *[EXC: during the PFPh and DFPh, a WP FFE subjects all vulnerable units/PRC in every Blast Area hex—not just those in Locations where WP counters are placed—to an A24.31 NMC]*. OBA SMOKE may not be placed in Mud, Deep Snow, Marsh, or a Water Obstacle *[EXC: on a bridge]* or during rain/heavy-wind, and is removed immediately when rain/gusts/heavy-wind occurs *[EXC: gusts only remove Dispersed SMOKE; flip other SMOKE counters]*. FFE SMOKE that lands offboard has no effect *[EXC: it can Drift onboard in the normal manner]*.



1.72 HARASSING FIRE: Whenever a FFE:1 that could be declared a HE Concentration appears onboard, its owner may announce it as Harassing Fire instead. The Blast Area of Harassing Fire comprises all onboard hexes within *two* hexes of the FFE counter, and its per-hex FP within that 19-hex Blast Area is 1/3 of that battery's HE Concentration FP; however, it cannot place SMOKE. Harassing Fire is indicated by using a *blue* FFE counter.

1.73 PRE-REGISTERED FIRE: Pre-Registered Fire may be used only if allowed by SSR or DYO-purchase (H1.53), and only if that battery's Observer starts the game onboard or is an Offboard Observer (1.63; E7.6). Prior to the start of the opponent's setup, that Observer's owner may secretly record ≥ one (as determined by SSR or DYO-purchase) target hex as that battery's Pre-Registered hex(es). A battery with Pre-Registered Fire capability also receives an extra black chit in its Battery Access Draw Pile (1.211). If that Observer has both Battery Access and a LOS to any non-Aerial Location in a Pre-Registered hex of that battery, the following rules apply (Pre-Registered Fire has no additional effect):

1.731 After successfully placing the AR on that Pre-Registered hex, the player may dispense with the SR and instead immediately place a FFE:1 on that AR. He then rolls for Accuracy, etc. as per 1.732.

1.732 While the AR is in that Pre-Registered hex (even if the SR is not being dispensed with), Accuracy (1.3) occurs if the Original dr is ≤ 4; if not Accurate, the Extent of Error dr is halved (FRU).

1.733 Pre-Registered Fire may be used with any type of Fire Mission *[EXC: only as per E12.71 for Creeping Barrage]*, but is always limited to the specific Observer and battery (not radio or field phone) that start the scenario with such capabilities.

1.8 BOMBARDMENT: The following rules, which may be invoked only via SSR or DYO-purchase, simulate the artillery softening-up process conducted prior to a set-piece attack.

1.81 AREA: Bombardment begins after setup (inclusive of units set up offboard) but prior to the start of play. Bombardment potentially affects all the hexes of an entire mapboard (hexrows A-GG) or two adjacent halfboards (hexrows A-Q/Q-GG) at the firer's option, including all friendly units present in that designated area. The firer makes six dr, modifying the last three dr by +6. Each of these Final dr represents a numerical grid coordinate of the Bombardment area which is *immune* to its effects. Should any of these Final dr result in the same number or exceed 10, the total area spared the effects of the Bombardment is correspondingly less. A Final dr of 10 also spares all hexes of the Bombardment area that have a coordinate of 0 (see A2.2). For *Deluxe ASL* see J2.5.

EX: The German player is entitled to a pre-game Bombardment and rolls 3, 1, 3, 4 (+6 = 10), 5 (+6 = 11), and 2 (+6 = 8). All hexes of the Bombardment area with a numerical coordinate of 0, 1, 3, 8, and 10 are spared the effects of Bombardment.

1.82 EFFECTS: All non-Aerial Personnel units and Vulnerable PRC not in the spared hexes must take a 2MC prior to the start of play (thus *passing* the 2MC has no effect on HIP/"?" status). However, the TEM of their Location is added to their MC DR as a negative DRM (e.g., -4: entrenchment; +1: woods [Air Bursts]; -3: entrenchment in woods; 0: Open Ground). The +1 DRM for each non-rooftop level of a building above it (B23.32) does not apply. A -2 DRM applies if in Marsh. Otherwise, *all* rules for, and consequences of, a MC apply in the normal manner *[EXC: each Personnel unit whose MC DR is Original Doubles < 12 suffers Casualty Reduction if it also fails that MC]*; A10.31 applies to an Original 12. Hidden/concealed Personnel that break or become pinned must be completely revealed regardless of enemy LOS (thus eliminating a Dummy stack). All Horses, Motorcycles, and Boats not in the spared hexes are eliminated; their Passengers/Riders must Bail Out (D6.24), and then must take the Bombardment 2MC. CH are not applicable during Bombardment.

1.821 EQUIPMENT: Vehicles (and SW/Guns, in some instances) not in the spared hexes must take a NMC *[EXC: Horses, Motorcycles, and Boats do not take MC; they are affected as per 1.82]*. Unarmored vehicles have a Morale Level of 6, Guns and SW have a Morale Level of 7, all OT AFV and those CT AFV with all AF ≤ 4 have a Morale Level of 8, and all other CT AFV have a Morale Level of 9. There is no Pin, or reversed TEM (1.82), effect. Each vehicle must take its MC before its occupants do. A possessed SW/Gun takes the NMC only if its possessor breaks/suffers-Casualty-Reduction; if unpossessed when attacked by the Bombardment, it must always take the NMC. Failing a MC by one immobilizes vehicles, and malfunctions SW and non-vehicular ordnance. Failing the MC by two eliminates it, and a destroyed vehicle's PRC must roll for Survival (D5.6/D6.9; those that survive are not attacked again by the Bombardment). A vehicle failing a MC by ≥ three results in a burning wreck.

© 2000 Multi-Man Publishing, LLC

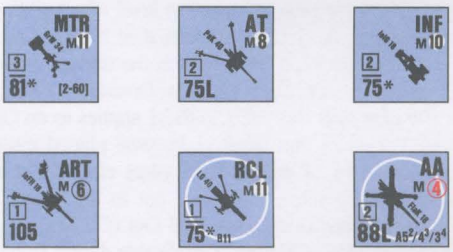
1.822 TERRAIN: Each building/bridge hex not in the spared hexes must take a NMC before any of its occupants do. Wooden buildings/bridges (and pontoon bridges) have a Morale Level of 8, and stone buildings/bridges have a Morale Level of 9. Completely Fortified building hexes *[EXC: Factory]* may increase their Morale Level by one. A "brown" pillbox has a Morale Level of 10; a "grey" pillbox has a Morale Level of 11. One level of the building (from top down) is turned to rubble for every multiple of one by which the MC is failed (a bridge would be treated as a Single Story House). All occupants of a rubbled level are eliminated (also check for Falling Rubble; B24.12). Wire and Roadblock counters, as well as all minefields, have a Morale Level of 9, and are eliminated if they fail their NMC; if hidden, they take their NMC and any eliminations are noted on the owner's side record (without telling his opponent what was eliminated or where such occurred). If a *unit* in a sangar is eliminated, so is that sangar (see the last sentence of F8.41).

1.823 FIRE/SHELLHOLES: Whenever any Bombardment MC DR is an Original 12, make a subsequent dr. If this dr is ≤ 4 a Shellhole counter is placed at the Base Level of that hex, provided such placement is otherwise legal; if the dr is ≥ 3 a Flame is placed in the same manner; if the dr is 3 or 4, place one of each. Bombardment may place no more than one of each type per hex.

1.9 ROCKET OBA: Rocket OBA is available only to certain nationalities (see the DYO OBA Battery Availability Charts) and only by SSR or DYO-purchase. No SR is placed nor is a FFE subject to Correction. Rocket OBA never receives more than one Fire Mission per battery. Rocketry is inaccurate and consequently never gets the benefit of an Accuracy dr; Error is automatic (although Extent of Error may be halved by Pre-Registered Fire). After gaining Battery Access, the firer merely places his AR (1.21 applies), rolls for Error, and places his FFE. Rocket OBA has the same Blast Area as Harassing Fire but is resolved with full FP. Rocket OBA cannot use Harassing Fire, Barrage, IR or SMOKE.

2. GUN CLASSIFICATIONS

2.1 GUNS/SW: Any ordnance-capable weapon depicted on a 5/8" counter is termed a Gun, while any on a 1/2" counter is a SW. Unlike SW *[EXC: U.S. RCL; 12.2]*, a Gun must be manned by a crew counter to fire without penalty (A21.13). The rules that follow are also applicable to vehicular-mounted Guns.



2.2 COUNTERS: Illustrated above are sample counters for the six non-vehicular Gun categories in *ASL*. The reverse of each counter illustrates either its malfunctioned side with applicable repair (R) and removal (X) numbers, or its Limbered status if applicable.

2.21 GUN CALIBER SIZE: This number is the weapon caliber (in mm) of the Gun—and of certain other ordnance types such as light mortars and some ATR. An overscored Caliber Size indicates that the weapon cannot fire AP ammunition. An underscored Caliber Size means it cannot fire HE ammunition. A Caliber Size that is neither underscored nor overscored means it can fire both AP and HE. In the absence of a declaration to the contrary, it is otherwise always assumed to be firing HE vs unarmored targets or AP vs armored targets, provided that ammunition type is available, is not Special Ammunition (i.e., has no Depletion #; 8.8), and is allowed on the applicable Target Type of the To Hit Table. An "*", "L", or "LL" suffix means that certain To Hit modifiers are used at various ranges, due to varying muzzle velocities or inherent accuracy, and also serve to change the To Kill capabilities of these Guns/SW as listed on the respective columns of their To Kill Tables *[EXC: If a Gun is firing while limbered (LF; 10.24) it uses the limbered Caliber Size for To Hit modifiers but uses the unlimbered Caliber Size for determination of its Basic To Kill Number]*.



EX: A limbered FlaK 30 must secure a hit without benefit of the "L" modifier, but, if it hits, uses the 20L column to resolve the effect of an AP hit.

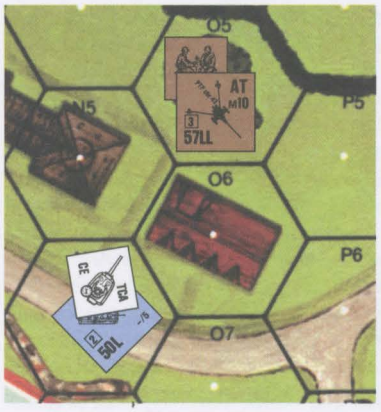
2.22 GUN TYPE: This abbreviation indicates the general type of Gun: MTR = Mortar, AT = Anti-Tank Gun, INF = Infantry Howitzer, ART = Artillery, RCL = Recoilless Rifle, AA = Anti-Aircraft. This type of description is based on the actual terminology of such weapons. However, troops in the field very often used their weapons in *ad hoc* roles, so these names should not be taken literally. A player is free to use any Gun as an anti-tank weapon or an AT Gun vs Infantry targets, etc.

2.23 FACING: The depicted gun barrel of a Gun must be pointing toward a hexspine to define its current CA; see 3.2.

2.24 RATE OF FIRE (ROF): A Gun normally fires once per Player Turn (aside from its possible use of Sustained or Intensive Fire; 2.29, 5.6-.64). However, a number encased in a square on the counter indicates a Multiple ROF equal to that number, thus conceivably allowing it (and certain ordnance SW such as light mortars and some ATR, as well as MG making TH DR) to fire many times during a Player Turn.[6] If the Original colored dr of its TH (or IFE IFT) DR is ≤ its ROF, that weapon may fire again during that Player Turn unless otherwise prohibited. However, during Defensive First Fire the number and rapidity of its shots are MF/MP dependent; see 6.17. Similarly, a vehicular weapon using Bounding First Fire (D3.3) must expend at least one MP between its shots—during which time Defensive First Firers can be shooting back. If the Original colored dr of the TH (or IFE IFT) DR is > the firing weapon's ROF, it is marked with an appropriate fire counter (Prep, First Fire, etc.) and may fire no more in that Player Turn *[EXC: Sustained/Intensive Fire if so allowed]*.

2.2401 GUN DUELS: Vs a non-concealed, non-Aerial DEFENDER's declared Defensive First Fire attack on it, a vehicle may attempt to Bounding First Fire (D3.3) its MA (/other-FP, including Passenger FP/SW) at that DEFENDER *first*, provided the vehicle need not change CA, is not conducting an OVR (D7.1), its total Gun Duel DRM (i.e., its total *Firer-Based* [5.] and Acquisition [6.5] TH DRM for its potential shot) is < that of the DEFENDER, and the DEFENDER's attack is not Reaction Fire (D7.2). Neither the +1 DRM for a Gyrostabilizer nor the doubling of the lower dr for other ordnance in TH Case C[4] (5.35) is included in the Gun Duel DRM calculation. The order of fire for non-ordnance/SW is determined as if it were ordnance *[EXC: TH Case A can apply to non-ordnance/SW only if mounted-on/aboard a vehicle that is changing CA; all such non-turret-mounted fire is considered NT for purposes of TH Case C, and A.5 applies to any type of FG]*. If the ATTACKER's and DEFENDER's total Gun Duel DRM are equal, the lower Final TH (or non-ordnance IFT) DR fires first—and voids the opponent's return shot by eliminating, breaking, stunning or shocking it. If those two Final DR are equal, both shots are resolved simultaneously. Any CA change the DEFENDER requires in order to shoot (5.11) is made *before* the ATTACKER's shot *if* the DEFENDER's total Gun Duel DRM is ≤ the ATTACKER's; otherwise its CA changes (if still able to) *after* the ATTACKER's shot. After the initial Gun Duel has been fully resolved, and *if otherwise able and allowed to*, that DEFENDER may announce another attack vs that ATTACKER who in turn may declare another Gun Duel; this time the printed ROF of one firing weapon on each side may be included as a negative DRM in that side's Gun Duel DRM calculation. Only the ATTACKER may declare a Gun Duel *[EXC: not if the DEFENDER has done so as per 5.33]*.

© 2000 Multi-Man Publishing, LLC



EX: A CE PSW 234/2 expends ½ MP to enter 23N6 (with its CA as illustrated), where it sees the Russian 57LL AT Gun in O5. The AT Gun's owner declares that it will fire at the Non-Stopped (C.8) PSW, whose owner in turn declares a Gun Duel vs the AT Gun with either its MA *or* CMG. Their respective Gun Duel DRM are totaled and compared. The PSW must use TH Case C[4] (+6) for a total Firer-Based TH DRM of +6. The AT Gun must use Case A for a +6 Firer-Based TH DRM (+3 [NT Gun] × 2 [firer in woods] = +6). No Acquisition applies. Both players now make their TH DR, which will also determine who fires first. Had the PSW expended a MP to Stop before firing, its TH chance (but not its Gun Duel DRM) would be better because it would not be subject to the doubling of the lower dr of the TH DR, but then it would have to concede the first shot to the AT Gun before it could Stop. If the AT Gun were concealed when it declared its attack, the PSW could not declare that Gun Duel vs it.

2.241 FIRST/FINAL FIRE: A Gun marked with a First Fire counter is limited to only one additional attack during that Player Turn *[EXC: OVR Prevention; 5.64]* if firing as ordnance, and that shot must be treated as Intensive Fire (5.6). Any Multiple ROF Gun which is not marked with a First Fire (even though it may have fired during First Fire), Intensive Fire, or No Fire counter is still entitled to multiple ordnance attack possibilities during Final Fire. If the Gun can use IFE, see 2.29.

2.25 RANGE LIMIT: Most Gun counters do not list a range limit because their range is far greater than that encountered in a normal scenario. For use in large DYO scenarios, however, maximum ranges are given in each nationality's Ordnance Listing. A number in brackets ("[#]") on a Gun (or light mortar, etc.) counter is that weapon's maximum range in hexes. If two numbers ("[#-#]") appear, the first is its minimum range, the second its maximum. See also 3.52.

2.26 SPECIAL AMMO: Some Guns and certain ordnance SW can fire other ammunition types besides AP/HE. Other ammunition type usage is more restricted, however, and is available only if the code letter for that ammunition type (e.g., as H for HEAT) is listed on the counter (usually on the reverse side). See also Section 8.

2.27 MANHANDLING NUMBER (M#): Each non-vehicular Gun has a Manhandling Number on its counter in the form "M#", which is used to determine its Towing (10.1) and Pushing (10.3) requirements.

2.271 GUN TARGET SIZE: The color of the M# indicates the Gun's Target Size (6.7). If the M# is printed on a white circular background, the Gun is a Small Target and a +1 To Hit DRM applies when firing at that Gun. If the M# is printed in red, the Gun is a Large Target and a -1 To Hit DRM applies when firing at that Gun.

2.28 BREAKDOWN: All Guns have an inherent B# of 12 if not listed on the counter. In cases where malfunction was more frequent, a lower B# is printed on the counter. All normal malfunction and repair provisions apply (A9.7-.74). If a non-vehicular Gun permanently malfunctions it is immediately removed from play.

2.29 INFANTRY FIREPOWER EQUIVALENT (IFE): This is a special option afforded certain Guns with a high ROF. Any number appearing in parentheses is that Gun's IFE, which is used directly on the IFT in lieu of using the normal TH procedure. A Gun using IFE has its Multiple ROF reduced by one for that shot (cumulative with all other ROF reductions). IFE may neither establish a Fire Lane nor attack an AFV on the AP TK Table, must pay TH Case A DRM as IFT DRM when changing CA to fire (D3.52), may not make a Snap Shot (A8.15), is not subject to Cowering (A7.9), may not form/participate-in a multi-unit FG *[EXC: as per D6.64]*, may not be directed by a non-armor leader *[EXC: as per D6.65]*, may not attempt Deliberate Immobilization or use/gain/retain Acquisition (6.5), and is not subject to Mandatory Fire Direction (A9.4). IFE may use Spraying Fire (A9.5), and Bore Sighting (6.44) if otherwise allowed, but may not use both simultaneously. IFE has a Normal Range of 16 hexes (and halved FP from 17 to 32 hexes). When using IFE, a weapon is not considered ordnance and is subject to Sustained Fire—not Intensive Fire—penalties as per A9.3.

2.3 360° MOUNT: A 360° Mount is the non-vehicular equivalent of a turreted vehicle, and is indicated on the counter by a large white circle around the Gun depiction. When assessing TH DRM for changing a Gun's CA (5.1), a 360° Mount Gun is treated as a T weapon type; all other Guns not listed otherwise are treated as NT types. Some T types are further classified into various sub-groups (D1.3).

2.4 MOVEMENT/FIRE LIMITATIONS: The designations RFNM, NM, and QSU refer to limits on the movement/fire of Guns due to their individual characteristics, and are explained in the rules for Gun Movement (10.). See also A4.41.

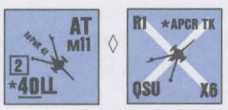
2.5 CONDITIONAL ROF: The multiple ROF of a non-vehicular NT Gun *[EXC: 76-82mm mortar]* is lowered by one for its next shot in the current phase if it changes its CA for that shot. If that Gun has no Multiple ROF to lower, it is instead covered with an Intensive Fire counter (5.6) after that shot (even if it did not use Intensive Fire), thus indicating that it cannot use Intensive Fire for the duration of the current Player Turn *[EXC: OVR Prevention; 5.64]*.

EX: A 50L AT Gun with a 3 ROF changes its CA in order to fire, reducing its ROF to 2. If it rolls a 1 or 2 on the colored dr of its To Hit DR it may attack again in this fire phase, and for this next attack its ROF will be 3 again unless it once again changes its CA.

2.6 GUN DEPRESSION/ELEVATION: Only mortars, AA Guns (2.22) and Guns capable of using AA fire may fire-at/affect a higher-level target if the range to that target is < the elevation difference between the firer's and the target's Location. Otherwise, a Gun may fire-at/affect a different-level target only if the range is ≥ the elevation difference between them *[EXC: cliff; B11.31-.32]*. A Gun in a building hex may not fire at a lower-level target in its own hex, and may fire at an higher-level target in its hex only if it is an AA Gun of ≤ 40mm. These restrictions also apply to non-AA vehicular MG and to vehicular FT, but not to SW *[EXC: they do apply to MTR/INF/RCL ordnance SW]*. If a vehicle's MA has AA capability, then its CMG does too.

2.7 PROHIBITED HEXES: A Gun cannot occupy an upper building level *[EXC: Fortified Buildings and mortars on Rooftops]*, nor can it occupy a Water Obstacle, crag *[EXC: mortars; B17.4]*, marsh, or Irrigated-paddy (G8.12) unless dm and possessed or in/on a vehicle/boat. Small-Target-Size Guns and AT/INF Guns that are not large targets are the only 5/8" non-vehicular Gun counters that may ever occupy a building/rubble hex *[EXC: Rooftop mortars (B23.85); Fortified Building (B23.93)]*.

2.8 FIRE & MOVEMENT: A Gun can fire during the same Player Turn after it has entered a new Location only if it is vehicular-mounted. See A4.41 for stationary Guns and moving crews.



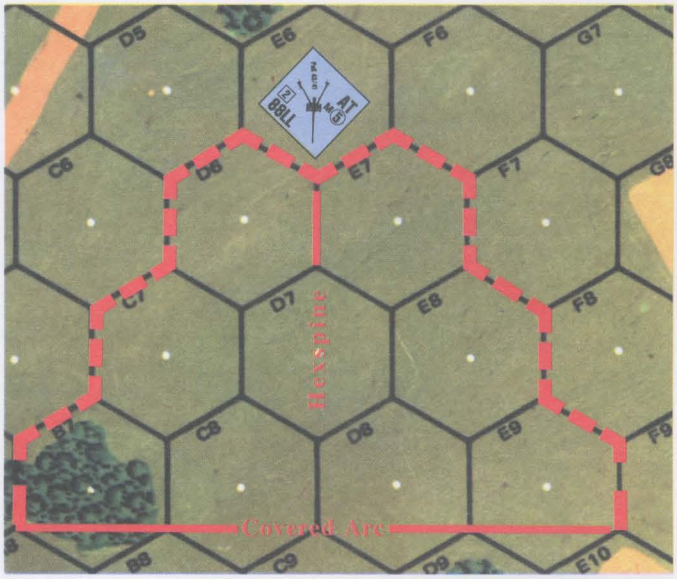
2.9 If an item on the front of a Gun or Vehicle counter has a small "★" next to it, the player should check the back of that counter where he will find (usually in abbreviated form) some special characteristic of that item. Similarly, a small "*" on the counter also indicates some characteristic of the item next to it, but in this case the appropriate Vehicle or Gun Listing Note in Chapter H must be consulted (such an * on a counter corresponds to a "†" in the Listing Notes). Do not confuse these "Notice" stars/asterisks with those used to show unarmored Target-Facings/Short-Gun-Barrels.

© 2000 Multi-Man Publishing, LLC

3. THE TO HIT PROCESS

3.1 Firing ordnance is always a one- or two-step process. First the firer must determine if he has hit the target; if he has, he must then determine the effect(s), if any, of that hit.

3.2 COVERED ARC (CA): Unlike Personnel units and SW, which can fire in any direction regardless of facing, the placement within a hex of a vehicle/Gun counter is important in that it defines that piece's current Field of Fire, thus affecting its chances of hitting a target. A vehicle/Gun's facing is called its Covered Arc (CA) and is derived by placing the counter such that its depicted gun barrel (or vehicle front) points directly at one of the six hexspines of its current hex. The CA comprises the two hexes joined by that hexspine, all the hexes (and hexsides) of the two diagonal rows of hexes that pass through those hexes while converging on the unit's hex, and all the hexes between those two converging diagonal hexrows (see the example below). If the current placement of the counter is ambiguous such that the CA hexspine cannot be determined, the opposing player may select which of the two equidistant hexspines shall be used to determine the present CA of the counter.



EX: 4E6 is also within the Gun's CA; however, during the enemy's MPh, the target would have to cross a hexside of the Gun's CA when it entered E6. A8, B8, C9, D9, and E10 are also within the Gun's CA if the range is extended another hex.

3.21 FIRING WITHIN CA: A Gun can fire only at a target within its CA. To fire at a target outside its CA, the unit must first change its CA to bring the target within that new CA. Changing a CA in the same fire phase in which the unit fires incurs a TH DRM penalty (5.1) that lessens the chance of obtaining a hit. This DRM varies in severity depending on the circumstances. See D3.52 for IFE and Canister.

3.22 CHANGING CA WITHOUT FIRE: A Gun may change its CA without firing only at the end of a friendly fire phase (not MPh), and only if at that time its crew is still able to fire it without using Intensive/Sustained Fire *[EXC: (un)limbering (10.22), Pushing (10.3), and turreted guns with other turreted armament (D3.51)]*. Such a change in the PFPh cancels any movement possibilities for that Gun (even a vehicular Gun) and its crew for the rest of that Player Turn, but does not prevent that Gun from attacking in the AFPh—presumably now without any Case A DRM.

3.3 TO HIT (TH) TABLE: The TH process is merely a matter of cross-indexing the "Target Type" classification with the "Range" to the target on the TH Table to obtain a *Basic To Hit Number (TH#). Any Gun or Ammo modifications (C4) are added directly to the Basic TH# to achieve a Modified TH#*. A Final DR ≤ this Modified TH# results in a hit vs the target, which is then resolved on the IFT vs Infantry/Cavalry/Motorcycle targets or on the appropriate To Kill Table vs non-motorcycle vehicular targets *[EXC: Boats; E5.5-.52]*. A Final DR > the Modified TH# results in a Miss, which requires no further resolution *[EXC: Vehicular Overstacking; A5.132]*. The TH DR is also subject to favorable/detrimental modifications for a variety of causes. Each possible TH DRM is listed under the TH Table and explained in Sections 5 and 6. All Firer and Target TH Determination DRM are cumulative except as noted otherwise on each applicable TH line. There are two Basic TH# for each Range and Target Type combination, one red and one black *[EXC: the Area Target Type has only red Basic TH# which are used by all nationalities]*. The proper color TH# to be used is specified for each nationality on the A25 National Capabilities Chart in the "Ordnance TH#" column. Ordnance using a TH Table can cause Collateral Attacks to Vulnerable PRC; D.8.

3.31 VEHICLE TARGET TYPE: The Vehicle Target Type can be selected only when firing at a specific vehicle (even if HIP/concealed) and must be used when firing at an AFV *[EXC: firing HE or SMOKE when using the Area Target Type (3.33)]*. A hit on the target vehicle cannot itself cause damage to any other vehicle, Infantry, Cavalry, and/or terrain in the same target hex. The Vehicle Target Type cannot be used to fire at motorcycles.

3.32 INFANTRY TARGET TYPE: The Infantry Target Type can be selected only when firing HE *[EXC: AP or HEAT vs an unarmored target (8.31, 11.52)]* and only against an unarmored target. All AFV (but not their Vulnerable PRC) in the target Location are immune to damage from a hit on this table, other than that resulting from damage to terrain (B24.121). All other in-LOS enemy units in that Location can be hit *[EXC: those immune as per 3.4]*, and all that are hit are then attacked on the IFT with a single Effects DR; see 3.4.

EX: A Russian 57LL AT Gun Prep Fires with HE on the Infantry Target Type at a shellhole hex six hexes away containing an Opel Blitz truck (0 size TH DRM), a Kuebelwagen (+2 size TH DRM) and an Infantry squad. An Original TH DR of 8 for the truck, 7 for the squad (+1 shellhole TEM), and 6 for the Kuebelwagen (+2 size TH DRM) is needed, so if that DR is ≤ 6 all three targets will be hit and their fate will be resolved on the "6" column of the IFT with a single Effects DR. An Original TH DR of 9 will not result in a possible hit vs one of the vehicles due to vehicular Overstacking (A5.132), because the Infantry Target Type was used.

3.33 AREA TARGET TYPE: The Area Target Type must be used at all times by mortars and whenever ordnance *[EXC: LATW]* attempts to fire SMOKE; otherwise it may be selected when firing HE (but not AP/HEAT HE Equivalency; 8.31). *All* (including friendly) non-Aerial units in the target *hex* can be hit (even by WP), except for those *immune* as per 3.4 *[EXC: a mortar also hits all target-hex units that are out of its firer's (Spotter's, if one is being used; 9.3) LOS if that shot hit the non-hidden enemy target that currently was the hardest for it to hit (i.e., that received the highest net TH DRM for that shot)]*. All units hit by HE are attacked on the IFT using a single DR and *half* the FP of the firing ordnance; all vulnerable units/PRC hit by WP must take an A24.31 NMC. Fire on the Area Target Type by a non-Mortar consumes all of that Gun's ROF for that turn (excluding Intensive Fire) and thus cannot be used after taking any other shot first. Use of the Area Target Type does *not* itself prohibit Interdiction. The Area Target Type cannot be used within the firer's own hex (i.e., at zero hex range), or as Bounding *First* (D3.3) or Motion Fire (D2.42).[7]

3.331 TH Cases C^1-C^4, E, G and L do not apply to the Area Target Type. TEM (Case Q) does not apply to an Area Target TH DR, but TEM that does not grant the target HD status vs that shot (see D4.2-.21) *does* apply (as per 3.4) to the resulting Effects DR. (See also 1.52 and 1.55 for TEM vs a mortar.) All other TH DRM apply to the Area Target Type TH DR in the normal manner vs each applicable target.

EX: A German 50mm mortar at level 0 Prep Fires at a woods-gully hex that contains two enemy squads (one concealed and one Known) in Crest status at level 0 and a third IN the gully. If its TH DR is low enough to hit the concealed squad it will also hit the other two squads, resulting (barring a CH) in a 2-FP attack vs all three enemy units resolved with one IFT DR (and a -1 DRM due to Air Bursts, but with no Crest TEM). Assuming the mortar retains its ROF—which it can do despite using the Area Target Type—it now Prep Fires on a building hex that con-

© 2000 Multi-Man Publishing, LLC

tains one enemy squad apiece at the ground and upper levels plus a *German* OT AFV in bypass out of the mortar crew's LOS. The crew's LOS to the ground-level (only) squad is Hindered by a grainfield, which will modify the TH DR (Case R; 6.9) vs that enemy squad—but not vs the upper-level squad (3.4). Barring a CH, each squad hit will undergo a 2-FP IFT attack modified by the appropriate building TEM (B23.3; B23.32). *If* the ground-level squad is hit, the AFV will also undergo a 2-FP IFT attack as per 3.332 (with a -1 DRM for being OT; 1.55) despite being friendly to the firer.

3.332 An Area Target Type hit vs vehicles *[EXC: motorcycle; D15.5]* is resolved as per 1.55 (see also D5.311 for mortar Air Bursts). Vulnerable PRC are attacked Collaterally (D.8B) unless otherwise prohibited.

EX: A Russian 76mm Gun uses the Area Target Type to fire HE at a hex that contains a PzKpfw IIIG that, due to being behind a wall, is HD to the firer. The Original TH DR's colored dr is < its white dr, so the tank is hit. To resolve the hit the 6 FP column of the IFT is used, with a -1 Effects DRM (all AF ≤ 4; 1.55); the wall TEM does not apply since it gave the tank its HD status (D4.2). If the wall were instead a hedge, the tank would not be HD but the net Effects DRM would be 0 (-1 [all AF ≤ 4] plus +1 [hedge TEM] = 0). If the tank were instead a truck, the hit would be resolved on the ★ Vehicle Line of the IFT's 6 FP column with a net Effects DRM of 0 (if HD behind the wall) or +1 (if behind the hedge). In both cases, if the vehicle was not destroyed, its non-shocked non-stunned vulnerable PRC would be subject to a General Collateral Attack (D.8B) but would receive no wall/hedge TEM (B9.3).

3.4 MULTIPLE TARGETS: A hit obtained on *any* TH Table affects only the target hex and, depending on the Target-Type/applicable-DRM, not necessarily all the occupants of that hex. Not all enemy (and Melee) potential targets in a hex/Location are always hit/affected, because some of them might be *immune due to qualifying for TH/Effects DRM not applicable to others, being out of the firer's LOS, being too close (2.6) to be hit or in a Location immune to a hit, being non-moving during Defensive First Fire, etc*. Hence one shot can result in a combination of hits/misses and varying subsequent effects. See also A7.4.

3.41 The Infantry, as well as the Area, Target Type may be used to attack a(n) unarmored-target/unmanned-Gun/building/bridge/vehicle, and may also attack a hex devoid of such. *[EXC: The Infantry Target Type (3.32) attacks a specific Location rather than an entire hex, and cannot be used to attack an AFV.]*

3.5 FP MODIFIERS: Most FP modifications do not apply to ordnance attacks. See also C.6.

3.51 Ordnance does not double/triple its IFT FP for PBF/TPBF; instead the chances for a CH (3.7) may increase as the range to a target decreases.

3.52 Ordnance has no Long Range Fire. Since it cannot hit a target outside its listed range (2.25), it cannot harm that target.

3.53 Ordnance FP is not halved for firing at a concealed target, nor for being pinned, nor for firing in the AFPh. However, ordnance HE FP is halved for firing into a marsh or vs fording Infantry/Cavalry; if also using the Area Target Type, the FP is halved twice.

3.6 IMPROBABLE HITS: When firing under adverse conditions, it can become impossible to roll ≤ the required TH#. When this is the case (i.e., when the lowest Final TH DR possible for that shot would be a miss), the firer still obtains a hit with an Original 2 TH DR by making a subsequent dr of 1, 2 or 3. A subsequent dr of 1 is a CH, a 2 is a turret/upper-superstructure hit, and a 3 is a hull hit (unless HD); a 4-6 (3-6 if HD) is a miss. Both hull and turret hits are considered normal hits vs non-vehicular targets.

EX: A German L Gun fires on the Infantry Target Type at a target 37 hexes away, thus requiring a Modified (3.3) TH# of 3. All of the pertinent TH DRM amount to +2, so the German player needs to make a 1 DR to score a hit. Even though this is impossible, the German can possibly score a hit with an Original 2 TH DR. Having rolled the Original 2 TH DR, he makes a third dr. If the dr is 1-3, he has scored a hit; otherwise he has missed.

3.7 CRITICAL HITS (CH): A CH is a hit so well placed that it increases the chance of causing damage on the resulting IFT Effects or TK DR. Even if the target is HD (3.9), a CH occurs on an Original 2 DR during the resolution of a HE (or WP; see 3.76) FFE (1.53), or on an Original TH DR of 2 on the Area/Vehicle Target Type or on a LATW TH Table. *[EXC: Deliberate Immobilization (5.72). If only the lowest Final TH DR possible for that shot would achieve a hit, a CH occurs only on a subsequent dr of 1 following that hit; a 2-6 results in a normal hull hit (or a normal turret hit vs a HD vehicle); if the lowest Final TH DR possible for that shot would be a miss, 3.6 applies.]* A CH also occurs while using the Infantry Target Type whenever the *Final* TH DR is < half the *Modified TH#* (3.3), or on an Original TH DR of 2 followed by a subsequent dr of 1 or ≤ half of the Modified TH#. MG (including all 12.7mm [.50-cal] and aircraft MG, but not 15mm) TK attacks have no CH possibility, since this effect is factored into their Basic TK# and Range modifiers. The effects of a HE FFE CH are resolved using the same Original 2 DR that caused it.

EX: A CE tank Prep Fires through its TCA at an Infantry unit in a wooden building two hexes away using the Infantry Target Type. There are no Gun or Ammo Basic TH# modifications at this range so the Modified TH# is 8. The only applicable To Hit DRM are cases L (-1) and Q (+2) for a combined To Hit DRM of +1. The tank would score a CH only on an Original DR of 2 (which becomes a Final DR of 3, which is the highest number that is < half of 8). Assuming the situation remains unchanged until the tank's next shot, it could repeat the same attack, this time adding the -1 Acquisition To Hit DRM of Case N for a combined To Hit DRM of 0. The tank would then score a CH on an Original To Hit DR ≤ 3 (which is also a Final DR ≤ 3). Should the situation remain unchanged again until its next shot, the tank could fire again, earning a -2 Acquisition To Hit DRM for a combined To HIT DRM of -1. The tank would then score a CH on an Original To Hit DR ≤ 4 (which equals a Final DR ≤ 3).

3.71 RESOLUTION vs NON-ARMORED TARGET: A CH vs a non-armored target is resolved on the IFT (as per A7.3-.308) with the attacking weapon's/FFE's full HE (or HE Equivalency; 8.31) FP *doubled* (with no prior halving or other modification *[EXC: C.7]* if using the Area Target Type, Barrage, etc.) *[EXC: a hit requiring a TK DR (7.1) is resolved on the pertinent TK Table (7.31-.34) after doubling the Basic TK# (7.23)]*. Furthermore, any positive TEM *[EXC: higher-building-level TEM (B23.32), pillbox NCA TEM (B30.113), SMOKE, and Hindrance]* which that target would normally be entitled to for TH or IFT purposes is *reversed* (before any movement modifications) and applies as a negative DRM to the IFT DR. Air Burst TEM, and any other negative TEM, e.g., Runway (B7.3), Hammada (F3.4), Bamboo (G3.3), as well as FFMO and FFNAM (or Hazardous Movement) are not reversed and still apply (if applicable) in addition to the effects of a CH. A CH automatically destroys a Gun and its manning Infantry (11.4).

EX: A squad using Non-Assault Movement through a woods hex is struck by a 50mm mortar HE CH. The attack is resolved on the 12 FP column of the IFT with a -2 DRM (-1 [FFNAM] + -1 [Air Burst] = -2).

3.72 RESOLUTION vs ARMORED TARGET: A HE CH vs an AFV caused by a FFE or on the Area Target Type is resolved as per 1.55, but with doubled full FP (as per 3.71) and no TEM of any kind. See also C.7. If the CH involved Air Bursts vs an OT AFV, see also D5.311. Otherwise, a CH vs an AFV has its Basic TK# doubled on the pertinent TK Table (7.31-.34).

3.73 RESOLUTION vs TERRAIN: A CH has no special additional effect vs terrain. Fire and rubble generation are handled as per a non-CH.

3.74 RESOLUTION vs MULTIPLE TARGETS: Regardless of the number of targets in a Location struck by a CH, the special provisions of a CH apply only to the target(s) determined by Random Selection. Attacks on other units hit in that Location are resolved as if struck by a normal hit *[EXC: If a CH is obtained vs a vehicle, the vehicle always receives the CH and any other units affected Collaterally are attacked normally; D.8.]* If using the Area Target Type or OBA, and more than one occupied Location is hit, use Random Selection to determine the occupied Location in which the CH occurs.

© 2000 Multi-Man Publishing, LLC



3.75 HARASSING FIRE & BARRAGE: A HE CH achieved by Harassing Fire (1.72) or Barrage (E12.) is resolved with double the full FP of that OBA—not double its lowered FP.

3.76 WP: The resolution DR for a WP FFE is a special DR used to determine if a CH has occurred as per 3.7. A separate resolution DR is made for each Blast Area *hex* attacked during the PFPh and DFPh, and for each unit/stack attacked as per 1.51. This DR always precedes the WP NMC DR, and during the PFPh and DFPh is also used to determine whether a Flame has occurred as per A24.32.

3.8 MULTIPLE HITS:[8] A Gun of ≥ 15mm but ≤ 40mm that scores a non-CH hit while rolling an Original *Doubles* TH DR on the Vehicle/Infantry Target Type has achieved two hits instead of one, with the result that the firer is then entitled to two DR on the applicable Effects table (IFT or TK), but uses only one of the two DR (firer's choice). IFE/LATW/MG-(including all 12.7mm [.50cal] and aircraft MG) fire does not qualify for Multiple Hits; nor do Guns granted ≥ 2 TK DR per hit via a pertinent Vehicle/Ordnance Note. A Multiple Hit must be applied to the same target; the firer may not apply the first hit to one target and the second to another. [Note: all unarmored units in the Location of an Infantry Target Type hit are considered the same target and subject to the chosen DR's effect.] A Multiple Hit occurring on the same To Hit DR that also yields a Gun malfunction or an ammunition depletion still yields two hits of the same ammunition type. The first To Kill DR of a Multiple Hit vs a vehicle is also used to determine the location of the second hit as per 3.9. An Improbable Hit (3.6) cannot achieve Multiple Hits.

3.9 LOCATION OF VEHICULAR HITS: It is often necessary to know the location of a hit vs a vehicular target in order to determine the correct AF (or in the case of a HD target, whether a hit has been scored at all). An ordnance hit vs a vehicle strikes its *turret/upper-superstructure* Aspect (as opposed to its hull Aspect) if the colored dr of the Original TH DR is < the white dr *[EXC: A CH vs a HD target is always considered to occur vs the turret/upper-superstructure, and can occur on an Original 2 TH DR; 3.7]*. Otherwise, the hit strikes the hull. A turreted vehicle hit on the turret bases its Target Facing (D3.2) for the subsequent resolution of that hit on its TCA, not its VCA.

4. GUN & AMMO TYPE BASIC TH# MODIFICATIONS

[Gun and Ammo Type modifications are distinct from all others because they modify the *Basic TH#*—not the *To Hit DR*—to achieve the *Modified TH#*. The distinction is very important and care should be taken not to lump these modifications together with a DRM.]

4.1 BARREL LENGTH: Put simply, the longer the gun barrel (or tube), the more accurate a weapon is at greater ranges. Therefore, all ordnance weapons (including SW MTR, INF, RCL, and 20L ATR, but not MG/LATW) are rated for tube length as being either short (*), normal (no suffix), long (L), or extra long (LL). Normal length tubes have no effect on the Basic TH# of that Gun, but all other types are subject to modification of their Basic TH# when firing at a range > 12 hexes. Barrel Length does not affect any resulting To Kill DR; the added lethality of the longer tubes is built into the To Kill Tables.

4.11 *: Short-barreled weapons must subtract one from their Basic TH# when firing at a range > 12 hexes.

4.12 L: Long barreled weapons must add one to their Basic TH# when firing at a range > 12 hexes.

4.13 LL: Extra-long barreled weapons must add one to their Basic TH# when firing at a range > 12 hexes, or must add two to their Basic TH# when firing at a range > 24 hexes.

4.2 SMALL CALIBERS: Smaller shells generally lost velocity faster than larger shells, affecting trajectory, stability, and ultimately, accuracy. Any weapon (including MG) ≤ 57mm is subject to a -1 modification to its Basic TH# for every 12 hexes (or fraction thereof) beyond 12 hex range. A Gun ≤ 40mm is subject to an additional -1 modification to its Basic TH# at > 12 hex range.

4.3 APCR/APDS: APCR ammunition was less accurate at long range due to the poor ratio of weight to diameter. APDS ammunition was also less accurate at long range due to the separation of the sabot from the core. Therefore, the Basic TH# of any shot using APCR/APDS is lessened by one for every 12 hexes (or fraction thereof) beyond 12 hex range. The German 28LL and 40LL Guns use the APCR Basic TH# Modification even if firing HE, and are not subject to APCR Depletion Numbers (8.2).

4.4 SMOKE: Ordnance using the C3 To Hit Table to fire SMOKE at ≤ 12 hexes must add two to its Basic TH#.

4.5 MODIFIED TH#: All Gun & Ammo Type modifications are cumulative and transform the *BASIC TH#* to a *MODIFIED TH#*. All other factors affecting the To Hit process are DRM which affect the To Hit DR, not the TH#.

EX: A German 4.2cm le PaK 41 (40LL) firing APCR at a tank 25 hexes away has a Basic TH# of 6, but a Modified TH# of 3 (+2 [LL] -2 [APCR] -2 [≤ 57mm] -1 [≤ 40mm] = -3).

5. FIRER-BASED HIT DETERMINATION DRM

[Players should note that certain Firer and Target Hit Determination DRM listed on the To Hit Table are also applicable to LATW/Aerial attacks. Those applicable to LATW are preceded by a L; those applicable to Aerial attacks are preceded by a @. Those preceded by a † are not applicable when using the Area Target Type.]

5.1 CASE A; FIRE OUTSIDE CA: The To Hit DRM penalty for firing a Gun at a target outside its current CA is based on a combination of the type of ordnance (2.3) and the number of hexspines adjustment being made to the CA of the Gun as it is turned to bring the target into its CA. Fast Traverse turreted weapons and 360° mounted Guns (T) incur a +1 DRM penalty for each hexspine adjustment of their TCA during that fire phase. See D2.321 for Bypass TCA side Target Facing. Slow Traverse turreted weapons (ST) incur a +2 DRM penalty for the first hexspine adjustment in their TCA, and a +1 DRM for each subsequent hexspine adjustment. Bow-mounted vehicular Guns (D1.33) and all non-360° ordnance (NT; Non-Turreted) incur a +3 DRM penalty for the first hexspine adjustment in their CA, and a +1 DRM for each subsequent hexspine adjustment.

	CASE A DRM		
Gun Type	**1st Hexspine**	**2nd Hexspine**	**3rd Hexspine**
(T) Fast Traverse	+1	+1	+1
(ST) Slow Traverse	+2	+1	+1
(NT) Non-Turreted	+3	+1	+1

5.11 All Guns use Case A to fire at targets outside their current CA when changing their CA for a shot in that phase. Turreted vehicles change only their TCA so that their target lies within that TCA. Should they elect to pivot their vehicular counter instead so as to change their VCA, the NT To Hit DRM apply to the first shot of all vehicular weapons (see also D3.51). A NT Gun must pivot within the firing hex so that the target lies within its vehicular/Gun CA. Such a pivot does not qualify the vehicle/Gun as a moving target. Regardless of Gun Type, the Case A DRM is doubled if the firer is in woods/building/rubble; in addition, a change of VCA in woods/building/rubble requires passage of a Bog Check (D8.2) first. Furthermore, once a Gun (other than a mortar) fires from woods/building/rubble it may continue to fire during that phase from that hex only inside its current CA *[EXC to all: Bounding First Firers and vehicles on the road in a woods-road hex]*. If it retains a Multiple ROF, place a CA counter on the Gun (or alternately, to prevent congestion

© 2000 Multi-Man Publishing, LLC

due to stacking, two hexes away from the Gun pointing to the same hexspine) to indicate its current CA for the remainder of that phase. The CA of a *pinned* firer fixed in the MPh would remain fixed during the DFPh.

5.12 The Case A DRM is applicable only to a Gun which made a CA change as part of its shot. If a Gun makes a CA change and fires with a Case A DRM and then fires again in the same phase, the Case A DRM will not apply unless it changes its CA again for the next shot.

5.13 BOUNDING FIRST FIRE: Case A is never applicable to an ATTACKER firing during his own MPh. A Bounding First Firer must always fire within its current CA; it may change that CA only via MP expenditure (TCA D3.12; VCA D2.11).

5.2 CASE B; FIRE IN AFPh: All ordnance weapons firing during the AFPh which did not enter their current hex/hexside during that Player Turn, and are not using Opportunity Fire (A7.25), are subject to the Case B (+2) To Hit DRM—regardless of whether the Gun has pivoted or changed its CA while in that hex. The Case B DRM is increased to +3 if the firer is in woods/building/rubble. No weapon may fire more than once in its AFPh, unless using Opportunity Fire.

5.3 CASE C; BOUNDING FIRER: A vehicle (including its Passengers) which has *entered a new hex/hexside during its MPh but does not fire until its AFPh is using Bounding Fire* and always uses Case C when firing ordnance.

Vehicular (including Passenger) ordnance which fires *during* its MPh (D3.3) must use one of the Case C DRM (i.e., it must add the +2 DRM of Case B to the applicable Gun Type DRM of Case C) as Bounding *First* Fire for any shot it takes. A vehicle with a Multiple ROF may not fire again until it has expended another MP (even if only a Delay MP).

EX: A Stabilized Gun (D11.11) firing in the AFPh after entering a new hex during that Player Turn must apply a +3 DRM (case B + C; 2 + 1) to its To Hit DR; a T or ST Gun Type must add a +4 DRM (2 + 2); a NT Gun Type or any Passenger must add a +5 DRM (2 + 3). MA AAMG would add +2 DRM (Case B only).

5.31 CASE C^1; BOUNDING FIRST FIRER, RESTRICTED AIM: A vehicle First Firing during its own MPh, and having had a continuous LOS to its target for only $2^1/_2$-3 MP during that Player Turn at the time of the shot, must add one to the Case C To Hit DRM. Case C^1 does not apply in the AFPh.

5.32 CASE C^2; BOUNDING FIRST FIRER, LIMITED AIM: A vehicle First Firing during its MPh, and having had a continuous LOS to its target for ≤ two MP during that Player Turn at the time of the shot, must add +2 to its Case C To Hit DRM. Case C^2 does not apply in the AFPh.

5.33 BOUNDING FIRST FIRE: A vehicle First Firing during its own MPh, and having had a continuous LOS to its target for > three MP uses the Case C To Hit DRM. A vehicle wishing to fire at the start of its MPh prior to entry of a new hex (or one that has had a continuous LOS to its target since before the MPh) may do so using Case C; it need not expend Delay MP first to avoid having to use Case C^1 or C^2. If the Bounding First Firer vehicle declares a shot prior to any MP expenditure, a DEFENDER can still declare a Gun Duel (2.2401) that he might win (due to the Bounding First Firer's use of TH Case C), and thus he could fire *before* the vehicle expends any MP.

5.34 CASE C^3; LATW: Any LATW firing in the AFPh without Opportunity Fire must add the +2 DRM of Case C^3 to its To Hit DR. In addition, those weapons with a Backblast (13.8) must use this +2 To Hit DRM when firing from ground-level rubble/building *unless* the firer predesignates that he will risk Desperation penalties (13.81) or is using Opportunity Fire. Should such a weapon fire from ground-level rubble/building in the AFPh without Opportunity Fire, the +2 To Hit DRM applies for both conditions and is treated as +4. Case C^3 is never applicable to Case C or any of its other subcases.

5.35 CASE C^4; MOTION FIRER: A Motion/Non-Stopped vehicle which is moving and wishes to fire in its MPh without stopping (D2.13) first, must add the applicable DRM of Case C^4 to its To Hit DR. If the AFV is equipped with a Gyrostabilizer, it must use the Case C, or C^1, or C^2 DRM as applicable (depending on MP expended in continuous LOS of the target just prior to the shot) plus an additional +1 DRM. If the vehicle is not equipped with a Gyrostabilizer, it must use the Case C, or C^1, or C^2 DRM as applicable *and* must double the lower dr of its TH DR. Motion Fire is NA for Guns *en portee* (10.5).

EX: A CE moving PSW 234/2 wishes to fire, without stopping, at a stationary T-34 six hexes away in Open Ground which has been in its continuous LOS for $3^1/_2$ MP. The Modified TH# is 10. However, Case C^4 applies so there is a +4 DRM to the To Hit DR (Case C) plus a doubling of the lower dr of the To Hit DR. The PSW 234/2 will score a hit only with a To Hit DR ≤ 6 but only if that "6 or less" DR has been achieved despite doubling the lower dr (i.e., on a TH DR of 1 & 4, 1 & 3, 1 & 2, 1 & 1, or 2 & 2).



5.4 CASE D; PINNED FIRER: Any ordnance weapon whose firer is under the effects of a PIN counter must add the +2 DRM of Case D to its To Hit DR and forfeits any Multiple ROF. Firers under the effect of Area Fire (e.g., LATW firing from shallow stream) also add the +2 DRM for each instance. See also A7.81-.82.

5.5 CASE E; FIRING WITHIN HEX: Any Gun firing at a target within its own hex must add the +2 DRM of Case E. Cases J^3, J^4, L, and M are not applicable to any To Hit DR affected by Case E. The presence of a wreck/SMOKE/AFV other than the target or firer in the same hex adds to the applicable LOS Hindrance (Case R). The Case E DRM is doubled if the firer is in a woods/building/rubble hex (unless in Bypass). If both firer and target are in Bypass, no shot is allowed unless a LOS can be drawn between their respective CAFP.

5.51 CA CHANGE: The firer's CA does not change when using Case E to fire at a target in the same hex—unless firing during the opponent's MPh as Defensive First Fire, in which case the firer's CA is changed only as much as is necessary to include the hexside that moving unit used to enter that hex during that MPh. This is the only instance where Case A DRM are applicable with Case E DRM *[EXC: VBM; D2.321]*.



5.6 CASE F; INTENSIVE FIRE: Intensive Fire is available only to Guns (not SW), and can be used only if the crew of the Gun is not pinned, shocked, or stunned. An Intensive Firing Gun automatically gains one (and only one *[EXC: OVR Prevention; 5.64]*) additional shot during that Player Turn. Intensive Fire cannot be used during the AFPh except by an Opportunity Firer. A Gun cannot use Intensive Fire until it has already exhausted its normal ROF. A Gun which has Intensive Fired replaces its fire phase counter with an Intensive Fire counter.

5.61 TO HIT PENALTY: Any Gun using Intensive Fire must add the +2 DRM of Case F to its Intensive Fire To Hit DR to reflect loss of accuracy.

5.62 MALFUNCTION: The B# of any Intensive Firing Gun decreases by two while Intensive Firing (see A.11).

5.63 RESTRICTIONS: Certain Guns may not use Intensive Fire in any form (including OVR Prevention or Final Fire; 2.241) and are so restricted by notes on their respective Listing Chart and the back of the counter in the form "No IF". Case B is applicable to Intensive Fire only as an inherent part of Case C. Loss of Multiple ROF does not cause loss of Intensive Fire capability.



5.64 OVR PREVENTION: Regardless of the number of shots a non-vehicular Gun has already taken during a Player Turn (including Intensive Fire), it is entitled to the *possibility* of one more Intensive Fire shot at a target in its own hex if it is about to be OVR *[EXC: OVR Prevention cannot be used by a Gun with a "No IF" listing on the back of its counter; 5.63]*. Immediately after the OVR MP expenditure (D7.1) is announced (but before the OVR is resolved) the Gun makes its To Hit DR vs the vehicle making the OVR, but not until its CA covers the hexside entered by the OVR vehicle. If a Gun has already fired from woods/building/rubble, it is not allowed to change its CA

© 2000 Multi-Man Publishing, LLC

(5.11) and is not eligible for OVR Prevention vs an AFV entering its hex from outside the Gun's CA. A Gun which has already Intensive Fired during that MPh suffers only one set of Intensive Fire penalties (i.e., the Intensive Fire DRM and B# reductions of the two Intensive Fire shots are not cumulative). The Original To Hit DR of the firing Gun also acts as a NMC vs its own manning Infantry. If the manning Infantry is pinned or broken as a result of that NMC, the To Hit attempt is voided (except for any Gun Malfunction or Low Ammo (D3.71) it may have caused) and the OVR vehicle resolves its OVR. If the NMC is passed by rolling < the manning Infantry's Morale Level, the To Hit DR is resolved vs the OVR vehicle and may possibly lessen the OVR attack (D7.11). Regardless of the outcome of the To Hit DR, the Gun is marked with a "No Fire" counter to indicate that it may not fire again during that Player Turn—even if it is about to be OVR again.

5.641 A non-vehicular Gun not currently marked by a First/Final/Intensive Fire counter is subject to all the provisions of OVR Prevention when about to be OVR except that its shot is not penalized as Intensive Fire and it is not marked with a "No Fire" counter thereafter.

5.7 CASE G; DELIBERATE IMMOBILIZATION ATTEMPT: Often an AFV target's AF is so formidable that it makes a kill by certain Guns unlikely if not impossible. A player may instead attempt Deliberate Immobilization with his ordnance by adding the +5 To Hit DRM of Case G.

5.71 Deliberate Immobilization can be attempted only by ordnance, and only if the weapon's Basic TK# (for the ammunition type it chooses to fire) is > the target's lowest hull AF, and only with a hull hit at a range of ≤ six hexes. A Deliberate Immobilization attempt is not allowed against a HD/immobilized target, or with Indirect Fire or MG/IFE, or when using the Area Target Type. Acquisition DRM are not applicable to a Deliberate Immobilization attempt. However, Acquisition can be gained while attempting such a shot in case the firer subsequently fires on the target normally.

5.72 A Deliberate Immobilization hit is not resolved on a To Kill Table—even if it otherwise would be considered a CH; if it results in a hull hit, automatic Immobilization results and causes a Crew TC; see D5.5. If it does not result in a hull hit, there is no effect.

5.8 CASE H; CAPTURED GUN: Any To Hit attempt by a Captured weapon (or one manned by a non-qualified unit; A21.13) must add the +2 DRM of Case H. If the weapon is both Captured and manned by non-qualified Infantry, the Case H DRM is doubled. A Captured weapon is also penalized by using the red TH# and reducing its B# by two (see A.11 & A21.11-.12).

5.9 CASE I; BUTTONED UP: Any BU, CT AFV must add the +1 DRM of Case I to its To Hit DR. Being BU has no other effect on the LOS of a vehicle *[EXC: Night; E1.114]*, even if the target is outside its CA, but prevents Interdiction (A10.532). RST and 1MT AFV must be BU to fire their MA (D1.321-.322).

[There are numerous other firer-based To Hit Determination DRM listed elsewhere in the rules; CX (A4.51), Overstack (A5.12), Leadership (A7.531; D3.44), Encircled (A7.7), Spotted Fire (9.3), Bypass TCA change to/through (or coinciding with) side Target Facing (D2.321), and Stun (D5.34).]

6. TARGET-BASED HIT DETERMINATION DRM

All Firer and Target To Hit Determination DRM are cumulative except where noted otherwise on each applicable To Hit DRM line.

6.1 CASE J; MOVING/MOTION VEHICULAR TARGET: Ordnance firing at a Dashing target (A4.63), or at a vehicle *which has entered a new hex or used VBM (D2.3)* during that Player Turn, or is/was in Motion status during that Player Turn, must add the +2 DRM of Case J to its To Hit DR.

6.11 CASE J^1; RESTRICTED AIM: If ordnance Defensive First Fires at a moving (C.8) vehicle which at that point has just expended ≤ three MP in the firer's continuous LOS, it must add Case J^1 to its To Hit DR. Case J^1 = Case J (+2) plus (+1) = +3.

6.12 CASE J^2; LIMITED AIM: If ordnance Defensive First Fires at a moving (C.8) vehicle which at that point has just expended ≤ one MP in the firer's continuous LOS, it must add Case J^2 to its TH DR. Case J^2 = Case J (+2) plus (+2) = +4. Case J^1 is not applicable to Case J^2.

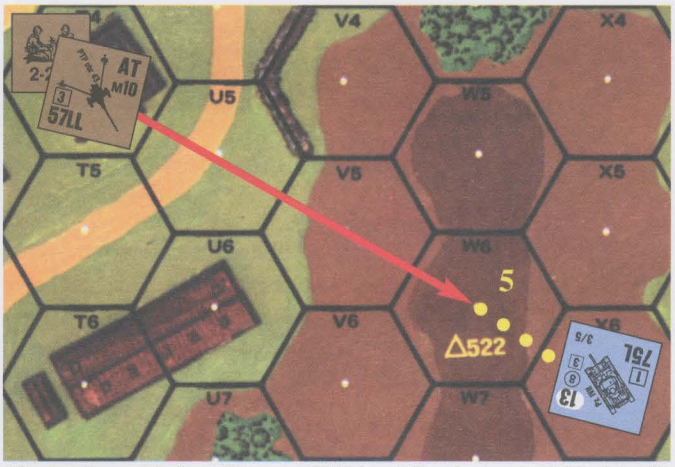
6.13 CASE J^3; FFNAM: Ordnance using Defensive First Fire vs moving Infantry using Non-Assault Movement must add the -1 DRM of Case J^3 to its TH DR.

6.14 CASE J^4; FFMO: Ordnance using Defensive First Fire vs any moving Infantry in Open Ground must add the -1 DRM of Case J^4 to its TH DR.

6.15 Cases J^1 and J^2 both deal with a moving (C.8) vehicular target's expenditure of time in the LOS of a firer since the last hex occupied by that target out of the firer's LOS. A target that begins its MPh (or a portion thereof while subject to neither Case J^1 nor J^2) in the firer's LOS is unaffected by these Cases until it is out of that LOS *after* entering a new Location/vertex; i.e., the target's being momentarily out of the firer's view *as* it moves from center-dot/vertex in his LOS to another in his LOS does not constitute leaving his continuous LOS.

6.16 A moving vehicle that ends its MPh with MP remaining is assumed to expend all those MP in its present hex (D2.1). However, the subcases of J apply only to Defensive First Fire shots; ordnance firing at a moving vehicle during the DFPh is subject to Case J only.

6.17 An ordnance weapon may not Defensive First Fire at the same target in the same Location more times (including the use of Multiple-ROF/Intensive-Fire) than the number of MF/MP (including Delay MP; D2.17) expended by that target (in its current Target Facing, if an AFV) in that Location (FRD, but a minimum of once per hex). Within this restriction, all MF/MP thusly expended by the target in that Location before the firer takes his first shot may (*must*, if engaging in a Gun Duel; 2.2401) be used to minimize the application of Case J^1/J^2 DRM to that first shot, or (if not engaging in a Gun Duel) may be applied in increments to a series of shots at it.



EX: A tank expends five MP to enter 3W6 from X6 and enters the LOS of the AT Gun in T4 for the first time. The tank has expended > 3 MP in W6 in the AT Gun's LOS, so the AT Gun can Defensive First Fire on the tank without application of TH case J^1 or J^2. However, if the AT Gun retains its Multiple ROF and wishes to First Fire on the tank again in W6 before the tank moves farther during that MPh, it can fire only one more time (again using Case J) because the tank has expended only an additional 1½ MP in its LOS since the 3½ MP expended (the minimum MP expenditure in LOS to void the application of Cases J^1 and J^2) before the previous shot.[9] Alternatively, the Russian theoretically could shoot five times (once per MP expended), using Case J^2 for the first shot, Case J^1 for the second and third shots, and Case J for the fourth and fifth shots.

6.2 CASE K; CONCEALED TARGET: Ordnance firing at a hidden/concealed target *[EXC: pillbox/cave occupant; B30.7 and G11.812]* must add the +2 DRM of Case K to its TH DR vs that target *[EXC: when firing*

© 2000 Multi-Man Publishing, LLC

SMOKE, Case K applies only if the target hex contains ≥ one non-hidden enemy ground unit but none of those units are Known to the firer/Spotter]. The effect of a hit that used Case K is not halved as Area Fire.

6.3 CASE L; POINT BLANK RANGE: Ordnance *[EXC: non-ATR LATW using its own TH table; 13.]* firing at a range of one or two hexes is considered to be firing at Point Blank Range and adds the -1 DRM of Case L to its TH DR if firing at two-hex range, or the -2 DRM of Case L to its TH DR if firing at one-hex range, unless firing at a Motion/Non-Stopped vehicle or Motorcycle-Rider. Case L is not applicable if using the Area Target Type, firing at a target in the firer's hex (including Aerial targets), and/or the *firer* is in-Motion/Non-Stopped/Aerial.

6.4 CASE M; BORE SIGHTED LOCATION:[10] A Gun, or allowed SW (6.41), firing at a target in a Location it has Bore Sighted may add the -2 DRM of Case M to its TH DR. If Cases M and N both apply, the firer may choose one *or* the other.

6.41 Bore Sighting may be used only by a Scenario Defender (see Index). All Guns (including only the MA, and SA [Secondary Armament, as per Chapter H Vehicle Listings], of vehicles *[EXC: not FT or LATW]*) of such a force may be Bore Sighted, but the only SW that can be are MMG, HMG, and light mortars (9.2).

6.42 During setup, the Scenario Defender may choose one Bore Sighted Location for each allowed weapon. This Location must be outside the weapon's own hex, and within both the LOS of the weapon (or its Spotter; 9.3) and its Normal Range (16 hexes maximum). The Bore Sighted Location, the weapon's and its possessor's/crew's ID, and the setup Location must be recorded. In a building hex only the ground-level Location (which includes its Bypass area) may be Bore Sighted.

6.43 The Bore Sighting DRM cannot be claimed if the weapon is being fired by other than its original crew/manning-Infantry, but is permanently lost only if the weapon leaves the setup Location, changes Crest/Entrenched position, (un)Hooks, (un)Limbers, (un)Packs, is dm, or its VCA (not just CA) changes.

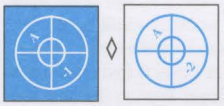
6.44 A MG/IFE non-ordnance attack *[EXC: all forms of Residual FP; A8.2, A9.22]* vs a unit in the firing weapon's Bore Sighted Location may deduct two from its IFT DR unless using Spraying Fire or taking a Snap Shot *[EXC: vs Infantry, only such an attack conducted as Defensive First Fire (A8.1) qualifies for this -2 DRM]*. The -2 Bore Sighting DRM may be used by a FG making such an attack only if *all* elements of that FG have Bore Sighted that same Location. See also E1.71.



6.5 CASE N; ACQUIRED TARGET: When a Gun (including the MA and SA [Secondary Armament, as per Chapter H Vehicle Listings], of vehicles *[EXC: not FT or LATW]*) of ≥ 20mm other than a mortar fires at (not Interdicts) a Known unit or a bridge, it may place a ½" -1 Acquired counter on its target (or flip over an already present -1 counter to the -2 side), and this Acquired counter then applies as a TH DRM for subsequent shots by that Gun *[EXC: Acquisition DRM cannot be used for Deliberate Immobilization attempts; (5.71); see also 6.54-.57]*. A target can be acquired by more than one Gun, but no target is subject to more than a -2 Acquisition DRM per Gun. The target remains acquired until the Gun/manning-Infantry that placed it leaves its present Location *[EXC: Gyrostabilizer; 6.55]—or* the Gun changes its CA without firing on its already-acquired target during the current phase—*or* the Gun (or its CMG unless in a separate turret) attacks (including in CC, or Interdicts) a different target—*or* the Gun malfunctions or fires SMOKE (6.56), canister or IFE—*or* its crew/manning-Infantry are eliminated or not in Good Order, or they no longer possess it, or they fire Inherent FP/SW or use Interdiction, or they (un)limber/dm it—*or* the target is no longer in their LOS *after* entering a new Location/vertex-(see 6.15) (although in this case the last in-LOS Location occupied by the target will remain acquired; 6.51).

6.51 A ½" Acquired-counter DRM gained against a stack cannot be retained on all those units should they scatter and enter different Locations. The firer may retain only one such Acquired counter; he may not create more to cover several targets at once. He may choose which of his previously acquired targets will remain acquired, but need not specify which one until he fires at it or that unit has finished its MPh/APh/RtPh/CCPh-Withdrawal (whichever occurs first). If an acquired target leaves its present Location and thereby goes out of the firer's LOS (as per 6.15; a free LOS check may be made to ascertain if this occurred), the ½" Acquired counter remains in the last Location that target occupied prior to leaving the acquirer's LOS. If the firer does not lose that counter as per 6.5, it will still apply should another Known unit occupy that acquired Location. A ½" Acquired-counter DRM applies only to all Known units (/bridge) in that target Location, even if only one such unit therein was previously acquired.

6.52 BRACKETING: Acquisition DRM gained on one target/Target-Type can be transferred to another target/Target-Type when the firer announces a shot at-that-new-target/using-that-new-Target-Type, provided the target Location (or hex, if using the Area Target Type) remains the same during the transfer **[***EXC: Area Acquisition cannot be transferred to another Target Type and used vs a concealed unit (6.57), nor can a mortar transfer its Area Acquisition to another Target Type at all].*



6.521 AREA ACQUISITION: Acquisition gained while using the Area Target Type is symbolized by use of a ⅝" Acquired counter. Area Acquisition follows all the principles of ½" counter Acquisition except as specified otherwise. An Area Acquired counter applies to *all* non-Aerial units and terrain which are currently in the acquirer's LOS in that Acquired counter's *hex* (unlike a ½" Acquired counter, which cannot apply in more than one Location). Using the Area Target Type, a Gun can fire on a hex not containing a Known enemy unit; Area Acquisition can be gained on that hex, and can be used vs any (even subsequent/unknown) occupants of that hex which are in that firer's LOS when he fires. An Area Acquired counter cannot track a moving/routing/advancing/ Withdrawing unit as per 6.51; the firer would have to reacquire such a unit each time it enters a new hex. All (even light) mortars use Area Acquisition.

6.53 MULTIPLE ROF: Acquisition DRM are gained per consecutive TH attempt unless otherwise prohibited. An Acquisition DRM already earned applies to all TH attempts against the allowed target(s) in that fire phase and any subsequent fire phase, as per 6.5.

6.54 IFE: A Gun using IFE cannot place an Acquired counter, nor can it use or retain a previously placed one.

6.55 GYROSTABILIZER: Only a Stabilized Gun (D11.1) may claim/retain its Acquisition DRM for Motion/Bounding-*First* Fire TH attempts, and only if it retains its LOS to that target (as per 6.15) during its move. If having Area Acquisition on its target, it must transfer to a ½" Acquired counter before it can use that DRM for Motion/Bounding-First Fire (since use of the Area Target Type is NA for such fire; 3.33).

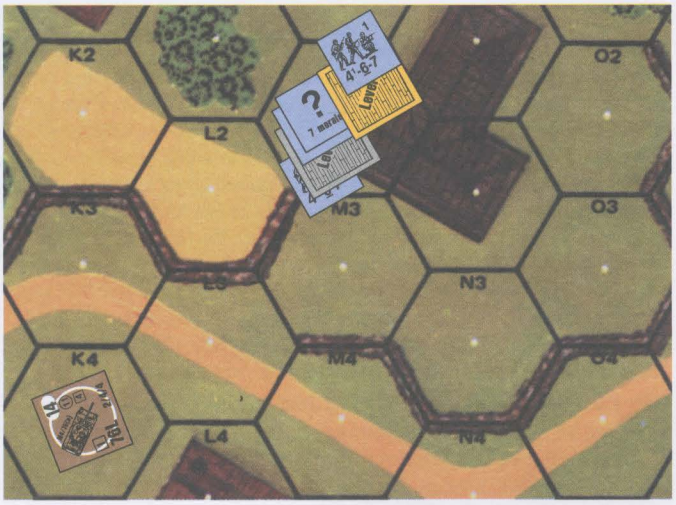
6.56 SMOKE: A target cannot be acquired (or Acquisition maintained) by firing SMOKE. However, an existing Acquisition DRM can be used normally to attempt to place SMOKE in the hex.

6.57 CONCEALED: A concealed target becomes acquired only if using the Area Target Type—or, when using the Vehicle or Infantry Target Type, if the acquiring shot causes the loss of that concealment. (See the 6.57 EX at the top of the next page)

6.58 Each Acquired counter contains a letter to match it with the Gun it applies to. Acquired counters are provided in several different colors so that different types of Guns with the same ID letter can be kept track of at one time.[11]

EX: A PzKpfw VG (ID letter C) fires on an Infantry target using the Area Target Type during his PFPh and places a ⅝" -1C Area Acquired counter on the target. The tank fires on the same target in the same hex during his DFPh using the Area Target Type, but this time uses the -1 To Hit DRM for an acquired target. The Area Acquired counter is flipped over to its -2C side. The tank attacks the same target in his next PFPh again in the same hex but this time switches to the Infantry Target Type. The PzKpfw VG still gets the -2 Acquisition DRM for this attack, but switches to a ½" -2C Acquired counter.

© 2000 Multi-Man Publishing, LLC



6.57 EX: The tank in 3K4 wishes to Final Fire at M2, each level of which contains a squad (with the one on Level 1 concealed). Using the Infantry Target Type, the tank can fire at either Level 1 or Level 2 of the building; barring malfunction, it will gain Acquisition on Level 2 if it fires at that squad—but if it fires at the squad on Level 1 it can acquire it only if it achieves a "PTC" or better result on the IFT. Alternatively, it can use the Area Target Type to fire at (and acquire) both Levels 1 and 2. In neither case however, can it affect the squad at Level 0 (except via rubble), which is out of its LOS. The tank uses the Area Target Type to fire (and thus has no Multiple ROF; 3.33), so a -1 Area Acquired counter is placed above the Level 1 counter. Assuming the situation remains unchanged through the beginning of its PFPh, the tank can now fire again on the Area Target Type at M2 with the -1 Acquisition DRM, or it can transfer that DRM to a ½" Acquired counter and use it with the Infantry Target Type to fire at level 2. It cannot transfer the DRM to use with the Infantry Target Type to fire at Level 1 if the squad on Level 1 is still concealed; if it fires at this squad, its prior Acquisition is lost (6.52).

If the tank has a Stabilized Gun, it can forego attacking in the PFPh and instead move to L3, where it can use Bounding First Fire to attack one level of M2. It will retain its Acquisition DRM for this attack, but must transfer it to the Infantry Target Type (using a ½" Acquired counter) when it announces the attack (6.55). It cannot use (and will lose) its Acquisition DRM if it attacks the concealed squad on Level 1—but it *can* attack the unconcealed squad on Level 0 using its Acquisition DRM, because it had Area Acquisition in that *hex* when this squad came into the tank's LOS (6.52).

Now assume that instead of firing during Final Fire, the M4/76 fired on the Area Target Type during its Defensive First Fire when the squad shown on Level 2 of M2 originally entered that Location. Both Levels 1 and 2 would be acquired, and this DRM would still apply at both levels if that squad then descended to Level 1 (or if the squad at Level 0 ascended to Level 1) and the tank fired again on the Area Target Type. However, if the squad moved from Level 2 of M2 into N2 it would no longer be acquired, nor could the tank transfer its Area Acquired counter to a ½" Acquired counter to track that squad into N2.

If instead the tank had fired on the Infantry Target Type to attack the 4-6-7 when it entered Level 2 of M2, it would have gained a -1 ½" Acquisition counter which would follow the squad when it moves to Level 2 of N2; when the squad moves to Level 2 of N1, the ½" Acquisition counter would stay at Level 2 of N2.

If the tank then used Area Target Type vs hex N2, it could transfer the Acquisition DRM and replace the ½" Acquisition counter with a ⅝" Acquisition counter.

6.6 CASE O; HAZARDOUS MOVEMENT: Ordnance firing at a target engaged in Hazardous Movement must add the -2 DRM of Case O to its TH DR. Case O cannot be used with Case J/its-subcases.

6.7 CASE P; TARGET SIZE: All vehicles (D1.7) and Guns (2.271) are rated for size, based on their height and bulk. Ordnance firing on such a target *[EXC: units in a pillbox (B30.32) or in a cave (G11.83)]* must add the applicable Target Size DRM of that target (ranging from -2 to +2 as depicted on the counter) to its TH DR (see 11.2 and A12.2).

6.8 CASE Q; TEM: TEM[12] applicable to the target must be added as a DRM to the TH DR of a shot taken on the Vehicle or Infantry Target Type or on a LATW TH Table *[EXC: BAZ firing WP]*. Case Q does not apply to an Area Target Type TH DR (see 3.331).

6.9 CASE R; HINDRANCE: Each applicable Hindrance DRM must be added directly to the TH DR of any shot. Such application would not apply to the effects of any hit thus obtained (see C.3).

[There are numerous other Target-Based Hit Determination DRM listed elsewhere in these rules; vs Overstacked Personnel (A5.131), vs Cavalry (A13.5), vs mounted motorcyclist (D15.5).]

7. TO KILL TABLES

7.1 A hit scored on a vehicle while using a LATW TH Table or the Vehicle Target Type is resolved on the applicable To Kill (TK) Table (7.31-.34). There are four different TK Tables; each is consulted only to resolve hits using its particular ammunition type. Each TK Table lists a Basic TK# for each weapon capable of using that type of ammunition.[13]

7.11 TK# DERIVATION: The *Basic TK#* of an ordnance hit vs a vehicle *[EXC: via the Area Target Type]* is found by consulting the TK Table used for that ammunition type to find the TK# listed under that Gun Caliber and Length. This Basic TK# is then increased/decreased by all applicable TK modifications (Cases A-D) to reach a *Modified TK#*. Lastly, the *Final TK#* is derived by subtracting from the Modified TK# the Armor Factor (AF; D1.6) of that portion of the AFV which was hit. The AF is not used to modify the TK# of an unarmored vehicle or a Partially Armored AFV hit in an unarmored Target Facing/Aspect (3.9). The Final TK# is the DR total that the firer must roll < in order to guarantee elimination of the vehicle. An AFV hit in an unarmored Target Facing/Aspect by ordnance is treated as an unarmored vehicle, including use of the appropriate Unarmored Vehicle TK# *[EXC: an Area Target Type hit; 3.332]*.

7.12 AERIAL AF: The Aerial AF is listed on the C7.11 AF Table and is used instead of the normal AF if an AFV is hit by an aircraft attack, an optimally positioned DC (7.346), or in its Underbelly (D4.3). Such an attack uses the Aerial AF listed beneath the AFV's worst AF (either hull or turret—regardless of the "location" of the hit)—even if attacked through the vehicle's front Target Facing.

EX: The worst AF of a Russian T-50 is "3", so that tankette's Aerial AF is "2".

7.2 MODIFIED TK#: Four modifications of the Basic TK# are possible:

7.21 CASE A; AFV REAR TARGET FACING: The Basic TK# vs an AFV hit (or attacked by FT/DC/MOL) in its armored rear Target Facing is always increased by one. All aircraft hits vs an armored Target Facing/Aspect (3.9) qualify for the rear Target Facing modification. Otherwise, normal Target Facing rules apply.

7.22 CASE B; AERIAL/DC/MOL ELEVATION ADVANTAGE vs AFV: The Basic To Kill number of an aircraft hit vs an armored Target Facing/Aspect (3.9) is further increased by one (or by two if the AFV is Open Topped). The Basic To Kill number of a MOL attack vs an AFV is also increased thusly if the attacker has at least a one level elevation advantage. Case B also applies to the Position DR (but not the To Kill DR) of a DC vs an AFV if the DC is Placed/Thrown from at least a one level elevation advantage.

7.23 CASE C; AFV CH: Whenever an AFV is struck by a non-Area Target Type Direct Fire CH, the Basic TK# is doubled prior to the application of any To Kill modifications. See 3.72 for Area Target Type and Indirect Fire CH.

7.24 CASE D; RANGE EFFECTS VS AFV: The penetration capability of an AP/APCR/APDS shell decreases as the range increases. The Basic TK# of any non-aerial hit vs an armored Target Facing on the AP or APCR/APDS To Kill Tables is modified according to the range charts on those tables. Range has no effect on the Basic TK# of a HEAT or HE hit, nor vs an unarmored target. See 7.344 for Range effects on FT use.

EX: A 50L AT Gun fires at the rear Target Facing of a KV-1E tank at 25 hexes, resulting in a hull hit. The Basic TK# is 13. Case A (+1) and Case D (-2) of the To Kill Modifiers apply, yielding a Modified TK# of 12. The AF of the KV-1E's rear hull armor is 8, which is subtracted from 12, yielding a Final TK# of 4.

© 2000 Multi-Man Publishing, LLC

7.7 AFV DESTRUCTION TABLE

Final Effects DR	Bomb/ Direct Fire[C]	DC[D]	FT/MOL	MG[F]	Indirect Fire[E]	A-P Mines[G]	A-T Mines[G]	CC
[A]≤ Half TK#/K/1KIA/CCV	Burn	Burn	Burn	Burn	Burn	Im	Burn	Burn
[A]< TK#/K/1KIA/CCV	Elim	Elim	Burn	Elim	Elim	Im	Elim	Elim
= TK#/K/1KIA/CCV	Im[H]/Sh[T]	Im[H]/Sh[T]	Elim	Stun	Im[H]/Sh[T]	Im	Elim	Im
HE 1 > Final TK# /K	Im[H]/Sh[T]	Im[H]/Sh[T]	NA	NA	Im[H]/Sh[T]	NA	NA	NA
Non-HE[B] 1 > Final TK#	P. Sh	NA	NA	NA	NA	NA	NA	NA

[A]: -1 DRM to Final To Kill DR for Burning Wreck determination (only) if AFV has Red CS# [B]: Includes HEAT [C]: Includes Aerial Fire

[D]: Requires Position DR (C7.346) [E]: Use Original IFT DR for Hit Location (C1.55) [F]: Includes 12.7mm and 15mm and Aerial Fire

[G]: If AFV's lowest hull AF is 0, treat it as an unarmored vehicle [H/H]: Hull Hit [T/T]: Turret Hit

1KIA is the DR required for a 1KIA result on the IFT K is the DR required for a K result on the IFT

EX: A LMG at Level 2 fires at the rear Target Facing of an adjacent PzKpfw IIA, resulting in a hull hit. The Base TK # is 4. Case A (+1) and Case D (+2) of the To Kill Modifiers apply, but not Case B, yielding a Modified TK # of 7. The AF of the PzKpfw IIA's rear hull armor is 1, yielding a Final TK # of 6.

7.3 Each of the four To Kill Tables has unique features not found on the others.

7.31 AP TO KILL TABLE: Several Gun Caliber/Length types are listed more than once and in different locations, seemingly resulting in two Basic TK# for the same weapon. However, such dual weapon listings are color coded for identification purposes. For example, Russian 76L AFV armament has a Basic TK# of 13 (found under the brown 76L listing), not 17 as is found under the other listing of 76L armament. Similarly, the red ATR listing with a Basic TK# of 6 is used with the Russian ATR and the Finnish, Japanese, Italian, and Dutch 20L ATRs, while the ATR used by other nationalities has a Basic TK# of 5.

7.311 vs UNARMORED: Barrel Length, range, and AF have no effect on the TK# of a hit vs an unarmored vehicle; in this case the Basic TK# of each basic Gun Caliber Size also serves as the Final TK#.[14]

7.32 APCR/APDS TO KILL TABLE: The German 28LL and 40LL always use the APCR To Kill Table (unless firing HE), since the range characteristics of their projectile (APCNR—Armor Piercing Composite Non-Rigid) were more akin to that of APCR.

7.321 The Final TK# for an unarmored vehicle hit by APCR/APDS is equal to that listed on the AP To Kill Table for unarmored vehicles.

7.33 HEAT TO KILL TABLE: Barrel lengths have been omitted on the Gun Caliber listings since the Basic TK# listed applies to any Gun of that caliber which can use HEAT (as indicated by the H# on the counter).

7.331 Any unarmored vehicle hit by HEAT has a Final TK# of 11.

7.332 There is no Case D (Range) modification to the Basic TK# on the HEAT To Kill Table.

7.34 HE TO KILL TABLE: Barrel Length and specific Gun Caliber Sizes are not listed on the HE To Kill Table. The firer simply uses the highest Gun Caliber listing that does not exceed the caliber of the fired Gun. For example, a 76L Gun firing HE has a Basic TK# of 7 or 12, as listed in the "70+" column. OBA and Area Target Type fire is resolved on the IFT as per 1.55.

7.341 There is no Case D (Range) Modification to the TK# on the HE Table.

7.342 The HE TK# listed for unarmored targets is the Final TK#.

7.343 HE rounds also generate a greater likelihood of a Shock/Unconfirmed Kill (7.41) and Immobilization (7.5).

7.344 FT/MOL: No AF apply to a FT/MOL attack. The Basic TK# of both FT and MOL attacks are increased by +1 if the AFV is CE, or by +2 if the AFV is OT (both modifiers can apply only to a FT attack; MOL attacks can be modified by only one or the other). To Kill Modification Cases C and D are NA to FT/MOL. However, the Basic TK# of a FT is halved if it is firing at Long Range. Other factors (e.g., "?"/CX/SMOKE /Hindrance/TEM/AFPh-use) do not modify the Basic TK#.

7.345 MORTARS: Mortar fire, being indirect in trajectory, is always resolved on the IFT (1.55) and therefore never uses the HE (or any other) To Kill Table.

7.346 DC: The resolution of a Placed/Thrown DC attack vs an armored target (A23.5) requires a Position DR to determine the AF to be applied. The DC Position DR also serves as the hit location DR (3.9). If placed through an unarmored target facing, make an IFT (rather than a To Kill) DR vs the vehicle as if it were unarmored (A7.308). Any Collateral Attack(s) thus obtained by a Final Position DR ≥ 9 (and therefore prior to a To Kill DR) must use a new DR.

DC POSITION DR	Result
≤ 5	Optimally Positioned; Use Aerial AF
6-8	Successfully Positioned; Use AF
9-11	Poorly Positioned; No Effect vs AFV *
≥ 12	No Effect vs AFV or its PRC @

* Resolve vs target's vulnerable PRC as a Specific Collateral Attack.
@ Resolve only vs other unarmored units in AFV's Location, and as an Area Fire attack (as well as vs any in Thrower's Location; A23.6).

DC POSITION DRM:

+2	Non-stopped or Motion or concealed AFV Target
+2	Thrown DC (+3 if Thrown from Motion/Non-Stopped conveyance)
+1	Placed/Thrown through hull front Target Facing
+1	AFV target is CE
+1	Thrown in AFPh (unless by Opportunity Firer)
+1	CX
-1	Placed/Thrown through hull rear Target Facing
-1 or -2	* To Kill Modification Case B (as applicable)
-2	Immobile or OT AFV target (each)
-2	Vehicle target is in Bypass in same hex as Placing/Throwing unit

* The Case B To Kill Modification applies inversely to the Position DR, rather than modifying the Basic TK#.

7.35 DUD: Any Original TK DR of 12 (regardless of ammunition or Target Type) has no effect.[15]

7.4 SHOCK/UNCONFIRMED KILL (UK): A hit which fails to penetrate armor can still have devastating effects on the inside of the vehicle.[16]

7.41 OCCURRENCE: A Shock *possibility* occurs whenever a non-MG, non-HE To Kill DR is one > the Final TK# of an AFV. Such an AFV must take a NTC, failure of which results in placement of a Shock counter on the AFV. An *automatic* Shock is caused by an HE turret hit or FFE/DC effect DR one > the Final TK#/K IFT result number, or on a turret hit TK# equal to the Final TK#/K IFT result on Direct, Indirect, and DC attacks; no TC is necessary (see 7.7 AFV Destruction Table).



7.42 EFFECT: The crew and passengers of a shocked AFV are incapable of any action. If CE, they must immediately BU and are not subject to

© 2000 Multi-Man Publishing, LLC

any Collateral Attack; however, any Vulnerable Riders may be, as per D.8 and may unload in their MPh (D6.5). A shocked AFV may not move (even to pivot or change TCA), Interdict, or attack (even in CC). No MP expenditure is necessary to bring the shocked AFV to an automatic halt. However, any ensuing First Fire or DFPh attacks vs a shocked AFV that had entered a new hex during that Player Turn are still subject to applicable To Hit DRM cases. At the end of the next RPh the AFV must roll for recuperation (Δ), even if already Abandoned before being hit. On a dr of 1 or 2, the Shock counter is removed; on a dr of 3-6 it is flipped over to its UK side. An AFV under an UK counter is still shocked, and must end its next RPh by rolling again for recuperation. On a dr of 1-3, the UK counter is removed; on a dr of 4-6 the AFV is flipped over to its wreck side with no DR for Crew Survival. A shocked AFV which is hit by another Shock result must flip its UK counter back to the Shock side; if already on the Shock side there is no additional effect.



7.5 IMMOBILIZATION: A Final To Kill DR equal to the Final TK# of any AFV struck by a hull hit results in Immobilization of that AFV regardless of Target Facing *[EXC: HD to firer; D4.2]*. A Final HE/DC To Kill DR one > the Final TK# of a hull hit or an Indirect Fire attack resulting in a K/# vs the hull on the IFT also results in Immobilization of the AFV. Such Immobilization causes an automatic Crew TC (D5.5). A FT/MOL/MG/IFE attack never results in Immobilization. A FT/MOL To Kill DR equal to the Final TK# of an AFV eliminates the AFV but does not turn it into a burning wreck and therefore allows a Crew Survival DR.

7.6 BURNING WRECK: Any Final To Kill DR ≤ half of the Final TK# of a vehicle target turns that vehicle into a burning wreck by placing a Blaze counter on top of the resulting wreck (B25.14). The PRC of any vehicle which becomes a burning wreck are eliminated with no chance to roll for survival, but there is no direct effect on other Infantry in the hex. All vehicles eliminated by a FT/MOL attack DR < its To Kill Number are automatically burning wrecks.

7.7 AFV DESTRUCTION TABLE: Rules 7.4-.6 are based on a TK# for the target AFV and therefore do not apply to any combat resolution not resolved on one of the To Kill Tables. However, Immobilization, Shock, burning vehicles, and other results can still occur via other forms of attack, but only by the rules specified for those forms of attack; these results are summarized on the AFV Destruction Table. On this Table, HEAT = "Non-HE", and a Dud always takes precedence over any result shown. (See AFV Destruction Table at the top of page C15)

8. SPECIAL AMMUNITION

[The use of Special Ammunition Depletion rules requires that players maintain a written side record of the current capabilities of each Gun in play. The following information is not meant to be all inclusive, but rather is supplemental in nature; the game effects of these ammunition types are in some cases described elsewhere.[17]]

8.1 AMMUNITION DEPLETION: A Gun/SW capable of firing Special Ammunition must announce its intention to do so prior to rolling that To Hit DR. The Ammunition Depletion rules (8.9) then govern the effects of the To Hit DR. Weapons with a Multiple ROF may choose a different type of ammunition for each shot.

8.11 APCR[18] (A)/APDS[19] (D): The availability of APCR, APDS, and certain other munitions varies with the time frame of the scenario (as per the Ammunition Supply Chart for APCR/APDS) and is listed on the back of each applicable counter (8.9).

8.12 AMMUNITION SUPPLY CHART: Some Guns/AFV have a different Depletion Number printed on their counter, which applies to that Gun/AFV. U.S. ordnance includes Guns in British/Commonwealth service, while British ordnance includes Guns in Commonwealth service. A parenthesized month indicates the start of availability in that year.

Nationality/Date & Gun Size	1941	1942	1943	1944	1945
GERMAN: 50L	A5	A6	A5	A4	—
37L, 47L, 50, 88L	A4	A5	A4	A3	—
75L,76L	—	A5	A4	A3	—
AMERICAN: 76L	—	—	—	A4(Aug)	A5
90L	—	—	—	—	A5
RUSSIAN: 45L, 45LL, 76L, 76LL	—	A4	A5	A6	A7
57LL, 85L	—	—	A4	A5	A6
BRITISH: 57L	—	—	—	D6(Jun)	D7
76LL	—	—	—	D5(Sep)	D6

8.2 ELITE: Increase the Depletion Number of an armed-vehicle/weapon by one for Elite forces. An armed-vehicle/weapon in a printed scenario is Elite for this purpose if so specified by an SSR or if the historical formation to which it belongs is either SS or Russian Guards. For DYO scenarios a force is considered Elite only if the Majority Squad Type of its side's total OB is Elite.

8.3 HEAT (H): HEAT[20] is available to the Germans starting in May 1942, and to the U.S., Britain, and Russia starting in 1943. SCW also fire HEAT, but without use of a Depletion Number (availability of rounds has been factored into their X#). SCW HEAT has the same effects as other HEAT rounds.

8.31 HE EQUIVALENCY: The explosive force of HEAT was considerable and, although less than HE, could still have a devastating effect on exposed personnel. Therefore, all HEAT ammunition (whether used by SCW or ordnance) has an HE Equivalency FP which is used against Personnel targets or for Collateral Attack and rubble/fire determination purposes. HEAT may only be fired at a vehicle or Gun, or at Infantry/Cavalry receiving a wall/building/rubble/pillbox TEM. AP is also given HE Equivalency for normal A-P use, as well as for Collateral Attacks. However, AP/APCR/APDS/ATR attacks never leave Residual FP.[21]

AP[1]		HEAT			
			PSK/PFk[4]/		
< 37mm[2]	≥ 37mm	BAZ/PIAT	H#[9][3 4]	PF[4]	Other Ordnance
1	2	8	12	16	Use IFT column to the left of Gun's normal HE FP

[1]: No AP-type attack can leave Residual FP. ATR can use AP HE Equivalency only if it is 20mm.

[2]: Includes all APCR/APDS/ATR, but not MG (including 12.7 and 15mm).

[3]: As used by German 37mm AT and AA Guns.

[4]: PF/PFk/H#[9] cannot leave Residual FP.

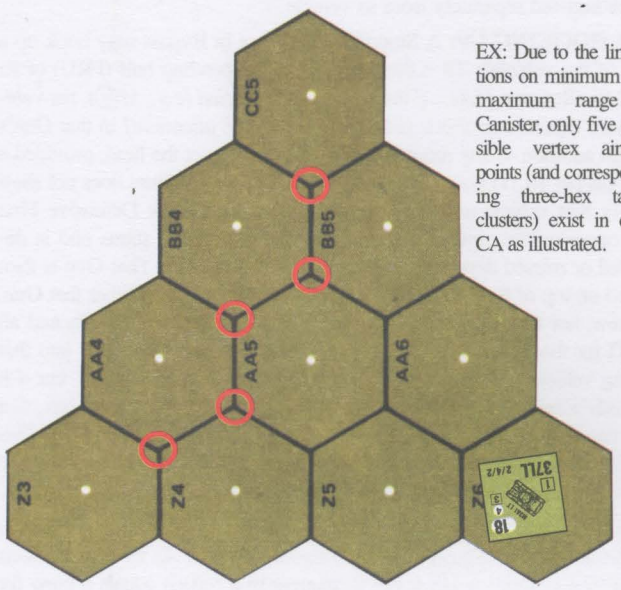
8.4 CANISTER (C): Canister[22] is ineffective vs armored targets (but not their Vulnerable PRC). A To Hit DR is not required for Canister, but if the AFV is using Bounding (First) Fire and/or is in-Motion/Non-Stopped (or if Infantry move to and man a Gun during the MPh and then fire Canister in the AFPh), or Intensive Fire is used, or the attack is against HIP/"?" units, the FP of the Canister is halved as Area Fire (or quartered if both Motion and Bounding Fire penalties apply). Canister is resolved on the IFT using its FP and adding any applicable DRM for TEM, LOS Hindrance, and/or hexspine changes in the CA. See the table below for the correct FP value of each Canister type. The IFT DR also serves as the Ammo Depletion, armament breakdown, and ROF checks usually resolved with the To Hit DR. If the Canister Depletion Number has been exceeded, 8.9 applies. Canister is fired at a common vertex and elevation shared by three hexes which is two hexsides distant (excluding the firing hex) and, barring obstacles in the first hex of the cluster, affects all occupants of all hexes at that elevation (and in the firer's LOS) although LOS Hindrances and the individual TEM of each Location may vary the results in each hex. LOS to the vertex aiming point is not required. If the firer has LOS to both the vertex aiming point and a Known enemy unit in one of the three hexes, then (only) vulnerable units in the other two Locations which are out of LOS due solely to SMOKE/LV Hindrances or NVR are attacked with halved FP (halved again if they are HIP/"?", etc.). Instead of firing at a vertex,

© 2000 Multi-Man Publishing, LLC

Canister can also be used to fire at any three contiguous levels of a building hex by firing at the middle level, provided it is two hexes away.

Canister FP IFT Equivalency Table

Gun Size	IFT FP
37mm	12
75mm	20
105mm	24



EX: Due to the limitations on minimum and maximum range of Canister, only five possible vertex aiming points (and corresponding three-hex target clusters) exist in each CA as illustrated.

8.41 Canister has no effect on units in the firer's hex, but if firing at a same-level target, it attacks units in the hex adjacent to the firer along the LOS as Area Fire with no doubling for PBF. If the LOS in the adjacent hex is traced exactly along a hexside, the fire affects both adjacent hexes but is quartered instead of halved.

8.42 Canister cannot be used to rubble a building, set a Fire, or clear Wire. A Canister KIA result has the same chance of destroying a SW in the hex as an HE KIA result.

8.5 SMOKE (s): Smoke[23] may be placed by ordnance/OBA only at the *start* of the owner's PFPh/DFPh. Once any unit fires anything other than SMOKE during that PFPh/DFPh, no SMOKE may be fired during that PFPh/DFPh. Smoke is treated as a two level Hindrance to LOS and does not Hinder firing, Observing, or Spotting occurring above that elevation; smoke from both artillery and smoke grenades falls into this category. SMOKE does not block LOS *[EXC: B.10]*; it only Hinders it. See A24 for further effects of SMOKE.

8.51 Due to the timed effects of smoke rounds, such ammunition may be fired with full effect by Ordnance/OBA only in the PFPh, prior to all other non-smoke placement Prep Fire. Such smoke fired in any other phase is placed as white Dispersed smoke.[24]

8.52 SMOKE ammunition is always placed at ground level in any target hex which is hit on the Area Target Type, except Interior Building hexes, even if the only visible part of that hex is the upper level of a building. A Gun cannot place SMOKE in its own hex, although some AFV may place smoke in their own hex without their Gun (D13).

8.6 WHITE PHOSPHORUS (WP):[25] Unlike Smoke, WP may be fired by ordnance during (but prior to any friendly unit firing anything other than SMOKE) any friendly fire phase—not just the PFPh/DFPh—although placement in other than the PFPh results in Dispersed WP (see A24.5). See 1.71 and A24.31-.32 for further effects.

8.7 ILLUMINATING ROUNDS (IR): Many Indirect Fire weapons were capable of firing carrier rounds containing flares on parachutes for illuminating the battlefield. These weapons do not have a Depletion Number for IR, the use of which is described in E1.93.

8.8 AP/HE LIMITED STOWAGE: Due to their specialized role, some AFV types carried limited amounts of AP or HE ammunition, because it was deemed more expedient to carry more rounds of AP for use vs armored targets (Tank Destroyers), or HE for use vs non-armored targets (Assault Guns). Such AFV types have a Depletion Number (in the form "AP#" or "HE#") listed on the back of their counter for usage of the ammunition type in limited supply.

8.9 DEPLETION NUMBERS: The number following each special ammunition symbol is a Depletion Number which defines its availability to the firer. This Depletion Number is applicable if the firer announces his intention to use Special Ammunition prior to a To Hit DR. If that Original To Hit DR is < the Depletion Number, the firer uses that ammunition to resolve the effect of any hit it achieved with that DR. If that Original To Hit DR equals the Depletion Number, the firer uses that ammunition to resolve the effect of any hit it achieved with that DR, but the firer runs out of that Special Ammunition in the process and may not use it again for the remainder of the scenario. If that Original To Hit DR is > the Depletion Number, the firer had no such ammunition and is considered not to have fired yet for any purpose unless Gun Malfunction or Low Ammo (D3.71) occurs. The firer is free to fire again (unless it malfunctioned) with other ammunition at the same or different target with a new To Hit DR or refrain from firing altogether and instead move. The Gun may not use that special ammunition again in that scenario. Depletion Numbers do not apply to OBA or Vehicular Smoke Dispensers.

8.91 If more than one Depletion Number is listed on a counter for a Gun's particular Ammunition type, the first number is for the first year of availability, and the exponent following it is the last digit of that year; the next number is for the next year of availability, and so on.

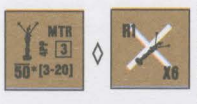
EX: The T34-85 has an APCR rating of A5[4]/6[5], so its Depletion Number is 5 in any scenario taking place in 1944, and 6 in any scenario taking place in 1945.

8.92 Intensive Fire does not change Depletion Numbers.

9. MORTARS



9.1 Mortars are Direct Fire ordnance but are treated as Indirect Fire weapons for fire resolution purposes; i.e., although they must make To Hit DR, the IFT effects of those hits are resolved using Indirect Fire principles and modifiers. Due to their high trajectory, mortars always use the Area Target Type (3.33) and consequently never use the To Kill Tables to resolve any hits vs vehicles. Instead, Indirect Fire hits vs vehicles are resolved on the IFT as per 1.55. Mortar Fire is never resolved as Direct Fire—even if the mortar is in LOS of the target. See 9.2 and 10.1 for special movement capabilities allowed to 76-107mm mortars.



9.2 LIGHT MORTARS: A mortar is classified as either a Gun or a SW depending on size. Any mortar ≤ 60mm is a light mortar and is treated as a SW because it is on a ½" counter. As a SW, a light mortar has no CA and thus does not have to suffer To Hit DRM for fire outside its CA. A light mortar can be fired by any squad/HS like a normal SW with no detriment (i.e., it does not require a crew to be fired with full efficiency) and normal leadership To Hit modification. Should a lone SMC fire a light mortar, it loses its Multiple ROF. Otherwise, use of a light mortar is as specified on the SW Chart. Even though a light mortar is a SW, it can use Area Target Acquisition (6.521), losing it as if a Gun. A 76-82mm mortar can be dismantled (A9.8) and is then represented by a ½" counter in its dm state, which allows it to be portaged as a five PP SW rather than being subject to normal Gun Movement rules.

© 2000 Multi-Man Publishing, LLC



9.3 SPOTTERS: A mortar is the only on-board weapon which may be fired against a target which is not in its LOS. One Good Order Personnel unit in the same or an adjacent hex to a mortar (regardless of vertical level distance and LOS) can be a Spotter (Δ) for any mortar(s) in one hex (be it the same or an adjacent hex), provided they all fire on the same target. Otherwise, each mortar must have its own Spotter. Spotting is considered the equivalent of using a SW for purposes of movement curtailment and inherent FP loss; the Spotter must be predesignated by the owning player during his PFPh/DFPh and marked with an appropriate fire counter for having used a SW during that phase. If the Spotter is hidden, it must be recorded as a Spotter. As long as the Spotter remains in Good Order, the adjacent mortar(s) may fire on any target in the Spotter's LOS. Any LOS Hindrance DRM that affects the Spotter's LOS (or the crew in the absence of a Spotter) is applied to the mortar's To Hit DR. A pinned Spotter in effect pins the mortar crew for attacks Spotted by that Spotter. A new Spotter may not be designated until the original Spotter is eliminated, broken, or captured—and not until the start of the owner's MPh following such a loss of the original Spotter *[EXC: if a Spotting squad is Reduced, its surviving Good Order HS retains Spotting ability. A mortar cannot be designated for Opportunity Fire if it has no Spotter (9.3) and its intended target is out of its LOS. A mortar designated for Opportunity Fire but not able to fire in the AFPh due to no Spotter and no target in its LOS must still roll for breakdown purposes (as per A6.11)]*.

9.31 SPOTTED FIRE: Spotted fire is not as effective as fire which is actually observed by the men manning the mortar. Spotted fire is subject to a +2 To Hit DRM and a reduction of the mortar's Multiple ROF by one. If the mortar has no Multiple ROF the latter penalty does not apply.

EX: A leader stacked with a Spotter may not modify a mortar's To Hit DR, but one stacked with another unit firing a SW mortar may modify one mortar's To Hit DR. A unit may Spot for more than one mortar in a Player Turn only if the mortars are all in the same Location and firing at the same target. A squad may attack with its inherent FP and spot for ≥ 1 mortar but will lose any acquisition gained with the mortars when it does so attack.

9.4 MINIMUM RANGE: Mortars are unique in that they may not fire at targets closer than their minimum range, as printed on their counter in brackets in the form "[#-#]" with the first number being its minimum range and the second number its maximum range.

9.5 CH: A mortar generates a CH only on an Original To Hit DR of 2 (as per 3.7). However, instead of halving the FP of a mortar for a hit on the Area Target Type, that fire is instead doubled for a CH and further modified as per 3.71-.72.

EX: A 76mm mortar fires at a target hex 18 hexes away containing a stationary CE PzKpfw IVF$_2$ tank and a broken 4-6-7 Infantry squad in Open Ground. The Modified TH# is 7, but because the LOS to the target hex from the crew (which is doing its own spotting) is Hindered by a wreck and a brush hex there is a +2 DRM to the To Hit DR. The Original To Hit DR is a 2, thus resulting in a CH. Random Selection determines that the CH occurred vs the tank; therefore the FP of the mortar is doubled to 24 vs the tank, resulting in a kill on an IFT DR ≤ 4, or an Immobilization or Shock result (depending on location of the hit) on an IFT DR of 5 or 6. The IFT DR is a 6 (colored 2, white 4) resulting in Shock. The 6 DR is also used vs the broken 4-6-7 but, because there was no CH vs the squad, the 6 FP column is used (Area Target Type fire is halved; 3.74) and a +1 TEM is added for the AFV, resulting in a NMC.

10. GUN & AMMO MOVEMENT

10.1 TOWING: A vehicle allowed to tow a Gun has a Towing Number printed on its counter in the form "T#". A vehicle's T# must be ≤ a Gun's M# (see 10.3) in order for that vehicle to be able to tow that Gun. A vehicle towing a Gun pays one extra MP (MF for wagons) per hex entered (added after all other modifications to the MP/MF cost). No vehicle may tow a Gun over a wall or hedge or into a building/rubble. A Gun may not fire while in tow (i.e., while "hooked up"). A vehicle may not use Reverse or Bypass Movement *[EXC: Narrow Streets; B31.124]* or enter a Deep Stream while towing a Gun. *[EXC: The +1 per hex MP/MF cost, as well as the Reverse/Bypass/wall/hedge/rubble/stream towing restrictions, do not apply to the vehicular transport of a $^5/_8$" 76-107mm MTR counter; however, all other rules pertinent to Gun towing/pushing do apply to these MTR when they are not dm and they may only be unloaded by a Passenger on the same vehicle.]*[26] When a vehicle with a Gun in tow is destroyed, so is the Gun. A Gun in tow cannot be targeted separately from its vehicle.

10.11 HOOKING UP: A Stopped vehicle not in Bypass may hook up a Gun (if the vehicle's T# ≤ the Gun's M#) by spending half (FRU) of its MP/MF allotment *[EXC: if the Gun's M# is circled (e.g., M⑥), the vehicle must expend two-thirds (FRU) of its MP/MF allotment]* in that Gun's hex (in addition to any required MP/MF cost to enter the hex), provided a crew (as per 10.111) is on foot in that hex. This expenditure does not itself qualify that vehicle as a moving target, but does allow Defensive First Fire opportunities against it (that Gun shares its target status and is destroyed or missed depending on the fate of the vehicle). That Gun is then placed on top of that vehicle to indicate that it is in tow. Neither that Gun, its crew, nor that vehicle/its PRC can fire during that PFPh/MPh and all are TI for the rest of that Player Turn. That crew may also load into that towing vehicle at no extra MP/MF cost as it hooks up that Gun, but if it expends > half its MF allotment in pushing/entering that Gun's hex, that Gun cannot then be hooked up by that unit in that MPh. A non-QSU Gun (10.23) must first be limbered (10.21) before it can be hooked up. See 10.31 for pushing and hooking up a Gun in the same MPh.

10.111 A crew must be in Good Order and unpinned in order to (un)hook/(un)limber/push a Gun it possesses. See D5.43 for attack effects while (un)hooking. A HS (even if inherent in a squad) equals a crew for such purposes, but it takes five SMC to equal a crew for such purposes.

10.12 UNHOOKING: A Stopped vehicle not in Bypass may unhook a Gun only by spending half (FRU) of its MP/MF allotment *[EXC: if the Gun's M# is circled (e.g., M⑥), the vehicle must expend two-thirds (FRU) of its MP/MF allotment]* under the otherwise same conditions as were necessary for hooking up (10.11). That Gun's crew may disembark from that vehicle at no extra MP/MF cost as part of that unhooking procedure, but that crew and Gun must remain TI in that hex *[EXC: that vehicle may expend its remaining MP/MF]*. After being unhooked, certain Guns must still be unlimbered (10.21) before they can be fired. Neither the crew nor the vehicle/PRC may fire during that PFPh/MPh prior to unhooking. A Gun's CA may be changed simultaneously as it is (un)hooked.

10.13 AMMO PP REDUCTION: The usable Passenger PP capacity of a vehicle with a hooked up Gun (or a dm 76-82mm mortar) is considered reduced by four PP—or by eight PP if the Gun being towed is ≥ 100mm—due to the bulk of the ammunition. If this reduces an *empty* vehicle's PP to ≤ 0, no extra penalty is incurred beyond the loss of its entire Passenger PP capacity; i.e., an empty vehicle whose T# is ≤ a Gun's M# can still tow that Gun even if doing so would reduce it to ≤ 0 PP, but it would then not be able to also carry that Gun's crew or anything else that would reduce that PP capacity. If the vehicle is not empty, the Gun could not be hooked up or towed if doing so would reduce its Passenger capacity to < 0. Otherwise, if PP are retained, they may be used normally. A dm 76-82mm mortar lowers a vehicle's Passenger PP capacity by only four PP (not nine PP for the ammo and dm mortar).

EX: An SPW 250/1 (with 9 PP and T9) can tow any Gun whose M# is ≥ 9. When hooking up a 75* RCL (with M11) its PP capacity is reduced to five PP, so it can also load the Gun's crew. When hooking up a 105* RCL (with M10) however, its PP capacity is reduced to one PP, so it cannot also carry the crew. If the vehicle already contained two PP in SW, it could not hook up or tow the 105* RCL, but it could tow the 75* RCL with three PP remaining—not enough to also carry the 75* RCL's crew.

10.2 (UN)LIMBERING: Any Gun not indicated as having QSU (10.23) must be limbered before it can be pushed, towed, or hooked up *[EXC: Guns with NM (10.26) or RFNM (10.25)]*.

© 2000 Multi-Man Publishing, LLC

R1 Gun Malfunction X6

10.21 To limber such a Gun, invert it to its limbered side. Limbering is accomplished by the Gun's crew (as per 10.111) during any fire phase in which the crew could otherwise fire the Gun (excluding Breakdown as a factor), although neither may fire in the Player Turn of (un)limbering. A limbered Gun cannot fire *[EXC: LF Guns; 10.24]*, nor can it be unlimbered while in tow. Unlimbering is the inverting of the Gun to its normal firing side within the same restrictions. Guns with a Limbered reverse side require Malfunction counters to mark their status when suffering such a result. A Malfunctioned Gun can be (un)limbered, and can be repaired while limbered.

10.22 A crew (as per 10.111) may (un)limber a Gun and change its CA simultaneously. A TI counter is placed on that MMC and Gun after it has unlimbered (but not when it has limbered).

10.23 QUICK SET-UP (QSU): A Gun with QSU printed on its counter can never be (un)limbered; i.e., such a Gun is never subject to the provisions of 10.2-.22 and can be (un)hooked in its normal state.

EX: HOOKING UP PROCEDURE:

FRIENDLY PFPh: Crew limbers Gun if not QSU. Neither Gun, crew, nor vehicle/PRC may fire (but are not TI).

SUCCEEDING FRIENDLY MPh: Vehicle/Gun enters other's hex (if not already there) and Gun is hooked up (10.11). The Stopped vehicle expended half of its MP/MF allotment (or two-thirds if gun has M(#)) plus any hex entry cost to do so. The Gun, crew, and vehicle become TI.

NEXT FRIENDLY MPh: Vehicle may drive away with Gun in tow.

EX: UNHOOKING PROCEDURE:

FRIENDLY MPh: Vehicle towing Gun enters new hex, paying hex entry cost (plus one MP/MF; 10.1) to do so and stops. The Gun is unhooked into its present hex, provided neither the vehicle nor any PRC has fired (10.12), and the vehicle can expend half its MP/MF allotment (or two-thirds if Gun has M(#)). If unhooked, Gun and crew are TI; vehicle may exit hex, and may fire if otherwise able to.

NEXT FRIENDLY DFPh: Crew unlimbers Gun if not QSU, and both become TI. If Gun is QSU, it may instead fire.

10.24 LIMBERED FIRE (LF): Certain Guns may fire while limbered, and are indicated by having a Gun Caliber Size, ROF, etc. on the limbered side of the counter. Limbered Fire is not allowed while a Gun is in tow; it must first be unhooked. LF Guns often suffer penalties to their performance in terms of changes in their Barrel Length, 360° Mount, B#, or ROF ratings; such ratings are printed directly on the limbered side of their counter (see 2.21).

10.25 RESTRICTED FIRE, NO MOVEMENT (RFNM): A Gun listed as RFNM may not (un)limber; i.e., it cannot be unlimbered if in tow at scenario start, and cannot be limbered or pushed if in firing mode at scenario start. Furthermore, it may not use To Hit Cases A (i.e., it cannot change its CA), E (i.e., it cannot fire if a Known enemy unit occupies its own hex), J[4], or L (it can fire at one or two hex range but does not receive this DRM), and any use of Case J is always doubled at ≤ six hexes.[27]

10.26 NO MOVEMENT (NM): A Gun listed as NM may change CA normally, but may not (un)limber; i.e., it cannot be unlimbered if in tow at scenario start, and cannot be limbered or pushed if in firing mode at scenario start.

10.3 PUSHING: A limbered or QSU Gun *[EXC: if having NM or RFNM]* can conceivably be pushed (and simultaneously have its CA changed) during the MPh by a Good Order crew (as per 10.111) at double its normal MF cost, provided it makes a Final DR ≤ its M#/M(#) for each hex it attempts to enter. Pushing a Gun (i.e., making a Manhandling DR) is Hazardous Movement, prevents Assault Movement, and cannot be attempted while carrying PP, or moving beneath a Wire/Panji counter, or attempting a Minimum Move. Double Time can be used, but the road bonus MF (B3.4) cannot. A Gun cannot be pushed INTO a deep stream or into Bamboo (G3.2) *[EXC: via TB]*. A Gun cannot be pushed using Bypass, nor can it be hooked up to or unhooked from a vehicle in Bypass. If the Final Manhandling DR is > the M#, neither the Gun nor any pushing unit(s) can be moved farther during that MPh but the pushing unit(s) receives a -1 Labor counter for use in its next attempt. If the Final Manhandling DR equals the M#, the Gun and pushing unit(s) can enter that hex but cannot be moved any farther during that MPh. If the Final Manhandling DR is < the M#, the Gun can enter that hex and either attempt to be pushed another hex or can be hooked up (see 10.31), provided all the Infantry which has engaged in pushing during that Player Turn have sufficient MF left to expend in that hex. In all three cases, the Gun and its pushing Infantry become TI for the rest of that Player Turn when their pushing/hooking up has ended. These rules do not apply to SW portage. See B23.423, B23.85, B23.93 and 2.7 for pushing Guns into a building (B30.45 for pillbox). A Gun may not be pushed during the same Player Turn in which it is unhooked. The following cumulative DRM apply to the Manhandling DR:

C10.3 MANHANDLING DRM:

+X	*X is positive TEM of hexside crossed plus that of hex entered
+Y	Y is pushing unit's MF expenditure for hex entered
+3	Pushing into/from a mud or deep snow hex
-1	Per additional pushing crew/HS up to a maximum of -4 (-2 per additional squad, -1 if only pushing MMC is squad); such units also become TI
-2	Crossing a road hexside (B3.4 is NA) unless into/from mud/deep snow unless paved/plowed
-2	Low Ammo counter (D3.71) is placed on Gun prior to DR.
-1 or -2	Per Labor Status (B24.8)

M DR > M#: NA M DR = M#: Stop
M DR < M#: Continued Movement Allowed
*LOS Hindrance, HA, FFMO/FFNAM DRM NA.

EX: A crew attempts to push a 37L AT Gun into a stone building from Open Ground (1H4 to G4). It needs an Original Manhandling DR ≤ 5. Its M# is 12 with +7 DRM (+3 [TEM of hex entered] +4 [MF of hex entered]).

10.31 A Gun can be pushed and then hooked up during the same MPh, but only if its pushing Infantry can still attempt to push that Gun another hex in that MPh (i.e., can attempt another Manhandling DR), and only if the vehicle has not yet exceeded the specified MP/MF expenditure for hooking up (10.11). No Manhandling DR is actually required for hooking up or unhooking.

10.4 TRAILERS: A vehicle towing a trailer may traverse any terrain permitted were it not towing the trailer *[EXC: it may not enter a building/rubble, nor may it use Reverse Movement or cross an unbreached wall/hedge]*.

10.41 For To Hit purposes, a trailer (not a towed Gun) may be targeted separately with a +3 size modifier if the towing vehicle presents a side Target Facing to the firer. Any rear Target Facing hull hit is considered to have struck the trailer instead of the vehicle. A trailer cannot be hit by Direct Fire through the towing vehicle's front Target Facing, nor if it is HD to the firer. Otherwise, if a hit is missed by one, the trailer is considered hit on a subsequent dr of 1. The trailer hit possibility is determined before any accidental hits vs overstacked vehicles (A5.132) can be scored. All other To Hit DRM apply normally. Indirect Fire and non-ordnance do not attack the trailer separately; i.e., the trailer shares the fate of the vehicle as per 10.1. If a trailer becomes immobilized its towing vehicle must stop (or remove its Motion counter) and disconnect it before it can expend a start MP. Trailer hits do not cause Collateral Attacks, and a trailer never leaves a wreck when it (not the vehicle) is destroyed. Check the towing vehicle's Vehicle Listing Notes in Chapter H for further information.

10.5 EN PORTEE: Some German, British, Italian, and French Guns may be carried *en portee*, which means they may be loaded onto a vehicle (during setup/play) and carried as Passenger PP. The applicable Ordnance Notes will describe exactly which Guns can be porteed by which vehicles during which periods. Prior to setup the appropriate vehicle

© 2000 Multi-Man Publishing, LLC

must be noted on a side record as being able to portee a Gun of that particular Caliber Size and Barrel Length. As a passenger, the Gun and its ammo together use all but 5PP of the vehicle's Passenger capacity. A vehicle may not simultaneously have one Gun en portee and another hooked up for towing.

10.51 (UN)LOADING: A Gun can be (un)loaded only after a *crew* counter has spent its entire MF allotment as unpinned, non-entrenched Good Order Infantry in the Location of the Gun and a non-Bypass vehicle in a declared attempt (which makes it subject to Hazardous Movement) to do so. A non-QSU Gun (un)loads in Limbered mode. When a Gun has been thusly loaded it is marked with an En Portee counter, and once (un)loaded the crew and vehicle become TI. A Gun may not be (un)loaded to/from a vehicle that has expended any MP in the same MPh.

10.52 WRECK: A vehicle porteeing a Gun is not flipped over to its wreck side if it becomes Immobilized, and the Gun may be unloaded (at which time the vehicle counter is flipped over). If a vehicle porteeing a Gun is eliminated, the Gun is eliminated too.

10.53 CA & GUNSHIELDS: When loaded on the vehicle, the Gun's CA must coincide with either the VCA or "rear" VCA and may not change relative to that VCA while being porteed *[EXC: some Guns are restricted by their Note to only the VCA or "rear" VCA]*. An AT (with a Gunshield) being porteed provides no protection to the vehicle, but Direct (only) Fire attacks vs it which emanate from within the Gun's CA and which do not destroy the vehicle, affect the Passengers as if they were manning a non-Emplaced, non-vehicular AT.

10.54 PORTEE FIRE: Certain Guns (see applicable Ordnance Notes) may be fired by their Passenger crew while being porteed *[EXC: Bounding (First) Fire and Motion Fire are NA]*. Mounted Fire penalties (D6.72) are NA.

11. GUNS AS TARGETS

11.1 NEAR MISS: Any "hit" vs a Gun usually represents a Near Miss close enough to affect the crew.[28] A hit which actually strikes the Gun is termed a Direct Hit (11.4).

11.2 EMPLACEMENT: The To Hit procedure vs a Gun which has not been hooked up and which has not been moved since the start of the scenario (11.3) can be resolved in either of two ways at the firer's option. An Emplaced Gun can be fired on using the Area Target Type (the Gun's Target Size [2.271] is a To Hit DRM unless inside a pillbox/cave; B30.32 and G11.83) with a +2 TEM (once hit) for being Emplaced; or it can be fired on using the Infantry Target Type, with the +2 Emplacement TEM and the Gun's Target Size used as a combined To Hit DRM. For OBA or other FP attacks, the +2 Emplacement TEM applies on the IFT *[EXC: FT; A22.2]*. In all cases, however, the Emplacement TEM cannot be used in addition to any other positive TEM; the Gun's owner may choose one or the other, but not both. There can possibly be different To Hit Numbers for units in the same hex. A Gun can never be Emplaced on a paved road, bridge, runway, Rooftop, or in Bamboo and does not receive the +2 TEM while manned by a squad.

EX: Using the Infantry Target Type, a CE PzKpfw IVH Prep Fires at a 57mm AT Gun six hexes away in a 2+3+5 pillbox that is in its LOS through the pillbox CA. The Modified TH# is 8, but there is a +3 To Hit DRM for Case Q (since the +2 Emplacement TEM would be less beneficial to its defense).

EX: A CE PzKpfw IVH Prep Fires on a hex containing an entrenched squad, an emplaced 45mm AT Gun, and another non-emplaced 45mm AT Gun in an Open Ground hex six hexes away on the Infantry Target Type. The Modified TH# is 8 but there is a +1 DRM for the non-Emplaced Gun (Target Size), a +2 DRM for the entrenched squad (foxhole), and a +3 DRM for the Emplaced Gun (Target Size and Emplacement). So the tank will hit the non-Emplaced Gun with an Original To Hit DR ≤ 7, or the squad *and* the non-Emplaced Gun with an Original DR ≤ 6, or all three targets with an Original To Hit DR ≤ 5.

11.3 If a Gun starts a scenario hooked up or is manned by a non-crew unit, moves, or its manning Infantry voluntarily forfeits Wall Advantage (B9.322) it loses the "Emplaced" To Hit DRM of Case Q. Once lost, a Gun may not regain Emplaced status during that scenario. A Gun's Emplacement TEM ceases to exist when that Gun is removed from play.

EX: A CE PzKpfw IVH fires during its DFPh at a 57mm AT Gun in its TCA which has just been pushed into a woods hex six hexes away. The Modified TH# is 8 and there is no DRM to the To Hit DR (+1 [Case P; Target Size] +1 [Case Q; TEM] -2 [Case O; Hazardous Movement] = 0 To Hit DRM).

11.4 DIRECT HIT: Once a hit is secured (or in the case of OBA/DC attacks which do not need hits), the firer rolls on the IFT to determine the effects on the crew and Gun. If the Final DR (prior to any gunshield DRM) results in a KIA vs the Gun (after any necessary Random Selection), the Gun is considered to have taken a Direct Hit and is destroyed along with its manning Infantry. A K result is also considered a Direct Hit, although it does not actually strike the Gun; rather it causes the Gun to malfunction and causes Casualty Reduction to its manning Infantry *[EXC: if AP was fired; 11.52]*. Gunshield DRM never apply to a Direct Hit. If the IFT DR does not result in a Direct Hit, the hit is considered a Near Miss and the +2 DRM for any gunshield is applied (if applicable) to the same DR to determine the effect (if any) on the manning Infantry. Even unattended Guns must check for elimination. Gunshield modifiers are lowered by one to +1 vs all forms of Indirect Fire. A CH automatically destroys both the Gun and its manning Infantry.

11.5 GUNSHIELDS: All AT and INF Guns have gunshields which help protect their manning crew.[29] A gunshield helps protect the Good Order manning crew (only) of a Gun from most attacks which originate within its current CA. Other Infantry in the same hex, even if serving as an ad hoc crew, receive no benefit from the gunshield. Infantry moving to a Gun or pushing it while being attacked by Defensive First Fire is not entitled to any protective DRM from its gunshield, nor is manning Infantry attacked by any means from the Gun's own hex ever entitled to protective DRM from its gunshield. A manning crew protected by a gunshield may add +2 to the IFT DR of fire vs that manning crew *[EXC: +0 for FT (A22.2) and +1 for Indirect Fire (11.4)]*. The gunshield DRM is never cumulative with that of positive TEM; the target has its choice of accepting either the gunshield DRM (if applicable) or the positive TEM of the terrain (including Emplacement; 11.2) in that Location. A gunshield does not have to be penetrated for HE fire to affect the Gun/its-crew, and protects the Gun and such Infantry from ordnance hits only insomuch as the application of the gunshield modifier to the IFT DR of all Near Miss hits may lessen any MC level sustained. A gunshield DRM never affects a To Hit DR, but can be used to modify the effects of a Near Miss Hit even if a TEM was already used to modify the To Hit attempt.

EX: Continuing the second 11.2 EX, the PzKpfw IVH hits all three targets with an Original To Hit DR of 5. The AFV's 75mm MA attacks all three on the 12 FP column of the IFT. An Original IFT DR of 6 would (if unmodified) result in a 2MC, qualifying as a Near Miss vs the AT Guns. If the attack originated within the CA of the Guns and the Guns were manned by *crews*, they would each receive a +2 DRM to the IFT DRM due to their gunshields, changing the 2MC result to a 1MC. An Original IFT DR of 3 on the 12 FP column results in a K/3, which (depending upon Random Selection) may result in a Direct Hit vs ≥ 1 Gun, eliminating any affected crews; any of Guns not selected for the K result will receive the +2 gunshield DRM, changing the 3MC to a 2MC. (If the result had been a 1KIA instead, all units not selected for the KIA result would be broken.) An 8-3-8 squad attacking both crewed Guns through their CA at normal range attacks on the 8 FP column. The non-emplaced Gun receives a +2 gunshield DRM regardless of the Original IFT DRM since Infantry fire cannot secure a Direct Hit; the emplaced Gun receives either the +2 Emplacement TEM or the +2 gunshield DRM.

11.51 HEAT destroys a Gun using the same mechanics as an HE hit, except that it uses HE Equivalency (8.31). A FT/MOL attack destroys a Gun using Random SW Destruction (A9.74) but is slightly more effective than MG/Small Arms Fire because gunshields never modify a FT attack or a FG which includes only units attacking from outside the Gun's CA and/or using MOL.

© 2000 Multi-Man Publishing, LLC

11.52 AP: AP/APCR/APDS/ATR hits vs a Gun are resolved using the same mechanics as HE hits, but using HE Equivalency (8.31). The Gun and any manning Infantry are destroyed by a CH/any K/KIA result. A MG attacking alone, an ATR attacking as Small Arms, or an ATR/MG attacking as part of a FG, may cause Gun Destruction only as per A9.74.

11.6 GUN DESTRUCTION TABLE: The above rules for Gun Destruction are summarized on the Table below.

GUN DESTRUCTION TABLE[1]

	Ordnance/ Bomb/OBA	MG/IFE/Small Arms/ FT[2]/MOL[2]/OVR	DC
≤ Final[4] KIA	Elim[3]	Random SW/Gun Dest	Elim
= Final[4] K	Malf-CR[5]	NA	Malf-CR
= CH	Elim	NA	NA

Elim: Gun and manning Infantry are eliminated.

Malf-CR: Gun is malfunctioned; manning Infantry suffers Casualty Reduction.

Random SW/Gun Dest: Check for Random SW/Gun Destruction (A9.74)

[1] If in tow or being (un)hooked, a Gun can only be destroyed if its vehicle is (C10.1-.12).

[2] Gunshield is NA to FT/MOL-"only" attack (11.51).

[3] If there are Personnel in the Location, unpossessed Guns check for Random SW/Gun Destruction if KIA achieved via Indirect Fire.

[4] Prior to applying Gunshield DRM (11.4).

[5] K result = Elim if AP was fired (11.52).

12. RECOILLESS RIFLES (RCL)



12.1 GERMAN/U.S.: German RCL were more like ART than SW. RCL do not have gunshields (gunshields were optional on German RCL, but were small and of little protection to the crew which had to stand away from the weapon at the moment it was fired). U.S. RCL are treated as SW although they too use the C3 To Hit Table.

12.2 RCL are crew-served and fire HE as their main ammunition. U.S. RCL were intended for more widespread distribution as Infantry SW, but their late introduction restricted their use to specially trained teams. Any friendly squad/HS using a RCL does so with captured weapon penalties (A21.13).

12.21 Two SMC may fire a RCL of their own nationality without penalty if they direct no other fire during that Player Turn, but leadership DRM never apply when firing a RCL.

12.22 A RCL uses the To Hit Table but To Hit Case A applies only to German RCL. The U.S. 57mm RCL may fire during the AFPh even after it or its crew moves in the MPh by adding the +2 To Hit DRM for LATW firing in the AFPh (Case C[3]). A RCL (and the unit firing it) can never retain concealment when it fires in the LOS of a Good Order enemy ground unit.

12.23 A RCL may never fire from inside an Emplacement, building, rubble, entrenchment, pillbox, or vehicle *[EXC: the US 57mm RCL may fire as per 13.8].*

12.24 A RCL cannot acquire a moving (C.8) target or use previous acquisition against it. Only German RCL may Bore Sight.

12.3 BACKBLAST ZONE: The backblast zone of a RCL consists of the firing hex and all Locations within one level of the RCL in the hex or hexes immediately behind it in the opposite direction of the LOF. This zone is determined by extending the LOS of the firing weapon backward through the firing hex a distance of one hex. If this backward extension of the LOS lies exactly along a hexspine of the firing hex (such that it forms a hexside between two adjacent hexes) then both of those adjacent hexes are considered part of the backblast zone.

12.31 Any unarmored friendly/Melee unit in the backblast of a RCL when it fires, other than the manning Infantry which fired it, is TI for the remainder of that Player Turn. If those units have already fired or moved during that Player Turn they undergo attack on the 1 FP column of the IFT using the colored dr of the RCL's To Hit DR as an IFT DR. No drm apply.

12.4 Any time a RCL rolls an Original 11 on its To Hit DR there is a chance that the backblast will start a Flame in the backblast zone of the weapon. If the backblast zone contains Burnable Terrain, each hex must be rolled for separately on the Kindling Table (with applicable EC DRM) to determine if a Flame results.

13. LIGHT ANTI-TANK WEAPONS (LATW)

13.1 LATW: The term LATW includes all ordnance weapons represented by SW-size counters whose main use is against armor. LATW include ATR, ATMM, Bazooka, PIAT, Mol-Projector, PF/PFk, and PSK. All LATW ordnance must first secure a hit vs armor on the appropriate To Hit Table (C3) before resolving that hit on the applicable To Kill Table. All Firer and Target Hit Determination DRM applicable to LATW are listed on the To Hit Table and marked with a red "L". However, all LATW firing during the AFPh *[EXC: Opportunity Fire]* are subject to a +2 To Hit DRM (Case C[3]). LATW may never use the Area Target Type.



13.2 ANTI-TANK RIFLE (ATR): An ATR is a SW which uses the C3 To Hit Table and the C7.31 AP To Kill Table to resolve its hits.[30] An ATR counter's To Hit attempt uses the black Basic TH# regardless of nationality distinctions, unless it is a captured weapon.

13.21 USAGE: Any unbroken Infantry unit can use an ATR but such use constitutes use of a SW (A7.35).

13.22 RANGE: An ATR has a maximum range of 12 hexes. The Basic TK# of an ATR hit is modified by range according to the " ≤ 25mm" row of the Case D Range Chart for the AP To Kill Table.

13.23 vs GUNS: An ATR can be used vs Guns with gunshields as per 11.52 without using the AP To Kill Table.

13.24 vs PERSONNEL: An ATR can be used against Personnel targets with one FP as Small Arms Fire (no To Hit DR is necessary and therefore it may be used as part of a FG but it has no Long Range capability; i.e., it may not be fired beyond 12 hexes). An ATR leaves no Residual FP even if it attacks as part of a FG. Only 20L (i.e., 20 mm) ATR may use the Infantry Target Type and AP HE equivalency

13.25 LEADERSHIP: Leadership/Hero modifiers do not apply to ATR To Kill DR, but do modify any To Hit DR and affect use of the weapon as Small Arms Fire normally.

13.26 MALFUNCTION: Normal Breakdown and Repair rules apply to an ATR.

13.3 PANZERFAUST (PF): The PF[31] is a potentially inherent SW of every German Infantry unit after September 1943, and uses the C3 To Hit Table (as per 13.33) and the C7.33 HEAT To Kill Table to resolve any vehicular hit. PF are not normally available prior to 10/43; prior to that date, encounters with PF were limited to some 5,000 weapons undergoing combat trials, which in the game are termed PFk. Possible encounters with PFk can occur anytime after July 1943, but only as per SSR.

13.31 USAGE: All Good Order (or Berserk) German Infantry after September 1943 which can still fire during their current fire phase can possibly fire a PF. A unit attempts to fire a PF by making a PF Check dr (Δ). If the final PF Check dr is a 1-3, the unit has a PF and an opportunity to fire it and must attempt a To Hit DR on the C3 To Hit Table. If the final PF Check dr is ≥ 4, the unit may have a PF but no opportunity to fire it so the unit cannot attempt a To Hit DR. If the PF Check dr is an Original 6, the unit has no PF in position to fire and is pinned (even if heroic or berserk). If already pinned, the unit is broken instead (or suffers Casualty Reduction if berserk or heroic). There is a +1 drm to a PF Check dr if the scenario is set in Aug-Sept 1943, a -1 drm if it occurs in 1945, a +1 drm if it is fired at other than an AFV, and a +1 drm if used by a CX unit. There is a +1 drm if the unit is a HS/crew and a +2 drm if the unit is a SMC. A unit may not make a PF Check in Subsequent First Fire or FPF (A8.3-.31)—regardless of whether it made a PF Check during First Fire. Provided a

© 2000 Multi-Man Publishing, LLC

squad has not yet fired its inherent FP, it can attempt to fire a second PF in the same phase even if its first attempt did not yield a shot, but that would constitute use of two SW and cause the squad to lose its inherent FP for that phase (A7.351). Even if a unit's PF Check dr fails to result in a shot, that PF Check constitutes use of a SW (A7.35). A PF Check dr can be made only during a friendly fire phase (including a Defensive First Fire opportunity during an enemy MPh) and if successful must be immediately fired. As a one-shot weapon, a PF may not directly affect more than one unit when fired at an Infantry/Cavalry target (see 8.31) unless the Random Selection DR indicates several units are affected. However, once a hit is gained vs a multi-target Location and prior to any Random Selection, the firer can select the unit to be affected, provided that unit is Known and manning a Gun/SW. A PF/PFk hit does not leave Residual FP because it is a one-shot weapon with limited application vs Infantry. The total number of PF shots taken in the course of a scenario may not exceed the number of German squads in the OB prior to 1944, 1½ (FRD) times the number of squads during 1944, and twice the number of German squads in 1945. The number of shots taken is recorded on the PF Usage Track of the Scenario Aid Card by marking the total allowed number of PF shots on the track with a PF counter and moving it along the Track towards 0 one box at a time whenever a PF shot is taken. When the PF counter reaches the 0 box, no more PF shots may be attempted.[32]

***13.311 OPTIONAL USAGE:** Prior to setup in any scenario occurring after September 1943, the German player is allocated PF equal to the number of squads in his OB prior to 1944, 1½ times (FRD) the number of squads in 1944, and twice the number of squads in 1945. He secretly records which units are carrying PF. Each Personnel unit may carry a number of PF equal to its US#. There is no portage cost. The weapons may be fired or transferred in the same manner as any inherent SW, except that no PF Check is necessary. After use or transfer, the PF possession records are updated accordingly because a PF can fire only once before being removed.

13.32 RANGE: The effective range of a PF varies with the time frame of the scenario. PF range is limited to one hex prior to June 1944, two hexes from June to December 1944, and three hexes thereafter. A PFk always has a one hex range.

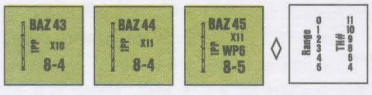
13.33 RANGE EFFECTS: The Basic TH# (10) of a PF/PFk attack is modified by -2 for each hex of range to the target.

EX: A PF firing on a vehicular *or Infantry* target two hexes away has a Modified TH# of 6; if it fired during the AFPh, Case C[3] would also apply and add a +2 To Hit DRM (unless fired as Opportunity Fire).

13.34 TK#: The Basic TK# of a PF is 31 as listed on the C7.33 HEAT To Kill Table; that of a PFk is 22.

13.35 LEADERSHIP: A leader stacked with a PF firer can apply his leadership modifier to the To Hit DR of one PF but such use would constitute his sole fire direction for that phase. A leader who does not make a PF Check himself is not committed to that attack (or use of that SW), although if he does direct the To Hit DR of another unit which has passed its PF Check, he must state so before making the DR.

13.36 MALFUNCTION: A PF is a one-shot weapon which can only be fired in the same fire phase in which it was secured by a PF Check, and is therefore unaffected by Breakdown or Repair rules. However, an Original To Hit DR of 12 (11 or 12 for Inexperienced Infantry; A19.32) is not only a miss but results in its operator suffering Casualty Reduction.[33] An Original To Kill DR of 12 is a Dud (7.35), or if rolled on the IFT has no effect.



13.4 BAZOOKA (BAZ): BAZ Counters are provided for three different versions; the actual year of availability of each is specified on the counter *[EXC: BAZ 43 first becomes available in November, 1942]*. The American units are always assumed to use the latest model available.[34]

13.41 USAGE: Any unbroken Infantry MMC can fire a BAZ and such use constitutes use of a SW (A7.35).

13.42 TO HIT: Each BAZ has its own abbreviated To Hit Table listing its Basic TH# at each of its allowable ranges, printed on the reverse of its counter. This To Hit Table is used for both armored and unarmored targets. Although a BAZ has its own To Hit Table, all Firer (C5) and Target (C6) Hit Determination DRM applicable to LATW apply.

13.43 TO KILL: Once a hit has been scored vs a vehicular target, it is resolved on the C7.33 HEAT To Kill Table using either the BAZ 43 or the BAZ 44+ column, depending on the time frame of the scenario; vs an unarmored target, a hit is resolved on the 8 column of the IFT (see 8.31).

13.44 LEADERSHIP: The leadership modifier of any one leader directing a BAZ attack may be used to modify its To Hit DR.

13.45 SMC USAGE: Any combination of two SMC may fire a BAZ at full effect. Leaders cannot modify their own fire although a Hero can, (A15.24) whether singly or in combination with another SMC. A BAZ can be used by one SMC only if that SMC is a Hero (A15.23).

13.46 WP: The BAZ 45 has the option of firing WP. Normal Ammunition Depletion Number rules (8.9) apply.

13.47 MALFUNCTION: A BAZ is permanently removed from play if its unmodified To Hit DR is ≥ its X#.



13.48 PANZERSCHRECK (PSK): All BAZ rules apply to the PSK[35] except that the latter does not fire WP, has its own To Hit Table printed on the back of its counter, has an IFT effect of 12 (see 8.31), resolves its vehicular hits on the PSK column of the C7.33 HEAT To Kill Table, and is available from September 1943 on.



13.5 MOLOTOV PROJECTOR: The MOL-Projector[38] is a crewed, 2PP Russian LATW ordnance-SW with its own To Hit Table printed on the back of the counter. This TH Table is used vs both armored and unarmored targets in the same manner as a BAZ except as noted otherwise below.

13.51 USAGE: Only a Russian crew, or two Russian SMC (as per 12.21), may use a MOL-Projector with neither Captured nor non-qualified use (A21.13) penalties. A Russian non-heroic leader may use one *with* non-qualified-use penalties. A Russian hero may use one as per A15.23. A MOL-Projector is not a SCW, has no "backblast" and does not fire HEAT; hence 13.8-.9 do not apply to its use, and it may be fired from a building/Pillbox/Rooftop. Like ordnance unable to use the Area Target Type (13.1), a MOL-Projector must predesignate its target before firing. Moreover, in the PFPh and DFPh it must fire before the first weapon firing other than SMOKE in that phase (since it places smoke when it achieves a hit; 13.58); however, this restriction does not apply to firing in the enemy MPh. Leadership DRM do not apply to a MOL-Projector's TH DR. A MOL-Projector may not fire at a target that lies at a different elevation than the firer if the elevation difference between them exceeds the range, nor may it be fired by PRC (though it may be carried as a Passenger/Rider on a vehicle). It may not use Bore Sighting, Target Acquisition, Intensive or Sustained Fire, nor may it attempt Deliberate Immobilization.

13.52 CH: A MOL-Projector achieves a CH on an Original 2 TH DR (3.7). See also 13.53-.56.

13.53 EFFECTS: The effects of a hit by a MOL-Projector are similar to those of a MOL attack. However, unlike the latter, a MOL-Projector attack is an ordnance attack and hence is never accompanied by a Small Arms attack.

13.54 vs AFV: An AFV hit by a MOL-Projector is affected exactly as if hit by a MOL (A22.612). However, the *only* possible modifications to the MOL-Projector attack's Basic TK number are: +1 for hitting an OT AFV; +1 for a rear Target Facing hit; and doubling due to a CH. A hit also causes a 4-FP Specific Collateral Attack vs an AFV's Vulnerable PRC.

© 2000 Multi-Man Publishing, LLC

13.55 vs UNARMORED VEHICLE: An unarmored vehicle hit (or Partially Armored Vehicle hit in an unarmored Aspect; 3.9) by a MOL-Projector is attacked on the ★ Vehicle Line of the IFT using a Kill number of 9. A CH doubles this Kill number to 18.

13.56 vs INFANTRY/GUN: An Infantry-target/non-vehicular-Gun hit by a MOL-Projector is affected exactly as if hit by a 4-FP HE attack. A CH causes an 8-FP attack with applicable reversed TEM (or, vs the Gun, eliminates it and its manning Infantry).

13.57 vs TERRAIN: A MOL-Projector hit can cause a Flame in Burnable Terrain as per A22.6111, but uses the colored dr of the TH DR. (An Original 6 dr has no adverse effect—but see 13.59.)

13.58 SMOKE: A MOL-Projector hit creates a white Dispersed Smoke counter as per 8.52.

13.59 MALFUNCTION: A MOL-Projector malfunctions on an Original TH DR of 11. As signified by "X12" printed in red on the counter, an Original TH DR of 12 eliminates the MOL-Projector and creates a Flame in its Location if there is Burnable Terrain therein. Both the X# and B# are lowered by the appropriate amount if Inexperienced/Captured/non-qualified, etc., use applies.



13.6 PIAT: The Projector, Infantry, Anti-Tank device was a spigot launcher which hurled, rather than fired, HEAT and was first available in April, 1943. It was normally issued one per platoon. There is only one version of the PIAT and it is treated as a SW counter. A PIAT cannot fire WP, has its own To Hit Table printed on the back of its counter, and resolves its vehicular hits on the PIAT column of the C7.33 HEAT To Kill Table. All other BAZ rules *[EXC: Backblast; 13.8]* apply to the PIAT except as modified below.

13.61 HEIGHT RESTRICTIONS: A PIAT cannot be fired at a target one or more levels lower in the same or an adjacent hex, since the required level of depression would pull the projectile out of firing position.

13.62 SMC USAGE: A PIAT can be used by a SMC at full effect with no penalty, although no leadership modifier would apply unless a non-firing leader directed the attack.

13.63 MALFUNCTION: A PIAT[36] has B10 instead of an X#, and is repaired on a Repair dr of 1-2 or removed on a dr of 6 (A9.72).

13.7 ANTI-TANK MAGNETIC MINE (ATMM): ATMM[37] are not represented by counters, but are considered possibly inherent in any German Infantry unit during or after 1944. An ATMM can be used at the option of any Good Order (or Berserk) and unpinned German Infantry unit against a vehicle *[EXC: wagon or motorcycle]* in the same hex as part of the CC process. Any unit—after designating but prior to resolving its CC attack vs a vehicle—may opt to declare an ATMM attack by making an ATMM Check dr. On an ATMM Check dr of 1-3, a man possessing an ATMM is in position to place it, which adds a -3 DRM to the CC attack by that unit. If the dr is a 4-5, no man with an ATMM is in position to attempt placement and the unit may attempt CC normally that turn. If the ATMM Check dr is an Original 6, the unit is pinned (even if berserk) and consequently has its CCV reduced by one during the subsequent CC attack (A11.5). A HS/Crew must add +1 and a SMC +2 to its ATMM Check dr. A CX unit must also add +1 to its ATMM Check dr, as would any unit using it vs a non-armored vehicle.

13.71 LEADERSHIP: Neither leadership nor heroism affects the preliminary ATMM Check dr, but does apply normally to the subsequent CC attack DR (unless a leader is attacking alone).

13.72 An ATMM has no effect on other units in the same hex, other than the normal effects vs any PRC of a vehicle which is destroyed (D5.6/D6.9).

13.73 SMC: An Infantry SMC may attempt an ATMM attack vs a vehicle (as per 13.7) and if the ATMM Check dr is successful, the ATMM DRM can be applied to the combined CC attack of the SMC and *any* unit it attacks with, provided their combined attack was predesignated before the ATMM Check dr. If a SMC attempts an ATMM Check dr, no unit attacking with it may make an ATMM Check dr of its own. However, if the SMC ATMM Check dr is not successful, no unit other than the SMC can be pinned due to that ATMM Check dr.

13.74 MALFUNCTION: An ATMM malfunctions on an Original CC DR of 12 and therefore its CC DRM is not applicable.

13.8 BACKBLAST: Due to the attendant backblast of these weapons, a PF/PFk, BAZ, PSK, or RCL may not be fired from inside a vehicle, rubble, pillbox, cave, sewer, or building *[EXC: Factory and rooftop]* without a Desperation (13.81) penalty. *[EXC: Non-Desperation fire from ground-level rubble or the ground floor of a building (but not from pillbox, sewer, or vehicle) is allowed by unpinned units using Opportunity fire or applying the Case C3 To Hit DRM (5.34), due to the movement which is assumed necessary to move into an alley prior to the shot].* These weapons also may not fire at a target two or more levels higher in an adjacent hex, or directly above them in the same hex.

13.81 DESPERATION: Whether due to ignorance, panic, or dire circumstance, these weapons (13.8) were sometimes fired inside restrictive terrain, and hundreds of deaths and serious burns resulted to the operators as a consequence. Therefore, the Case C3 To Hit DRM can be ignored if so predesignated, but all occupants of the firing Location in such restrictive terrain undergo attack on the 1 FP column of the IFT using only the colored dr of that To Hit DR. No drm apply.

13.9 SHAPED-CHARGE WEAPONS (SCW): PF/PFk, BAZ, PSK and PIAT are all SCW. The anti-personnel rounds fired by SCW were actually HEAT, not HE, and only these rounds (and WP fired by BAZ) can be used vs Personnel targets (see 8.31).

FOOTNOTES

1. *1.2 RADIO CONTACT ATTEMPT:* We do not mean to leave the player with the impression that an Observer could call in fire directions and have those orders cleared fast enough to actually track a moving unit's path across the board. OBA resolution actually represents pre-plotted fire which was originally handled in the RPh of the basic game. However, handling artillery mechanics in that manner allowed players to unrealistically avoid pre-plotted orders through their omniscience and move away from shellings which had not even started yet. To avoid this, we found it far more playable and realistic to allow OBA to be plotted "instantly" even though the actual "calling in" of such fire would have occurred previously.

2. *1.22 MAINTAINING RADIO CONTACT:* Almost every Infantry battalion had its own inherent mortar battery, and the chance of receiving Fire Missions from it was much greater than from larger caliber batteries because the mortars had less area to cover and correspondingly fewer demands for Fire Missions.

3. *1.22 MAINTAINING RADIO CONTACT:* Admittedly, a leader/Observer often had another squad member along to tote a radio for him, but allowing a leader to use any radio possessed by a friendly unit in the same Location poses far more specific rules questions and inconsistencies than it is worth—especially when two leaders occupy the same Location.

4. *1.54 FRIENDLY UNITS:* Few things in battle are as demoralizing as being shelled by one's own artillery or strafed by friendly aircraft. Even Green troops could usually tell the direction of incoming fire and identify it as friendly or enemy.

5. *1.6 OBSERVER:* A radio tends to be all too visible to the omniscient player and can rapidly become the target of all available FP. For this reason, players may well wish to agree beforehand to note the Location or possession of radios by side record rather than revealing their presence with a counter. Observers are assumed to be equipped with field glasses and therefore better able to discern targets at great distances which would not be visible over the open sights of most weapons. However, concealed

© 2000 Multi-Man Publishing, LLC

units ≥ 16 hexes away are considered conducting themselves in such a cautious manner that better optics are not of particular value in "seeing" them—at least not automatically.

6. *2.24 ROF:* If the crew hits the target with its first shell, it has saved itself time which can be used to select and engage another target. On the other hand, if the crew misses the same target many times or by a wide margin, it may not even hit its initial target within that time frame, let alone engage other targets. This accuracy/time factor is abstractly represented by the colored dr of the To Hit Resolution DR.

7. *3.33 AREA TARGET TYPE:* Direct Fire on the Area Target Type represents using a lower ROF to shell a general area (usually to discourage movement and/or to keep enemy heads down), as opposed to aimed fire at a particular target. It is generally easier to hit such an area, but less likely that serious damage will be inflicted on any given unit therein. Mortars use the Area Target Type mainly because the mechanics of its resolution is more in keeping with their Indirect Fire characteristics. The prohibition against allowing Area Target Fire to affect units out of the firer's LOS is less realistic for mortars than for Direct Fire Guns, but effectively keeps them from firing at units they could not see in reality (the Omniscient Player syndrome)—while still allowing them to fire at an upper building level in order to acquire it. The Basic To Hit Numbers are lowered at short range for three reasons. First, making them "9" at 0-12 hexes would result in mortars being too accurate at such range. Second, the closer an area is to a Gun shelling it, the more the Gun must be traversed in order to land shells throughout that area. This lowers its ROF and consequently its overall ability to affect that area. Third, with enemy units so close it is assumed that a Gun would usually aim at specific targets, so as to achieve maximum effect. The lowered close-range To Hit Numbers encourage use of the Infantry Target Type and thus simulates this tactic.

8. *3.8 MULTIPLE HITS:* The two minute Game Turns of ASL, combined with the To Hit system mechanics, require that each "shot" fired on the gameboard actually represents the firing of an unspecified number of rounds within that time span. A "hit" means only that at least one of those rounds found its target. In reality, several such rounds may have struck the target and had an effect—a "hit" that eventually scores a KIA/MC on several units in the same hex can often be assumed to have been caused by several well-placed rounds. This multiple hit possibility increases with smaller caliber Guns which could fire a greater number of rounds in a given time span, and were often even clip-fed with automatic fire capability.

9. *6.17 EXAMPLE:* A veteran gamer will recognize that the example poses an unrealistic situation because the bulk of the five MP expended in W6 were actually spent out of LOS of the AT Gun while the tank ascended the hill on the other side of the crest. A more realistic treatment would take the slope of the hill into consideration so as to declare that only one MP was spent in LOS of T4 while all five MP were spent in LOS of X5 (or any hex on that side of the hill with a LOS to W6). Veteran gamers may well wish to adopt House Rules of this type for this situation, rather than use the simpler rules presented here.

10. *6.4 BORE SIGHTED LOCATION:* Units in a defensive posture with time to set up a well-planned defensive perimeter would analyze the avenues of approach to their lines and zero their heavy weapons in on particular pieces of ground. By sighting through a gun's open bore or firing sample rounds, they could eyeball the weapon into a position wherein it could hit the target area automatically, merely by adjusting the Gun according to pre-set coordinates. The principal use of Bore Sighting (or Grazing Fire) was to be able to lay down effective fire on an expected avenue of approach despite poor visibility. MG, in particular, were "set" to lay down fire at knee level above the ground which is why Bore Sighting is not allowed at upper building levels.

11. *6.58 ACQUISITION COUNTERS:* In most scenarios, players can help ensure that the numbers of Acquired Target counters provided will suffice by selecting Guns with properly diverse ID letters. For example, if a scenario calls for three each of six different types of Guns, the player can double his supply of usable Acquired Target counters if he uses ID letters A-C for three of them and D-F for the other three, rather than using A-C again or an indiscriminate mix for all six.

12. *6.8 TEM:* Players should realize that use of the TEM to alter the To Hit DR rather than the IFT DR does not mean that a stone building is harder to hit than a wooden building. It does mean that a shell must be placed closer to an unarmored target within that building to have an effect on that target than would be true for a less formidable structure.

13. *7.1 TO KILL NUMBERS:* Each TK# represents the Gun's armor penetration at 500 meters range and at an impact angle of 0° plus a base of 5 (although some TK# are weighted further for special performance characteristics). A Final TK# of 5 means that the shell would just barely penetrate the armor struck; one of ≤ 4 indicates that it generally could not penetrate unless it struck a weak spot—although such hits could sometimes cause spalling (fragmentation) of the armor's inner surface. HE does not actually "penetrate"; but its concussive effect can cause thinner armor to shatter and collapse inward, as well as causing spalling and/or blasting loose interior attachments that become deadly projectiles.

14. *7.311 vs UNARMORED:* It is interesting to note that the TK# for unarmored vehicles is often < that of an AFV. This is due to the fact that, although an unarmored vehicle is always penetrated by a hit, the projectile may pass entirely through the vehicle without detonating or striking anything vital. On the other hand, a projectile which has penetrated an AFV often explodes, or loses too much velocity to punch its way out the other side and therefore ricochets inside with murderous effect—in both cases in addition to causing potentially lethal fragmentation as it penetrates the armor.

15. *7.35 DUD:* This rule generically encompasses another minor aspect of fate; i.e., rounds that fail to detonate or shatter harmlessly upon impact, and also those that strike a glancing blow or hit a non-vital part of an AFV (such as a stowage bin).

16. *7.4 SHOCK/UK:* In the early days of riveted (as opposed to cast/welded) construction, even a MG bullet making a direct hit on a rivet could send it hurtling through the interior to ricochet with deadly effect. Later, as tanks acquired ever-thicker armor in the escalating race to stay ahead of constantly enlarging anti-tank armament, a hit could result in only partial armor penetration but could still cause spalling (fragmentation) in the interior with devastating effects. Regardless of the cause, a non-penetrating hit still occasionally gave an undergunned attacker the chance to finish off a superior foe before it could effectively return fire. Another common occurrence was an AFV's crew being killed, injured, or stunned—with no visual effect of this apparent to the firer. In such an instance, the firer, not knowing if the target was out of action, usually continued to pump rounds into it until satisfied that it was indeed knocked out.

17. *8. SPECIAL AMMUNITION:* Types of available ammunition varied with each piece of ordnance, but as the war progressed the combatants often tried to overcome the shortcomings of their weapons with innovations and refinements to the projectiles. The availability of special types was always limited, however, due to either shortage of raw materials, local supply shortages, mass production facilities for its manufacture, or merely the lack of room (especially in an AFV) to store and transport many specialized rounds beyond the standard needs of more conventional AP and HE ammunition.

18. *8.11 APCR:* As the tank evolved, attempts to combat it with steel shot proved increasingly difficult as typical AP rounds then in existence tended to shatter at the high velocities necessary. Tungsten shot, although it would not shatter, was so dense that it required more propellant than the gun breeches could safely tolerate. The Germans were among the first to solve this problem by using a tungsten core surrounded by a light alloy body. This made a projectile of the necessary size, but whose weight was actually less than standard steel shot thus giving both a higher velocity and a shatter-proof projectile. The only drawback to such ammunition was a lack of carrying power over long range due to its poor weight:diameter ratio. This ammunition was called PzGr40 by the Germans and HVAP (High Velocity Armor Piercing) by the U.S., but for our purposes it will be referred to as APCR (Armor Piercing Composite Rigid). The German supplies of tungsten were limited and for them such ammunition became increasingly rare after 1942.

© 2000 Multi-Man Publishing, LLC

19. *8.11 APDS:* The British developed a unique composite projectile referred to as APDS (Armor Piercing Discarding Sabot), composed of a tungsten core enclosed in a light alloy sheath. Unlike APCR, this sheath separated from the core at the muzzle, allowing the core to gain both high velocity and carrying power due to its better weight:diameter ratio.

20. *8.3 HEAT:* High Explosive Anti-Tank rounds were designed to detonate at a predetermined distance from the target's surface, and to channel the resulting explosion in a narrow concentration which could instantly burn through armor like a super blow torch while simultaneously spraying the AFV interior with molten metal.

21. *8.31 HE EQUIVALENCY:* PF were used against non-armored targets; particularly in urban areas where they acted as portable howitzers in assaulting buildings. However, allowing such use under the standard PF availability rules would make a German squad far too strong in terms of pure firepower against Infantry because a player would not "save" his PF for use vs armored targets as his real life counterpart would be prone to do. AP was also sometimes used vs personnel—usually due to no other ammunition being available. Moreover, many of the Guns listed as having no HE capability did in fact have HE rounds produced for them, but they were rarely used due to their very marginal performance.

22. *8.4 CANISTER:* Canister is an A-P round which fires many steel balls in a pattern not unlike that created by a shotgun. The American 37mm round for example contained 122 3/8" steel balls.

23. *8.5 SMOKE:* Conventional smoke rounds represent "base-ejection carrier shells" which used a time fuze to propel smoke canisters out of the shell while still airborne. The canisters, usually three to a shell, then scattered as they fell to the ground, and continued to emit smoke for up to two minutes. Smoke produced in this manner was relatively cool and clung to the ground, providing a fine smoke screen.

24. *8.51:* The assumption here is that DFPh placement is not planned but reactionary, and therefore not as many rounds are fired.

25. *8.6 WP:* The U.S. used a different chemical agent for much of its ordnance. WP used a bursting type carrier shell which exploded upon contact and instantly spread its entire phosphorus content, whereupon it ignited upon contact with the air. Phosphorus generates heat, causing the surrounding air to rise taking the smoke with it; consequently phosphorus tends to pillar and leave gaps in the resulting smoke screen. The Germans rarely used WP due to raw material shortages. The British received it from the U.S., but their quantities were limited.

26. *10.1 TOWING:* Mortars of 76-107mm are exempted from many of the normal Gun Towing penalties because they were generally carried in the vehicle rather than towed behind it.

27. *10.25 RFNM:* Guns penalized with RFNM generally represent long range heavy artillery pieces that weighed in excess of ten tons. They often had to be disassembled to be moved—a process requiring far more time than available in the average scenario. In addition, their Indirect Fire role meant that they often did not even have Direct Fire optics.

28. *11.1 NEAR MISS:* A Gun was rarely the target of ordnance fire. Rather, fire was concentrated on the crew serving the Gun; the fact that the crew serving the Gun was clustered around it merely made the Gun a convenient aiming point. Nevertheless, the intent was to silence the Gun; elimination or intimidation of the crew is the easiest way to accomplish that end. If, in the process, the Gun itself happened to be damaged, so much the better, but that particular outcome need not be achieved to put the Gun out of action. Thus, the proper tactic vs any Gun is to use HE ammunition on the Infantry or Area Target Type so that it can be silenced with a Near Miss.

29. *11.5 GUNSHIELDS:* While many ART and AA Guns also had gunshields, their crews were too large and their ammunition too bulky for their gunshields to have a consistent effect in game terms.

30. *13.2 ATR:* Most ATR are not given a Multiple ROF because it is assumed that several such "hits" are necessary to generate a substantial chance of eliminating an AFV by striking it in a vital area. In essence, the extra "shots" have been traded for a higher likelihood of meaningful hits with one To Hit DR.

31. *13.3 PF:* The PF was a weapon born of necessity during the war, and continued to evolve with newer improved versions being introduced for combat trials and later standardized as the war progressed. Therefore, its capabilities and availability change with the time frame of the scenario.

32. *13.31 PF USAGE:* Alternatively, players looking for a use for the German squad counters in previous games may wish to represent an Original PF Check dr of 6 as meaning the unit has no PF and noting it by replacement with a counter from the previous game system.

PF counters were removed from *ASL* not just due to the clutter they contributed to on the board, but primarily for realism reasons. In the old *SQUAD LEADER*, a player always inspected a stack for the presence of PF before deciding whether he would move his armor in range. In real life, tank commanders had no such opportunity—all enemy Infantry had to be treated as a potential threat—no degree of safety was ascertained by checking for visible SW counters. Even if one used the hidden PF option, which many were loath to do, the Infantry was still given an unfair advantage in that it was assumed those PF were always fired when needed. Doubtless many players will not care for this system of inherent SW where they have to roll a die to have access to a weapon. These are the same players who want to control everything that their forces do in a game. It is our contention, however, that representing such weapons with counters and allowing a player to shoot at will is much less realistic than this abstracted system which factors in the unknowns of the battlefield. One should keep in mind that the PF Check dr represents an abstracted calculation of not only whether the unit possesses such a weapon, but also whether the man possessing it is in a position to take a shot, and if he is—whether he is willing to do so. This is why a unit can be unable to fire a PF one turn, and is able to do so the next. The weapon didn't "grow" in the meantime; the individual soldier has found his nerve or is now in position to attempt a shot even though his counter hasn't moved on the map. The player who wants his cardboard soldiers to fire his PF on his command is playing with just that—cardboard soldiers. On the battlefield, a man acts with no such certainty—especially with a weapon as cumbersome to fire as a PF, or at a target as terrifying as a tank whose attention will most assuredly be drawn should he miss with his one shot.

33. *13.36 MALFUNCTION:* A PF, like all SCW with a backblast, was a dangerous weapon to fire in combat. The firer had to position himself so that neither he nor his comrades would be affected by the backblast—which often meant firing from an exposed position while standing erect. Then too, the weapon could hardly be fired from the hip, and required taking careful aim—rather than snap shots—making its operator a prime target.

34. *13.4 BAZ:* Like the PF, the performance of the American BAZ—or the "shoulder 75mm" as the Germans referred to it—was improved with newly evolving models as the war progressed. Unlike the PF, a BAZ was not an inherently authorized squad weapon and therefore is represented by a SW counter. BAZ were issued to Heavy Weapons Platoons and Companies and then assigned as special support elements as the situation warranted. The relatively low X# for SCW primarily represents the limited ammunition stocks carried in the field.

35. *13.48 PSK:* The PSK is an improved German version of the BAZ and indeed was inspired by captured BAZ. Although the PSK was authorized as a weapon at the squad level in the 1944-45 versions of SS Panzer Grenadier units, it is doubtful whether even the SS received such a full complement and as a consequence the PSK is treated as a SW counter rather than an inherent squad SW.

36. *13.63 PIAT MALFUNCTION:* A PIAT depended on the recoil of its spring propulsion system to recock the weapon for its next use. If it did not succeed in recocking itself, a considerable effort was necessary to recock it manually. This is reflected by both higher Breakdown incidence (B10+) and (unlike rocket propulsion LATW) Repair Numbers (R2). Almost 115,000 PIAT were made, and were issued one per Infantry platoon.

37. *13.7 ATMM:* An ATMM is a special form of LATW which is not fired, but must be physically placed on its target. ATMM proved to be devastating tank killers, given Infantry with enough nerve and opportunity to clamp one onto an AFV. Contrary to popular opinion, ATMM were not used by the

© 2000 Multi-Man Publishing, LLC

Russians. It was long assumed that they were because the Germans developed Zimmerit—an anti-magnetic paste application for their AFV. However, this proved to be a case of the Germans foreseeing a solution to a problem which never developed. They believed the Russians would be quick to copy their own magnetic mines and took immediate countermeasures, but the Russians never did develop an ATMM of their own.

38. *13.5 MOL-PROJECTOR:* This little-known Soviet weapon, for which no official designation has come to light, was used in 1942-43 and then discarded. It looked somewhat like a PSK but, unlike the latter, did not fire a rocket. Moreover, not being recoilless, it could not be shoulder-fired. The U. S. Army referred to it as a low-trajectory mortar for firing incendiary ampules at AFV, thus implying that it was a smooth-bore muzzle-loader with a glass, MOL-like projectile. (In this it was similar to the Northover Projector, a British Home Guard weapon of 1940 that fired a glass WP grenade.) Its issue was apparently not widespread, but in 1942-43 at least some rifle battalions contained one MOL-Projector platoon (probably 2-4 weapons). Photographic evidence indicates that it was used in Stalingrad.

© 2000 Multi-Man Publishing, LLC

D. VEHICLES

ORDER OF PRESENTATION:

1. Vehicle Counters
2. Vehicular Movement
3. AFV Combat
4. Terrain Modifications to Anti-Vehicle Fire
5. Inherent Crew
6. Transporting Personnel
7. Overruns (OVR)
8. Immobilization & Bog
9. Vehicles as Cover
10. Wrecks
11. Gyrostabilizers & Schuerzen
12. Horse-Drawn Transport
13. Vehicular Smoke Dispensers
14. Radioless AFV
15. Motorcycles & Bicycles
16. DD Tanks & Amphibians

D.1 VEHICLE LISTINGS: Due to the complexity of AFV data and the minor variations in each model type, vehicle data has been compiled into master listings to supplement the data contained on the counters. Players should consult the Vehicle Listings in Chapter H before each scenario to fully familiarize themselves with the special capabilities of any vehicle that appears in that particular scenario. The Vehicle Listings contain in chart form the information printed on each vehicle counter, plus other data such as the vehicle's weight and special notes pertaining to its unique traits (if any) that require further explanation. Any Listing data followed by a dagger symbol (†) indicates a specific Vehicle Note that should be consulted for exceptions/explanations pertinent to that data. When a Note creates an exception to the normal use of a particular rule, that Note takes precedence.

D.2 ANIMAL MOVEMENT: Horse- (and other animal-) drawn transport is considered vehicular except that it uses MF as opposed to MP and therefore is governed by different rules of movement (12.1). All other vehicles use MP—not MF. Horses/cavalry and animal-drawn transport which end their move in a building/woods hex while using Bypass are left straddling the hexside facing their CAFP in the same manner as a vehicle in stationary Bypass.

D.3 PREP FIRE: Should any vehicle/its-PRC fire in its PFPh, it may neither move in the subsequent MPh nor fire during that MPh or the subsequent AFPh (although Passengers/Riders that have not yet fired may unload in the MPh; 6.5).

D.4 CA: A rule that refers to a change in CA without specifying any difference between VCA and TCA is considered relevant to both.

D.5 SECRET DR/dr: The rules will occasionally require a player (in the absence of a judge) to make a "Secret DR/dr" which presents the player with the dilemma of his opponent making a DR/dr for him which the latter can see but which the former cannot, while still being able to later verify the result. Below are two House Rules recommended in increasing order of required preparation. Fake DR/dr, e.g., for non-existent A-T mines, or for unnecessary Reliability DR, are NA, whether secret or not.

D.5A DICE CUP: The player places the die or dice in an opaque cup and turns it upside down on the table, being careful to check the results so that only he can see. Later, when verification is needed, the cup is lifted to reveal the DR/dr. If both a DR and a dr are required (as per 8.23), use two white dice for the DR and a colored die for the dr and resolve both simultaneously. Similar color substitutions can be made under your own House Rules to resolve any number of DR/dr with a single resolution, provided they are specified in advance.

D.5B CARDS: The player should prepare two specially composed decks from conventional playing cards. The DR deck consists of 36 cards (one 2, two 3's, three 4's, four 5's, five 6's, six 7's, five 8's, four 9's, three 10's, two Jacks (11's), and one Queen (12). The dr deck will consist of 24 cards (four each of Ace through 6) of another back pattern style. The player can resolve his Secret DR/dr by selecting a card at random from the appropriate deck and leaving it face down until verification is necessary.

D.6 VEHICULAR-TARGET HITS vs PRC: First Fire DRM (FFNAM & FFMO) never apply to PRC as long as they remain on their vehicle. PRC can never be fired on separately by ordnance *[EXC: motorcyclists; 15.5]*, but if Vulnerable can still be affected Collaterally by such attacks (D.8).

D.7 MOBILE/IMMOBILE: A Mobile vehicle is one capable of movement during its MPh because it is not Immobile (i.e., because it is not bogged, immobilized, mired, or Abandoned, and whose Inherent crew is not broken, Shocked or Stunned). A vehicle that cannot move in its MPh due to being radioless (14.23), or because it is TI or has already Prep Fired, is still considered Mobile.

D.8 COLLATERAL ATTACKS: Generally, when a vehicle is in a Location where occupants are subjected to incoming FP or a To Kill DR, that vehicle's Vulnerable PRC can also be affected by that attack. This effect vs Vulnerable PRC is called a Collateral Attack, and can occur in two ways. The first is via an attack that does not have the vehicle as its predesignated target (e.g., Small Arms Fire, OBA, or use of the Infantry or Area Target Type); this type of attack affects the PRC normally (i.e., causes a General Collateral Attack since it applies equally to all occupants of that Location; A7.4). The second way is via an attack that must "specify" the vehicle as its predesignated target (e.g., ordnance, MG vs AFV, minefield, etc); this type of attack primarily affects the vehicle, with the PRC receiving the secondary effects of that attack as a Specific Collateral Attack. A Collateral Attack (whether General or Specific) is resolved as a separate attack vs the vehicle's Vulnerable PRC immediately subsequent to the resolution of the attack vs the vehicle, using the attacking weapon's/ammo type's IFT FP (which includes HE Equivalency; C8.31) and the same Original Effects DR that resolved the attack vs the vehicle *[EXC: No Collateral Attack occurs if the vehicle is destroyed outright (5.6). If the crew/Passenger(s) are/become shocked (C7.42) or stunned (5.34), a Collateral Attack applies only to the vehicle's Riders (6.23). See 6.84 for crews that cannot be BU.]*. Multiple Hits (C3.8) do not cause extra Collateral Attacks. A Collateral Attack receives no increased benefit due to Multiple Hits, nor does it leave Residual FP (A8.2).

D.8A SPECIFIC: When a vehicle is attacked (such that a DR is made on the IFT or a To Kill Table) as a predesignated target but not destroyed, etc., any Vulnerable PRC in/on it are subject to a full strength Specific Collateral Attack as per D.8 above. The only DRM which applies is that for any applicable CE status. No other unit in the same Location is affected by the FP of a Specific Collateral Attack. A Deliberate Immobilization hit never causes a Specific Collateral Attack.

D.8B GENERAL: When a vehicle is subjected to (but not destroyed, etc. by) FP which is not required to predesignate it as the target, any Vulnerable PRC in/on it are subject to a General Collateral Attack as per D.8 above, but modified normally for range, Hindrances, TEM/CE DRM, etc.—just as if the Vulnerable PRC were the only target being attacked. Additionally, the Vulnerable PRC of any other vehicle in the same Location are also subject to the same General Collateral Attack (but possibly with different modifiers due to their CE/Motion status, etc.). A General Collateral Attack is just a special name for the application of the original attack to a vehicle's Vulnerable PRC. (See Collateral Attack Table and Example at the top of the next page.)

© 2000 Multi-Man Publishing, LLC

COLLATERAL ATTACK TABLE[1]

Weapon Target:	AFV	Unarmored Vehicle
MG/IFE/Small Arms[2]	G[3]	G
FT	S	G
DC[6]	S[7]	G
MOL[8]	S/G	G
A-P Mines[9]/A-T Mines[10]	S	S
OBA/Infantry-and-Area-Target-Types/Canister	G	G
Vehicle Target Type[4]	S	S[5]

S: Specific Collateral Attack applies vs Vulnerable PRC of that vehicle.

G: General Collateral Attack applies vs all Vulnerable PRC in that Location.

1 Collateral Attack is NA if vehicle is destroyed. If crew/Passengers are/become stunned or shocked, Collateral Attack applies only to the vehicle's Riders.

2 Includes ATR when used as Small Arms (C13.24), but not MG To Hit/To Kill.

3 Firing at Vulnerable PRC directly on the IFT (rather than making To Hit/To Kill DR vs the AFV) is termed a General Collateral Attack since the AFV is unaffected (A7.3, A9.6-.611).

4 Collateral Attack is NA if hit results in Dud (C7.35).

5 Collateral Attack is NA if target is motorcyclist(s).

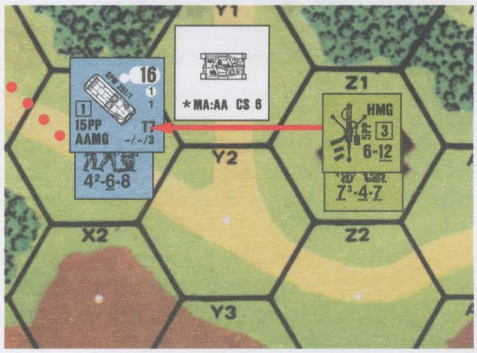
6 Collateral Attack is NA if DC malfunctions. If a Final Position DR (C7.346) was ≥ 9, a new DR is made to resolve the Collateral Attack.

7 Collateral Attack applies as determined by Position DR (C7.346).

8 If the MOL Check dr (A22.611) is successful, the ensuing Small Arms-MOL attack is resolved vs the AFV by means of a To Kill DR on the MOL column of the C7.34 HE & Flame To Kill Table. This same DR also serves as a Specific Collateral Attack (using both the Small Arms FP and the MOL's 4 FP) vs the AFV's Vulnerable PRC, and as a normal IFT attack (using only the Small Arms FP) vs all other non-armored units in the AFV's Location.

9 Only applies if vehicle becomes immobilized; crew (only) is not Vulnerable if vehicle is AFV with all hull AF > 0 (B28.43).

10 Collateral Attack is 16 FP vs PRC (NA vs crew if vehicle is AFV with all hull AF > 0; B28.52).



EX: During their MPh, the German SPW 251/1 and 4-6-8 squad Armor Assault (9.31) into X1. The American 7-4-7 attempts To Hit the halftrack firing the HMG as ordnance (A9.61). After securing a hit and keeping ROF with an Original TH DR of ≤ 6 (Modified TH# 10 - 4 [+1 Wreck Hindrance, +2 Moving Target, +1 Small Target = 4]), the HMG fails to destroy or Stun the halftrack since its TK DR of 5 is greater than the Final TK# of 4 (Base 4 + 1 Case D - 1 AF). The CE Crew immediately undergo a Specific Collateral Attack using the HMG's 6 IFT FP (as would any CE [i.e., unbroken] Passengers). Modified only by the +2 CE DRM, the Original TK DR of 5 becomes a Final IFT DR of 7, which results on the 6 FP column in a NMC on the Crew, which they pass. Because the HMG was firing as ordnance, the 7-4-7 could not firegroup with it. If the HMG had lost ROF, its attack would leave 1 Residual FP in X1 (reduced from 2 Residual due to the +1 Hindrance), but the Collateral Attack itself does not leave Residual FP.

The halftrack and squad continue moving in X1 as the halftrack changes VCA to Y1-Y2 and the squad attempts (but fails) to place a Smoke grenade. The 7-4-7 uses the HMG's ROF to attack again, but this time on the IFT; the 7-4-7 firegroups with the HMG for 13 FP. The Original IFT DR of 8 results in a 9 on the 12 FP column for a NMC for the moving squad (8 +1 Hindrance +1 Armored Assault -1 FFNAM = 9). The attack cannot harm the halftrack (A9.611) and the resulting General Collateral Attack has No Effect on the Vulnerable Crew after the +3 DRM (+2 CE, +1 Hindrance) is added to the Original IFT DR of 8.

1. VEHICLE COUNTERS

[All vehicles are represented by $^5/_8$" counters bearing an overhead depiction of the vehicle (which for most is drawn to a scale roughly corresponding to the hex size of *Deluxe ASL*) and an assortment of data pertaining to its size, movement, defense, and attack strengths. Although all vehicles have that information listed in chart form in their respective nationality's Vehicle Listing, the most commonly used data can be determined from the graphic layout of the counter. See also C2.9.]

1.1 MOVEMENT TYPE: For land movement purposes there are five types of vehicles (1.11-.15). Each *[EXC: Motorcycle]* is readily identified by the shape of the white symbol behind the large MP number in the upper right-hand corner of the counter. Any numerical superscript to the right of the MP number represents the vehicle's amphibious MP allotment (16.2); the movement type of the vehicle on land is still determined normally. If the MP number is printed in red, the vehicle is prone to mechanical breakdown (2.5).



1.11 MOTORCYCLE: A vehicle classified as a Motorcycle for movement purposes is recognizable by its white counter and its obvious overhead depiction.



1.12 ARMORED CAR: A vehicle classified as an Armored Car for movement purposes is recognizable by the white circular background (representing a wheel) behind its MP number (EX: German PSW 234/1 armored car).



1.13 FULLY TRACKED: A vehicle classified as Fully Tracked for movement purposes is recognizable by the white oval (representing a track) behind its MP number (EX: German PzKpfw IVH tank).



1.14 HALF-TRACKED: A vehicle classified as a Halftrack for movement purposes is recognizable by the white combination circle-oval (representing a track and a wheel) behind its MP number (EX: German SPW 251/1 halftrack).





1.15 TRUCK: A vehicle classified as a Truck for movement purposes is recognizable by the white double circles "figure eight" symbol (representing two wheels) behind its MP number (EX: Russian GAZ-MM truck; Russian BA-20 armored car).

1.2 ARMOR STATUS: Every vehicle falls into at least one of four Armor status categories. If a vehicle has any armor (1.6) it is referred to as an Armored Fighting Vehicle (AFV) and is subject to many special rules. The main advantage of an AFV is that it cannot be harmed by Small Arms on the IFT (although its PRC may be Vulnerable to such fire in certain situations) unless struck through an unarmored Target Facing/Aspect.





1.21 UNARMORED: An unarmored vehicle is recognizable by the presence of two ★ symbols (in red, white or black) vertically aligned beneath the MP number (EX: German Opel truck; German SdKfz 7 halftrack). AFV can be treated as unarmored vehicles vs certain types of attack; see 5.311 and B28.42.



1.22 PARTIALLY ARMORED: An AFV that has armor protection along only its front and side Target Facings is recognizable by the presence of a ★ symbol along the right-hand margin beneath its Side/Rear AF. If a "T" appears beside the ★, only the turret/upper-superstructure Aspect (C3.9) of the rear Target Facing is unarmored (EX: German Marder III(t)H).

© 2000 Multi-Man Publishing, LLC



1.23 OPEN-TOPPED (OT): An AFV whose entire overhead depiction is printed on a white background is an OT AFV (EX: German SPW 251/1 halftrack).



1.24 CLOSED-TOPPED (CT): An AFV with neither a ★, nor a white background for its overhead depiction, is a CT AFV (EX: German PzKpfw IVH tank).

1.3 MAIN ARMAMENT (MA) TYPE: Each armed vehicle has one MA Inherent weapon. The MA is shown as a large number representing its MA Gun Caliber Size (C2.21), or by the appropriate acronym for its MA MG, FT or ATR, in the bottom left-hand corner of the counter. The MA is either turret-mounted (1.31-.322) or bow-mounted (i.e., non-turreted; 1.33) *[EXC: MA AAMG; 1.83]*.



1.31 FAST TURRET TRAVERSE (T): Any MA of the "T" Type (which generally represents a three-man turret crew) is recognizable by a large but thin white circle on the counter (EX: German PzKpfw IVH tank).



1.32 SLOW TURRET TRAVERSE (ST): Any MA of the "ST" Type (which generally represents a two-man turret crew or heavy, manual-traverse turret) is recognizable by a large but thin white square on the counter (EX: German Panther tank).



1.321 RESTRICTED SLOW TRAVERSE (RST): Some tanks of the ST Type[1] had a turret/crew arrangement such that the MA and CMG could not be used while the commander was CE. Such a MA Type is termed "RST" (symbolized by a large thick white square), and is considered a ST Type but can fire neither its MA nor its CMG while CE (EX: Russian BT-5 tank).



1.322 ONE-MAN TURRET (1MT): Any MA of the "1MT" Type is recognized by a large thick white square with no corners (EX: German PzKpfw IB tank). A 1MT AFV is considered a ST Type, but can fire neither its MA nor its CMG while CE. In addition, any 1MT AFV that is Stunned is automatically Recalled (5.341) and may not become CE for the remainder of its time onboard.



1.33 NON-TURRETED (NT): Any MA of the "NT" Type *[EXC: MA AAMG; 1.83]* is recognizable by having no MA Type white circle/square on the counter (EX: German StuG IIIB assault gun). All bow-mounted weapons fall into this category.



1.34 SECONDARY ARMAMENT (SA): Some vehicles have a SA weapon, which is indicated on the counter in the same manner as, but above and in a smaller typeface than, the MA *[EXC: the SA is prefixed with a "T" if turret-mounted or a "B" if bow-mounted]* (EX: Italian M11/39 tank). A weapon must also be specifically listed in the SA column of that vehicle's entry line in its Vehicle Listing in order to be considered SA.

1.4 IDENTITY & GROUND PRESSURE: Each vehicle is identified by name (sometimes in shortened form) beside its overhead depiction, and individually by letter in the upper left-hand corner of the counter. The ID letter is used to identify different vehicles of the same type for record-keeping/Target-Acquisition—(C6.58) purposes. Each vehicle's Ground Pressure is listed as Low, Normal or High for Bog DR (8.21) purposes.

1.41 LOW GROUND PRESSURE: Any vehicle whose ID letter is encased in a square has Low Ground Pressure (EX: German PzKpfw IB tank).

1.42 NORMAL GROUND PRESSURE: Any vehicle whose ID letter is not encased in a circle or square has Normal Ground Pressure (EX: German StuG IIIB assault gun).

1.43 HIGH GROUND PRESSURE: Any vehicle whose ID letter is encased in a circle has High Ground Pressure (EX: Russian BA-20 armored car).

1.5 TOWING (T#)/PORTAGE (#PP): If a vehicle is allowed to tow a Gun, its counter will have a "T#" to indicate how heavy a Gun it can tow (C10.1). If a vehicle can carry Personnel/SW as Passengers, its counter will be marked in the form "#PP" to indicate the vehicle's maximum Passenger capacity (6.1).

1.6 ARMOR FACTOR (AF): Every AFV is rated as to the quality of its armor protection for both its front and side/rear Target Facings, as well as for both its hull and turret/upper-superstructure aspects, by the two numbers vertically aligned beneath its MP number. Armor is given a rating called an AF.[2] There are 11 different AF in the game: 0, 1, 2, 3, 4, 6, 8, 11, 14, 18, 26. Unless Partially-Armored, each AFV actually has four AF (which may or may not differ from each other): one each for its front (i.e., for the front Target Facing of its) hull, front turret/upper-superstructure, side/rear hull, and side/rear turret/upper-superstructure.

1.61 FRONT ARMOR: The upper printed AF is the AFV's front hull AF and, unless encased in a box or circle (1.63-.64), is also its front turret/upper-superstructure AF.

1.62 SIDE/REAR ARMOR: The lower printed AF is the AFV's side/rear hull AF and, unless encased in a box or circle (1.63-.64), is also its side/rear turret/upper-superstructure AF.



1.63 SUPERIOR TURRET: A printed AF encased in a square indicates that the AFV's turret/upper-superstructure AF for that Target Facing is > that hull AF. The Superior-Turret AF is calculated by increasing that printed AF to the next-higher AF value given in 1.6.

EX: The front hull AF of the German StuPz IV is 11, but its front upper-superstructure AF is 14. Its side/rear hull AF is 3, but its side/rear upper-superstructure AF is 4.



1.64 INFERIOR TURRET: A printed AF encased in a circle indicates that the AFV's turret/upper-superstructure AF for that Target Facing is < that hull AF. The Inferior-Turret AF is calculated by decreasing that printed AF to the next-lower AF value given in 1.6.

EX: The front hull AF of the Russian T-50 tank is 6, but its front turret AF is 4. Its side/rear hull AF is 4, but its side/rear turret AF is 3.

1.7 TARGET SIZE: All vehicles are rated for one of five possible Target Sizes, as follows:



1.71 VERY LARGE: A vehicle whose upper and lower AF (or ★ symbols) are both red is subject to a -2 Case P To Hit DRM when fired on (EX: German PzJg Tiger TD).



1.72 LARGE: A vehicle whose upper AF (or ★ symbol) is red is subject to a -1 Case P To Hit DRM when fired on (EX: German Panther tank).



1.73 AVERAGE: A vehicle whose upper and lower AF (or ★ symbols) are both black is subject to no Case P To Hit DRM when fired on (EX: German PzKpfw IVH tank).



1.74 SMALL: A vehicle whose upper AF is printed on a white dot (or whose upper ★ symbol is white) is eligible for a +1 Case P To Hit DRM when fired on (EX: German PzKpfw IIF tank).



1.75 VERY SMALL: A vehicle whose upper and lower AF are each printed on a white dot (or whose ★ symbols are both white) is eligible for a +2 Case P To Hit DRM when fired on (EX: German Kfz 1 Kuebelwagen).

1.76 CONCEALMENT: If a vehicle is concealed, special rules apply concerning its Target Size TH DRM, see A12.2.

© 2000 Multi-Man Publishing, LLC

1.8 VEHICULAR MG/FT: A vehicle with Inherent MG armament is identified by the MG FP factors printed in the lower right-hand corner in the configuration "b/c/a", with b = Bow MG FP, c = Coaxial MG FP, and a = AAMG FP. If no AAMG is present, the shortened form "b/c" is used. If a vehicle has an Inherent FT, its mounting configuration (B = Bow NT; T = Turret; S = Side-hull [see the pertinent Vehicle Note]), FP, and X# are printed in red; if the FP is underscored, its Normal Range is two hexes (see A22.1).

1.81 BOW MG (BMG): A BMG is a bow-mounted MG, and thus may fire only at a target that lies either within its vehicle's VCA or in its own hex *[EXC: see 4.223, 8.5 and C2.6]*. The Normal Range of a BMG is eight hexes. A few AFV have a hull RMG (Rear MG), which is represented by an "R#" superscript after the BMG FP. A hull RMG is equivalent to a BMG *[EXC: it may fire only at a target that lies either within its rear hull Target Facing or in its own hex but not in OVR]*. A BMG factor printed over a white dot represents a Fixed-Mount MG, which receives a +1 DRM to all fire at a moving unit (including moving vehicular target; C.8).

1.82 COAXIAL MG (CMG): The CMG FP may be used only when firing through the TCA. The Normal Range of a CMG is 12 hexes. Use of a CMG against other than an acquired target causes loss of any pre-existing Acquisition (C6.5) by the MA. Some AFV have a turret Rear MG which is reflected by the supercript "R#" after the CMG FP. A turret Rear MG has a Normal Range of eight hexes, may not be used in OVR or the same phase in which the MA fires, and can fire only through its rear turret Target Facing or at a target in the same hex (see 3.5). If a vehicle's CMG is restricted to firing only through its VCA (shown by "CMG: VCA Only" on the counter back), that CMG may not be used to attack in CC but it does serve to void the -1 CC DRM for an attack vs a vehicle "without manned, functioning MG armament" (A11.51). Mandatory Fire Direction (A9.4) does not apply to CMG.

1.83 ANTI-AIRCRAFT MG (AAMG): The AAMG FP may be used either within or outside of its vehicular current TCA/VCA at no penalty; i.e., for rules purposes it is considered neither "turret-mounted" nor "bow-mounted" (3.51) *[EXC: AAMG with restricted CA (e.g., German StuG IIIG or French H35) must pay the applicable Case A penalty for changing TCA/VCA as appropriate]*. Unlike the BMG/CMG FP of a CT AFV or any MG on an unarmored vehicle, an AFV AAMG must be manned by CE (5.3) crew members in order to be used; a BU AFV cannot use its AAMG FP (although a Hero could do so in either case; A15.23). The Normal Range of an AAMG is eight hexes.

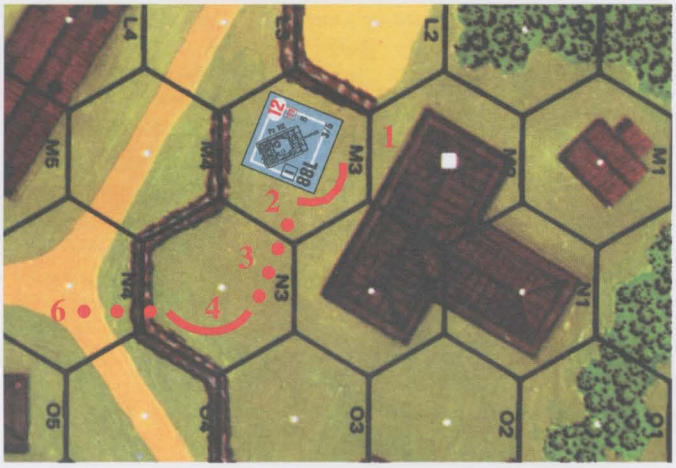
1.84 OPTIONAL ARMAMENT: Some vehicles have different armament assortments. Procedures for purchasing such added armament in DYO scenarios are provided in H1.41. However, in official scenarios only the armament configuration illustrated in the scenario OB is available unless the number of such vehicles required exceeds the number provided in the game, in which case the excess can be composed of vehicles with optional armament (of the owner's choice) provided that armament is available within that time frame.

1.9 WRECK: Most vehicles have a wreck depiction on a white background on their reverse side. If no wreck is depicted on the reverse of the counter, it (and any attendant fire/smoke) is removed from play when the vehicle is eliminated. The reverse of each counter also lists special information pertinent to that counter: Special Ammunition Depletion Numbers (C8), Gyrostabilizer (11.1), Smoke Dispensers (13), Crew Survival Number (5.6-.7), lack of radio (14), and other miscellaneous notes.

2. VEHICULAR MOVEMENT

2.1 A vehicle may expend up to its full MP allotment (and tracked vehicles may even exceed it at some risk; ESB, 2.5) during its own MPh in accordance with the COT entered, as listed on the pertinent MP Entrance Cost column of the Terrain Chart. The mechanics of vehicular movement are the same as for Infantry (A4.2 & A8.1). During his MPh, a player may move all, some, or none of his vehicular units, provided that each one he wishes to move did not fire during the preceding PFPh, is not TI, and is Mobile *[EXC: Radioless AFV; 14.23]*. A vehicle can be moved in any direction or combination of directions up to the limit of its MP allotment. A vehicle may enter one or more enemy-occupied hexes during the MPh—although at some risk, and perhaps at additional MP cost. A vehicle which ends its MPh with MP remaining is assumed to use all those MP in that hex. Once a vehicle has moved to a new hex/hexside during its MPh (even if it is currently stopped or Immobile), it is still considered a moving target (To Hit Case J) to any Defensive Fire because it entered a new hex/hexside during that MPh (C.8). A vehicle may never move during the APh.

2.11 VCA CHANGES: The Vehicular Covered Arc is the CA (C3.2) of a vehicle based on the front of that vehicle. During setup and movement, care must always be taken to ensure that the VCA is clearly defined (along one of the six hexspines of its currently occupied hex) as it expends MP to change its hex/VCA. VCA can be changed only at the cost of one MP per hexspine change (two MP per hexspine change if actually in [not in bypass of] a building/woods/rubble or any combination thereof). Bog penalties for entry of difficult terrain are also applicable to VCA changes in that terrain if not also on a road (see Terrain Chart). A vehicle must move within its current VCA as it enters each hex *[EXC: Reverse Movement]*. For a vehicle to move directly to a hex outside its current VCA it must first expend one MP per hexspine changed to change its VCA within its currently-occupied hex, or use Reverse Movement. The MP expenditure for a change of VCA within a vehicle's currently-occupied hex must be announced separately for each hexspine change so that the DEFENDER may intervene to Defensive First Fire at the target at that point, although this alone would not qualify the vehicle as a moving target (C.8). A VCA can also be changed following a successful Motion Attempt (2.401), as a result of firing outside its CA during any fire phase (other than its own MPh; C5.1), or at the end of any fire phase in which it is still eligible to fire a turret/bow-mounted weapon (3.12 and C3.22).



EX: A moving tank in 3M3 with a VCA of L2-M2 must expend two MP in M3 in order to change its VCA two hexspines to N2-N3 so that it can move into N3 by expending one more MP in N3. Its VCA is now O3-O4 and it can enter either of those hexes, but instead it pays another MP to change its VCA one hexspine to O4-N4 so that it can move to N4.

2.12 STARTING: A vehicle not under a Motion counter must expend one MP to start movement before entering a new hex or changing its VCA during the MPh. Unless Reverse Movement (2.2) is declared, forward movement is assumed. The Starting MP expenditure is considered to take place in the currently occupied hex (thereby making it subject to Defensive First Fire in that hex although not as a moving target; C.8). A Starting MP expenditure is not necessary if entering from off-board because such units are assumed to have set up in Motion (A2.52).

2.13 STOPPING: A vehicle must expend one additional MP in its current hex to stop movement, unless it is ending its MPh under a Motion counter (2.4). If it stops (e.g., to fire or to fake fire), it may begin to move

© 2000 Multi-Man Publishing, LLC

again during that MPh if it has MP remaining, but must pay the Starting MP expenditure to do so. Even though stopped, the vehicle is considered a moving target if it entered a new hex/hexside during that Player Turn or began its MPh in Motion (C.8).

2.14 WRECK/VEHICLES: A vehicle *[EXC: motorcycle]* must pay one additional MP (or MF for a wagon) per wreck or vehicle (not motorcycle) in a hex (regardless of nationality) to enter that hex. This penalty is doubled to two MP per wreck or vehicle in the hex if the hex is entered via a road hexside while using the road movement rate, and can be doubled again for certain types of roads (see Note D of Terrain Chart).

2.15 MINIMUM MOVE: A Mobile vehicle may attempt to move just one hex per MPh into permissible terrain if the MP Entry cost of that hex is > the vehicle's printed MP allotment. This is done by declaring a Minimum Move attempt and moving into the new hex while expending all its MP allotment (other than any towing MP (C10.1)/any starting MP required in the hex being exited) as it does so, making any Bog (8.2) DR required for normal entry of that hex, and (if still Mobile) being placed under a Motion counter. VCA change or entry of a blocked One-Lane bridge or Sunken Lane, are prohibited to a vehicle during a MPh in which it attempts a Minimum Move. See 2.24 for Reverse Minimum Move. If the (now in Motion) vehicle wishes to fire, 2.42 applies. A vehicle which *stalls* (e.g., German Vehicle Listing Notes F and H, and Russian Note M in Chapter H) while attempting to start may not claim a Minimum Move during that Player Turn.

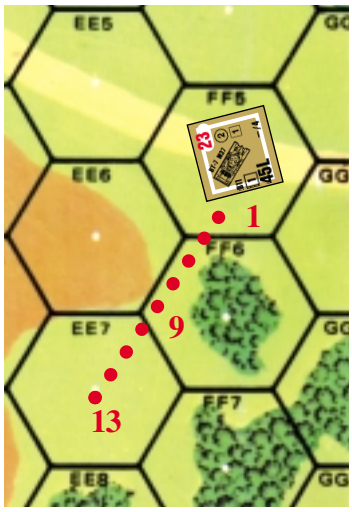
2.16 ROAD RATE: The $^1/_2$ MP rate for a motorized vehicle crossing a road hexside is doubled to one MP if the vehicle is a BU (5.2) AFV.

2.17 DELAY: The expenditure of MP without moving is termed Delay and can be used only while the vehicle is stopped or using platoon movement (14.21). This might be done to increase its MP expenditure in LOS of its target during that MPh before firing (so as to use To Hit Case C instead of Case C^1 or C^2), to change its TCA (3.12), or to draw enemy Defensive First Fire, or to use up part of its MP allotment while stopped before starting to move.

2.18 A vehicle is not prohibited from expending more MP to enter a hex than the minimum required, and may, as it enters a new hex, declare a higher-than-necessary MP expenditure.

2.2 REVERSE MOVEMENT: Occasionally a vehicle may wish to leave its present hex without directly entering a hex within its VCA, but cannot (or does not want to) change its VCA within its current hex. Reverse movement is then its only option. Motorcycles, and vehicles towing Guns or trailers, may not use Reverse Movement.

2.21 MP COST: Reverse Movement costs quadruple the normal MP entry cost for tracked vehicles, triple for trucks, and double for most armored cars. Exceptions to these Reverse MP classifications are listed on the reverse of the applicable counters in the form "REV × #" with "#" being the number used to multiply normal MP cost for Reverse Movement. If a MP multiplier or penalty were already in effect (such as doubled MP costs for VBM) for normal entry of a hex, the Reverse Movement multiplier would be applied to the total cost of entry of that hex, including any penalties/multipliers for any purpose other than stopping/starting movement.



EX: A stopped BT-7 M37 tank in 2FF5 with VCA FF4-GG5 uses VBM and Reverse Movement to back out of FF5 to FF6 and EE7. It costs the tank nine MP ((2 [VBM] × 1 [Open Ground] = 2 MP) × 4 [Reverse Movement] = 8 +1 [starting] = 9 MP)) to enter FF6 in Reverse and another four MP to back into EE7 (4 [Reverse Movement] × 1 [Open Ground] = 4 MP) since it cannot change its VCA in obstacle hex FF6 (2.33) unless it continues Bypass in that hex.

2.22 RESTRICTIONS: Any hex entered with Reverse Movement must be one of the two hexes which formed the rear vehicular Target Facing of the vehicle prior to that move, and the only hexside that can be Bypassed by that Reverse Move is the hexside joining those two hexes. Once backed into its new hex, it may change its VCA (barring other restrictions) within that new hex at the normal cost.

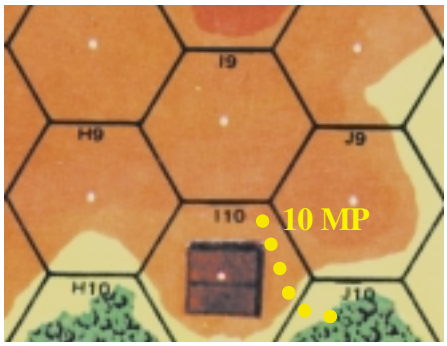
EX: Continuing the 2.21 example, the BT-7 M37 could not use VBM and Reverse Movement to Bypass hexside FF6-GG6. With its VCA at FF4-GG5 it could Bypass only along hexside FF6-EE6.

2.23 START/STOP: Unless Reverse Movement is specified upon expending a Starting MP, forward movement is assumed. A vehicle combining both forward and Reverse movement in the same MPh must pay a MP to stop and another MP to start again as it switches from one direction to the other.

2.24 REVERSE MOTION: "Reverse Motion" counters are provided in *WEST OF ALAMEIN*, the use of which enables a vehicle to end its MPh in Motion while using Reverse Movement *[EXC: NA if the vehicle is prohibited from using Reverse Movement]*, and also enables it to make a Reverse Minimum Move. When using Reverse Motion/Minimum-Move, the principles of and rules for Motion, Minimum Move and Reverse apply unchanged except for obvious differences due to the vehicle's direction of movement.

EX: Continuing the 2.21 example, assume the BT-7 M37 is in Motion in 2FF5 with VCA FF4-GG5 and decides to Reverse move into hill hex EE6. It will cost two MP to stop and again start movement, and 20 MP to reverse into EE6 (4 [Reverse Movement] × (1 [Open Ground] +4 [move to higher elevation] = 5) = 20) for a total MP expenditure of 22, plus one more MP to stop. Rather than spending the MP to stop, it could instead end the MPh in Reverse Motion—without expending any additional MP, since it does not have sufficient MP remaining to enter the next hex it desires to enter (2.4).

2.3 VEHICULAR BYPASS MOVEMENT (VBM): VBM enables vehicles (and animal-drawn transport) to move through a building/woods hex at a reduced MP (MF) cost without risking Bog penalties for movement through those obstacles. The MP cost of VBM is double that of the hex's non-obstacle terrain (usually Open Ground) per hexside traversed; any additional terrain cost in that hex (such as SMOKE or a move to higher elevation) is also doubled. The vehicle is moving around the obstacle within the hex—not through the obstacle. Therefore, the interior of each hexside traversed must be clear of any obstacle depiction to the depth of an edge of a unit counter for VBM to be usable. Hold a unit counter vertically so that the entire thickness of the hexside is just visible along the edge—if the other edge touches any obstacle depiction, VBM is not allowed along that hexside. Walls/hedges are considered extensions of hexsides for this rule. If players cannot agree on whether a hexside is obstructed, resolve the matter with a dr (as per A6.1). The hexside clearance measurement cannot be made until the VBM and all applicable MP costs are announced (and thus expended in the previously occupied hex/hexside if the move is subsequently not allowed). If the hexside clearance is insufficient, the vehicle must expend one extra MP to stop in its present position—even if it then proceeds to start movement again in another direction.



EX: A vehicle using VBM to enter 3I10 from J10 must pay ten MP ((4 MP [higher elevation] +1 MP [Open Ground] = 5) × 2 [VBM] = 10 MP).

EX: If a vehicle were Bypassing the woods in J10 along the J10-I10 hexside (assuming there was room enough), another vehicle in I10 could not Bypass the building along the I10-J10 hexside.

© 2000 Multi-Man Publishing, LLC

2.31 RESTRICTIONS: VBM is not allowed in any rubble hex, across any hexside connected directly to a roadblock hexside (B29.4), or in any hex containing a ground-level terrain Blaze. VBM is allowed only in woods/building hexes and only to Bypass those specific obstacles—not other terrain depictions which may be in the same hex. VBM is not allowed along a hexside already containing another Bypass vehicle/wreck along that hexside.

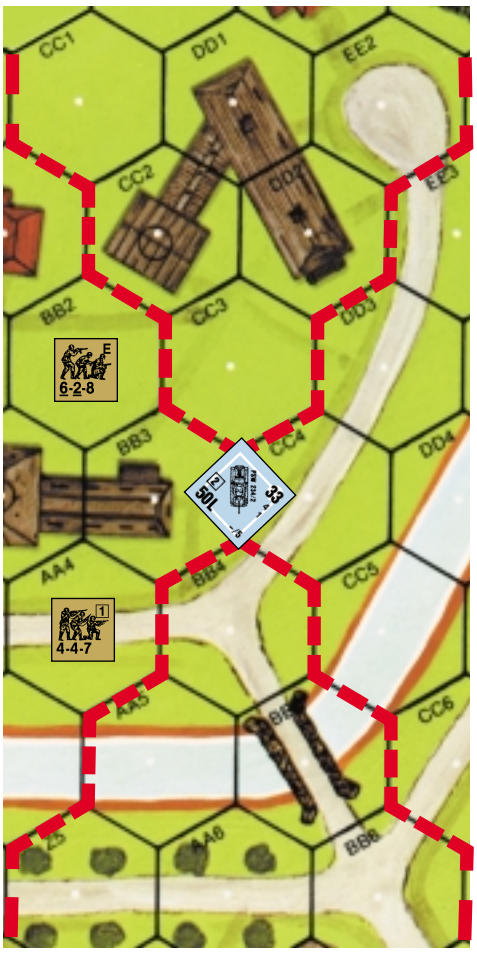
2.32 VCA & TARGET FACING: A vehicle in Bypass has a different (and much more restrictive) VCA because it is now traversing a hexside rather than a hex. When using VBM, the vehicle counter is placed on the hexside being traversed so that it straddles the hexside, with the VCA corner of the counter resting on the vertex of that hexside in the direction the vehicle is facing. This vertex is called the Covered Arc Focal Point (CAFP) and is the point in the hex where all fire to and from the vehicle is traced while using VBM or Stationary Bypass in that hex. The Bypass VCA consists of the hex directly in front of the vehicle formed by that vertex, the hexes of the two diagonal rows of hexes that converge on that hex, and all the hexes between those two converging diagonal hex rows. The Bypass VCA also doubles as the VBM front Target Facing as per the following diagram. The Target Facing of a hit vs a vehicle in Bypass is based on the hex *it originated from (not the target hexside crossed as per normal Target Facing; 3.2)*; to score a rear hit the shot must have originated from a hex in the target's rear Target Facing. If a firer is itself on a CAFP that separates two adjacent Target Facings of the Bypass target, that fire is resolved as per C.5B. Any shot not originating from within a Bypass Target's front or rear Target Facing is considered to strike it in the side Target Facing (e.g., a hull hit from a weapon in the hex being Bypassed).

2.321 BYPASS TCA: A vehicle in Bypass has only four points on which to base its TCA: The CAFP (Front), the reverse of the CAFP (Rear), and the two hexes it is straddling (Side)—at least one of which will be largely obstructed by the obstacle it is Bypassing. A side TCA is shown by placing the TCA counter so that it points at one of the two side corners of its AFV counter. A TCA based on a Bypass side Target Facing covers a potentially much larger Field of Fire (all hexes on that side of the firer between the front and rear Target Facings) and consequently must pay appropriate Case A (C5.1) penalties for firing within this enlarged CA *even if it does not change its TCA [EXC: a weapon firing with an already earned Target Acquisition DRM (or, in the case of a CMG/IFE/Canister, vs the same Known target in the same Target Facing as last fired on) does not have to add Case A to fire within its current CA]*. A TCA change to or through a Bypass side Target Facing must suffer an additional +1 To Hit DRM in addition to normal Case A DRM. A vehicle in Bypass must measure its Case A DRM in terms of Target Facings moved by the TCA, not hexsides. (See first Example in Right column.)

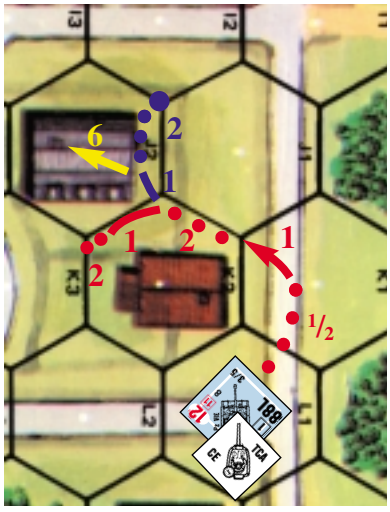
2.33 VCA CHANGES: VCA changes by a vehicle using VBM are limited to the two hexsides of the VCA at the CAFP (i.e., the two hexspines of its CAFP which are not straddled by its counter). Therefore, a Bypassing vehicle desiring to move must either move (outright or via Bypass) into the hex which forms the base of its VCA, or pay one MP for a VCA change to continue Bypass along a connecting hexside of that CAFP (other than the one it just traversed), or use Reverse Movement. Even a fully-tracked CT AFV may not enter the obstacle of a hex it is currently Bypassing; it must first leave and re-enter the hex. A vehicle in stationary Bypass cannot change its VCA to take a shot; i.e., it can only change VCA if exiting that Bypass hexside. A VBM vehicle making a VCA change cannot voluntarily end its MPh in that position; it must move to the next CAFP or reverse into a new hex to its rear. If Defensive First Fired upon or Immobilized before it can complete its move, it is considered to be at the same CAFP and Target Facing last occupied before the VCA change. (See second Example in Right column.)

2.34 STATIONARY BYPASS: Unlike Infantry, a vehicle may voluntarily end its MPh using Bypass. It remains straddled across the hexside last traversed, with the CAFP defining its position within the hex, its VCA, and its vehicular Target Facing. Its ability to change its VCA is limited as per 2.33.

2.35 FIRING RESTRICTIONS: A vehicle in Bypass may not fire any bow-mounted armament outside its current VCA since the vehicle is unable to readily change its VCA to take the shot. A TCA can be changed while in Bypass but that CA is considerably different (2.32).



2.321 EX: Hexes 23BB4, AA5, BB5, Z5, AA6, and BB6 form the first six hexes of the front Target Facing and VCA of the PSW 234/2 in Bypass at BB3. Hexes CC3, CC2, DD2, CC1, DD1, and EE2 form the first six hexes of its rear Target Facing. All other hexes shown are part of one of its two side Target Facings. To fire on the 4-4-7 in AA4, the AFV will have to change its TCA to the side Target Facing and pays a +3 To Hit DRM for Case A (+2 [ST] +1 [Change to Bypass side Target Facing] = +3). Should it switch targets to the 6-2-8 in BB2 it must again pay the +2 To Hit DRM for Case A (ST), even though it is still firing in the same side Target Facing. Had it continued firing on the 4-4-7 instead, there would be no Case A To Hit DRM because it had already acquired that target. If the PSW 234/2 had changed its TCA all the way from the front to the rear so as to fire on DD1, the Case A To Hit DRM would be +4 (+3 [ST TCA change of two Target Facings] +1 [TCA Target Facing change to/through side Target Facing] = +4).



2.33 EX: A CE moving PzKpfw VIE in 1L1 with VCA K1-K2 spends $^1/_2$ MP (shown in red) to enter K1 along the road, and therein spends one MP to change its VCA from J0-J1 to J1-K2. It then moves into K2 using VBM along hexside K2-J1 at a cost of two more MP. Its CAFP is K2-J1-J2. It may now spend one MP to change its VCA, plus two MP to continue VBM in K2 along the K2-J2 hexside, to reach its new CAFP K2-K3-J2 at a total cost of $6^1/_2$ MP; or it may leave the K2-J2-J1 CAFP become BU and enter the building in J2 at a cost of half its MP allotment (shown in yellow) and a Bog Check (8.21) with a +5 DRM, at a total cost of $9^1/_2$ MP; or it may spend one MP to change its VCA to J2-J1, which will allow it to Bypass into J2 for another two MP to reach CAFP J2-J1-I2 (shown in blue) at a total cost of $6^1/_2$ MP; or it may Stop, Start in Reverse, and use Reverse Movement into K1 for a total of $9^1/_2$ MP. It cannot attempt VBM in J2 along the J2-K2 hexside because that hexside is too close to the building depiction in J2 (2.3), nor can it use Bypass in J1 because J1 is not a woods/building hex.

© 2000 Multi-Man Publishing, LLC

2.36 PRC: All Fire vs units embarking or disembarking from a Bypass vehicle must be traced to the CAFP of the vehicle—not the hex center. Infantry loading onto a vehicle (or PRC disembarking from one) in Bypass must do so in the hex occupied by the vehicle. Even though a Bypass vehicle straddles a hexside it is never considered in both hexes; it actually occupies the hex containing the obstacle it is Bypassing and its CAFP (C.5B).

2.37 LOS: Fire to/from a vehicle in Bypass alters the LOS rules somewhat because of the need to trace fire to/from the CAFP instead of the hex center. The obstacle depiction in the firer/target hex can actually block LOS to/from outside the hex (or within the hex in the rare case of enemy vehicles in Bypass on different hexsides of the same hex) if it is crossed before reaching the CAFP. A wall/hedge hexside does not block LOS to/from its hex even if the firer/target is in Bypass on the opposite side of that hex; such a vehicle in Bypass on the other side of that hex could not claim Wall Advantage (B9.32), or deny it to a unit adjacent to that wall/hedge hexside.

2.38 TEM: A vehicle in Bypass is in the Open Ground portion of the hex and is therefore not entitled to any beneficial TEM for the woods or building it is Bypassing *[EXC: Residual FP (A8.2); also, in certain hexes (e.g., 2I9 or 3I1) a vehicle can be in Bypass of a building but still be in woods]*.

2.4 MOTION STATUS: Any Mobile vehicle (including a boat or amphibian) which has used its entire printed MP allotment during its MPh, without expending a MP to Stop (2.13) or Delay (2.17) at the end of that MPh, is considered in Motion and covered with a Motion counter. A vehicle may end its MPh in Motion without expending all of its MP only if it has insufficient MP remaining to enter the next hex it wishes to enter. A Motion vehicle (i.e., one covered by a Motion counter) receives no extra MP, but at the start of its MPh it does not have to pay the one MP Starting cost (2.12) and is considered a moving target during that MPh even prior to entry of a new hex. A vehicle's Motion counter is immediately removed when it starts movement in its next MPh or if the vehicle becomes Immobile. For a vehicle to not end its MPh in Motion status, it must always have one extra MP (beyond the total cost of the final hex entered) to expend as its Stopping MP (even if it means chancing an ESB DR to do so). A Motion tracked vehicle may use ESB but does not have to. A vehicle is marked with a Motion counter only before or after its MPh, not during it. A vehicle (and its PRC) which starts its Player Turn in Motion may not Prep Fire and must expend at least one MP (even if just to stop) during its MPh. A vehicle may not start a scenario set up onboard in Motion.

2.401 A Motion status attempt may be declared during the MPh of an enemy ground unit by any DEFENDING Mobile vehicle which makes a Motion attempt dr ≤ the number of MF/MP expended in its LOS by that unit during its MPh.[3] The enemy unit must be one that had not been in the vehicle's LOS during that Player Turn prior to entering it during that MPh. If a subsequent (free) LOS Check proves that the unit had been in LOS during that Player Turn after all, the Motion attempt automatically fails. A vehicle may attempt Motion status only once per enemy MPh and may not attempt it at all if already marked with a First Fire (or Final/Intensive Fire) counter. There is no penalty (including "?" loss) for failing a Motion attempt dr other than the inability to gain Motion status during that Player Turn. A vehicle which gains Motion status during the enemy MPh is marked with a Motion counter and allowed to freely change its VCA/TCA (provided it passes any required Bog Check DR as a result), but may still use Motion Fire (Case C[4]) thereafter. Even a vehicle in Motion may make a Motion Attempt dr in this manner so as to freely change its VCA/TCA at that time. In any case, a successful Motion Attempt results in neither Motion nor VCA change if any mechanical reliability DR (2.51) results in Immobilization or stall. If the vehicle stalls, this is treated as a failed Motion Attempt only.

2.41 TARGET CONSEQUENCES: Any Motion vehicle is eligible for the Case J To Hit (Motion Target) DRM when fired upon, *regardless of fire phase*. The +2 DRM also applies to a Motion/Non-Stopped vehicle when attacked by DC (C7.346), MOL (A22.611), OVR (D7.12), or CC (A11.5), but not to any other attack resolved on the IFT. A Motion vehicle is never considered a LOS Hindrance/TEM.

2.42 FIRING CONSEQUENCES: A Motion/Non-Stopped vehicle/its-Passengers must add the Motion To Hit DRM (Case C[4]; C5.35) when firing ordnance. All other types of FP from such a vehicle (including FT/canister) and/or its Passengers'/Riders' FP are halved as Motion Fire which is cumulative with any other FP modifications, such as AFPh Fire *[EXC: Thrown DC use +3 DRM instead (A23.6; C7.346)]* and Mounted Fire (6.22, 6.72).

2.5 EXCESSIVE SPEED BREAKDOWN (ESB): A tracked vehicle may attempt once per MPh (at any point during its move) to exceed its land MP allotment at the risk of Immobilization.[4] The maximum MP gain is limited to one-fourth (FRD) of the vehicle's printed MP allotment. A vehicle attempting ESB must state the number of MP it is trying to gain and make an ESB DR, adding a +1 DRM for each extra MP *(FRD)* sought *[EXC: Any tracked vehicle whose MP allotment is printed in red is especially prone to breakdown and consequently must add a +1 DRM for each MP (FRU) sought in an ESB DR]*. In addition, the ESB DR is modified by the nationality DRM of the vehicle's manufacturer (not its crew), as follows:

ESB DRM Table

U.S. (a), Czech (t)	0
Russian(r)	+1
British (b), German (g)	+2
French (f), Italian (i), Others	+3

Any Final ESB DR ≤ 11 is successful and gains the declared MP amount, which can be used in one or more hexes. If the Final ESB DR is ≥ 12, the vehicle is immobilized in/on its current hex/hexside (although it is still considered a moving target for the rest of that MPh/DFPh if it had entered a new hex in that MPh prior to attempting ESB or began its MPh in Motion).

2.51 MECHANICAL RELIABILITY: Each time an AFV having a red MP allotment expends a MP to start (or makes a successful Motion attempt; 2.401), its owner must make a DR; if a 12 is rolled, the AFV has suffered a mechanical breakdown and is immobilized.[5] If the owning player forgets to make this DR, the opposing player can thereafter call for it to be made at any time during that MPh as the AFV expends any MP. An AFV that suffers a Mechanical Reliability Immobilization is subject to Defensive First Fire (since it has expended a MP to start), but not as a moving target unless it had already entered a new hex/hexside during that MPh or started that MPh in Motion.



2.52 AXIS VEHICLES: All Axis vehicles *[EXC: motorcycles]* in North African (as defined in F11.2) scenarios set prior to October 1941 are assumed to have their MP allotments printed in red (2.5-.51).[5A] Hence even wheeled Axis vehicles are subject to Mechanical Reliability DR (2.51) during that time period.

2.6 ENEMY AFV: A vehicle cannot voluntarily stop or end its MPh in Motion in an enemy AFV's hex (whether Known or not) unless it can do so out of that AFV's LOS (i.e., while Bypassing a hexside opposite that of the DEFENDER's Bypass AFV), or unless it can, at the moment and position of entry into that hex, attack that AFV (regardless of its To Hit possibility) and be capable of destroying or shocking it with an Original TK or IFT DR of 5 (using a non-Depletable ammo type available to the vehicle). A vehicle thus barred from remaining in an AFV's hex may not attempt ESB in that hex.

2.7 ALL MP/MF EXPENDITURE: Any hex entry listed on the Terrain Chart as requiring *ALL* of a unit's movement capability (other than a Minimum Move which *must* end in Motion) still allows the unit any MP/MF necessary for starting (2.12), stopping (2.13), or towing (C10.1), but further movement is NA even if ESB or Gallop is declared.

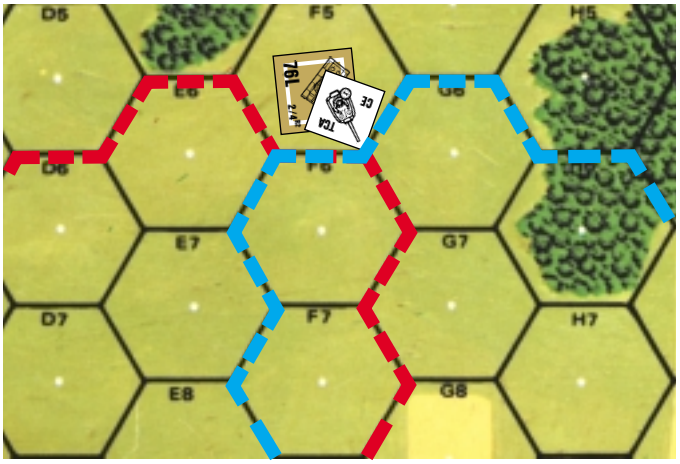
© 2000 Multi-Man Publishing, LLC

3. AFV COMBAT

Most of the mechanics for AFV combat are covered by the rules of ordnance in Chapter C.

3.1 COVERED ARC (CA): A vehicle possessing turreted armament actually has two CA: a Vehicular CA for movement and bow-mounted weapons, and a Turret CA for turret-mounted weapons. The C3.2 definition of CA is applicable to both but may be based on different points of reference, depending on the orientation of the counter.

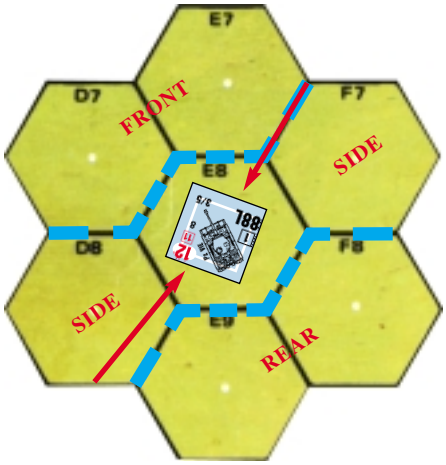
3.11 VEHICULAR COVERED ARC (VCA): The VCA is identical to the CA defined in C3.2, and is used for all bow-mounted weapons and vehicle movement, as well as determining Target Facing for any hull hit vs the vehicle.



EX: The VCA is outlined in red, the TCA is outlined in blue.

3.12 TURRET COVERED ARC (TCA): The TCA determines the Field of Fire of all turret-mounted weapons, and differs from the VCA only when a turret counter is placed on the vehicle with the Gun pointing toward a different hexspine than that of the vehicle counter. Should the TCA and VCA coincide and the vehicle is a BU CT (or CE OT) AFV, there is no need for a turret counter and it is removed. However, whenever a vehicle fires a turret-mounted weapon outside its VCA (To Hit Case A), the VCA is not changed (unless the vehicle uses the NT DRM application of Case A). Instead, a turret counter is placed so that the fired-on target lies within the TCA (see 3.51). The TCA may change as a result of firing a turret-mounted weapon outside its current TCA and the VCA may change for firing a turret/bow-mounted weapon outside its current VCA (Case A), or at the end of any friendly fire phase in which the AFV is eligible to fire (a turret-mounted weapon for TCA or turret/bow-mounted weapon for VCA) without using Intensive Fire (as per C3.22). The TCA may also change freely with each MP expended during the MPh. The TCA change must be announced as the MP are expended but can coincide with MP expended for movement, stop, start, or Delay purposes; i.e., the MP cost for a TCA change is not in addition to other MP expenditures. The MP expenditure required for a TCA change during its MPh is doubled if in a woods or building obstacle (not Bypassing those obstacles or on a road) or rubble hex (C5.11). For Narrow Streets see B31.12. The Target Facing of any turret/upper superstructure hit is based on the target's TCA—not its VCA.

3.2 TARGET FACING: When an AFV is hit it is necessary to determine the Target Facing of the AFV to determine what AF modifies the Modified TK#. Target Facing is determined as depicted in the diagram, depending on which target hexside is crossed by the firing unit's LOS. Note the difference in the procedure for determining Target Facing for a target in Bypass (2.32). If the LOS of the firing unit runs exactly along a hexspine of the target hex which determines Target Facing, the Target Facing is that least favorable to the attacker. If the fire originates from within the target hex (Case E To Hit DRM; C5.5) the colored dr of the To Hit DR determines the Target Facing: 1-2 Rear, 3-4 Side, 5-6 Front *[EXC: Bypass; 2.32]*. FT/MOL/DC attacks made from within the same hex attack the Rear Target Facing, even vs Bypass vehicles. In the diagram, the shot along the E7-F7 hexspine is vs the front Target Facing.

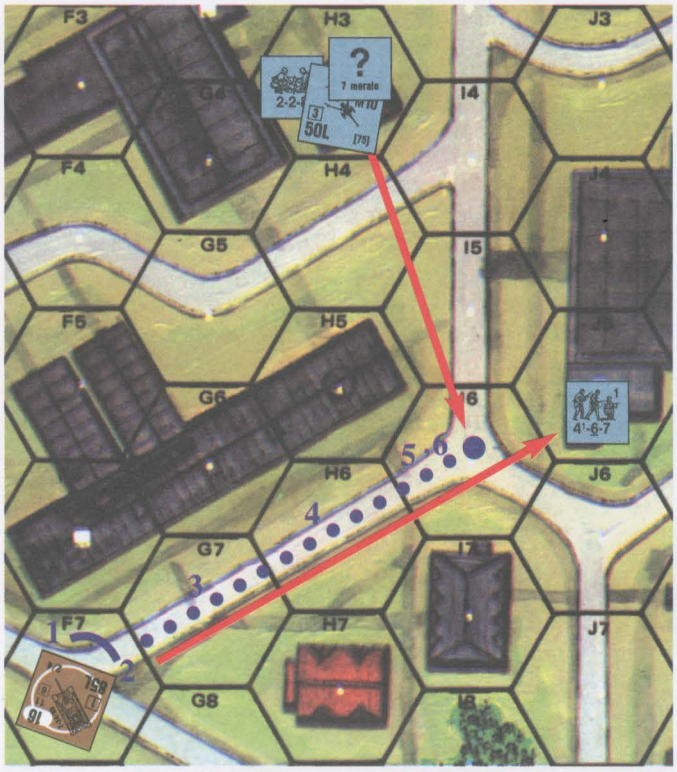


3.3 BOUNDING FIRST FIRE: Vehicles are not eligible for Opportunity Fire (A7.25), but unlike Infantry, a vehicle/its Passengers/Riders may move *and* also fire (or vice versa) in its MPh; this is termed Bounding First Fire. Any vehicle that fires during its MPh is using Bounding First Fire and is marked with a Bounding Fire counter *[EXC: if the only weapon fired did not exhaust its Multiple ROF]*. However, to use Bounding First Fire, any vehicular ordnance must use one of the Case C To Hit DRM (either Case C, C^1, C^2, or C^4; see C5.3-.33, C5.35). The vehicle can expend additional Delay MP while stopped (including at the outset of its MPh prior to movement) by announcing their expenditure one at a time. A vehicle may move again in the same MPh after using Bounding First Fire (or just stopping) provided it has sufficient MP (even to the extent of stopping and firing a Multiple ROF Gun again; see C2.24). The DEFENDER can intervene to attempt Defensive First Fire after the announcement of expenditure of any MP (even Delay MP), but must do so before the announcement of the next MP expenditure or of Bounding First Fire; the target cannot be forced to return to a previously occupied hex or CA after it has announced a MP expenditure that legally changes its position. A vehicle (including its PRC) with either a Prep Fire or Bounding Fire counter cannot fire during its AFPh.

3.31 MG/CANISTER/FT FIRE: Any non-ordnance weapon *[EXC: FT; Gyrostabilized CMG vs acquired target (11.13)]* using Bounding (or Bounding First) Fire has its FP halved. If a vehicle fires any weapon other than its MA during the MPh it may not fire its other weapons/PRC during the AFPh.

3.32 FINAL FIRE: Unlike Defensive First Fire, a vehicle using Bounding First Fire has no opportunity for an equivalent form of Bounding Final Fire. However, if the vehicle did not exhaust its Multiple ROF during its MPh, and did not fire any other weapons (including PRC) during its MPh, it may fire that Multiple ROF weapon (only) again once (C5.3) during its AFPh using the Case C To Hit DRM for ordnance, or halved FP for MG/IFE if not in Motion; or Case C4/quartered FP, if in Motion.

© 2000 Multi-Man Publishing, LLC



EX: It is the DFPh of the T34/85 in 1F7. It wishes to fire (using the Infantry Target Type) at the 4-6-7 in J5, so it must change its TCA one hexside from E7-F6 to F6-G7. Having done so, it may now fire at J5 with a +1 DRM for CASE A due to changing a T Type Gun one hexside, a +1 DRM for being BU, and a +3 DRM for terrain (Case Q).

During its MPh (shown by the blue dots) the T34/85 starts, changes its VCA to F6-G7, and moves to I6—expending a total of five MP before stopping. The 6th MP for stopping is the second MP expended in the LOS of the hidden AT Gun in H3 with a H4-I4 CA. The AT Gun immediately fires at the tank, with a +3 DRM for case J[1], before the tank can announce a Bounding First Fire attack on the 4-6-7 in J5. Although the AT Gun hits the tank, it does not penetrate its thick frontal armor. However, it did roll low enough on the colored dr of the To Hit DR to retain a Multiple ROF. The tank must now make an unenviable decision. If it uses Bounding First Fire to fire on the now concealed AT Gun after first expending a MP to change its CA, it must use the +5 DRM of Case C[1], plus Case I (BU), Case K (Concealed, C6.2) and Case Q (TEM), making a hit all but impossible (C3.6). Even if the tank were to roll a 1 on the colored dr of its TH DR and retain another shot, its To Hit chances remain negligible especially since it cannot acquire the concealed Gun. Spending an additional (Delay) MP to increase its stay in LOS of the target to 4 MP allows it to use the +4 DRM of Case C, but also allows the AT Gun to improve its next To Hit attempt by switching to Case J (instead of J[1]) and would allow the AT Gun a potential of two more shots (one per MP expended) against the stopped tank (C6.17) if the AT Gun retains its Multiple ROF.

Should the tank start up (7th MP) and change its VCA to J5-J6 (8th MP) in an attempt to move out of LOS (via J6 and K6) it could be fired on through its more vulnerable side Target Facing and/or in J6 (9th MP).

Starting up (7th MP) and moving toward the AT Gun with the intention of an OVR attack has the advantage of preserving the front Target Facing, but increases the penetration capabilities of the AT Gun (C7.24) and allows it as many as five (1: start up; 2: change CA; 3: enter I5; 4: enter I4; 5: enter H3) more potential shots (Multiple ROF C2.24; Intensive Fire C5.6; OVR Prevention; C5.64). All of which is a moot point since, even with a maximum ESB chance, the tank lacks the 22 MP necessary [8th MP to change VCA to H5-I5, 9th MP to enter I5, 10th MP to enter I4, 18th MP to enter H3 obstacle, and 22nd MP for OVR] to make the OVR (7.1).

Failing to do anything and ending its MPh accomplishes nothing because the AT Gun can continue firing at it during the ensuing DFPh as long as it retains its Multiple ROF. The safest solution is to spend its 7th MP to start in reverse, and its 8th-11th to Reverse (2.21) back to H6 and out of LOS. The AT Gun may fire at it again in I6 before it leaves the hex because it expended another MP in I6 to start (C6.17).



3.4 ARMOR LEADERS: Infantry leaders have no effect on vehicular or Gun performance. However, a special class of leaders known as Armor Leaders can affect vehicular/vehicular Gun performance, although they have no effect on Personnel or non-vehicular Guns *[EXC: either an Armor or a Passenger leader can direct a FG consisting of its CE halftrack/Carriers and Passengers/Infantry/Cavalry; see 6.64-.65]*. An Armor Leader is depicted in counter form by the silhouette of an exposed tank commander with rank, and a Strength Factor ranging from 8-1 to 10-2.

3.41 An Armor Leader is considered inherently present in the particular AFV his owner assigns him to, and his presence is noted on a side record. The Armor Leader counter remains out of play until the owner needs to use his morale/leadership factor to verify/avoid a result even if the AFV is CE (a normal CE counter is used to hide the true identity of the Armor Leader). The Armor Leader's morale/leadership factor may be used both before and after he is revealed.

3.42 The inherent crew of a vehicle always has the same Morale Level as any Armor Leader in that vehicle. Should the Armor Leader pass/fail his MC/TC, the crew passes/fails also; a separate MC/TC DR for each is never made.

3.43 An Armor Leader affects only its own vehicle/crew (even a captured vehicle) and ceases to exist once the crew takes counter form. Should that particular vehicular crew counter reoccupy a vehicle, the Armor Leader will once again exist in that vehicle.

3.44 The leadership modifier of an Armor Leader can be used only to modify a *vehicle's* MA DR (To Hit if ordnance; IFT otherwise), OVR DR, CC DR, HD Maneuver dr (4.22), halftrack FG (3.4), and Bog Removal DR. An Armor Leader cannot modify non-OVR MG/FT (unless MA) attacks, but neither does his use of an AAMG prohibit application of his leadership to other uses. Being BU does not void an Armor Leader's effects, although BU penalties (Case I To Hit DRM) still apply. An Armor Leader's negating a positive DRM of any kind is not sufficient to allow his vehicle to Interdict.

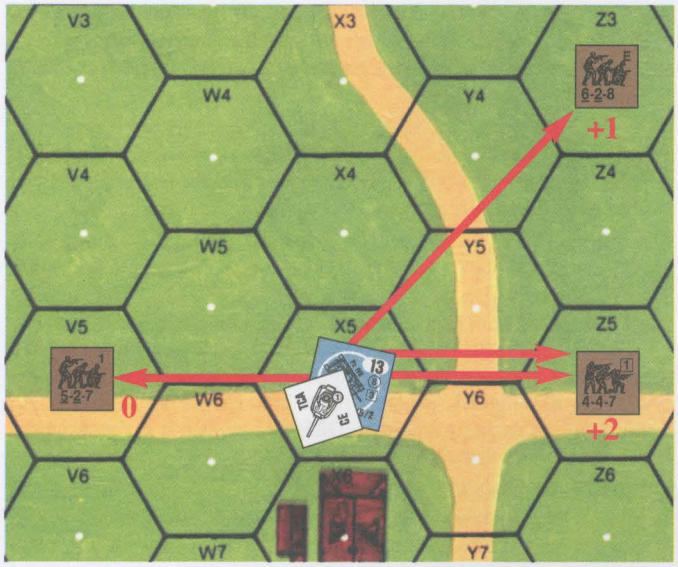
3.45 INEXPERIENCED CREWS: A SSR may specify certain armed vehicles to have Inexperienced Crews. Each such crew is treated as if it contains an inherent 6+1 Armor Leader, which is not shown in counter form. Usage of this "quasi-" Armor Leader is the same as for any normal Armor Leader *[EXC: his leadership modifier must be used whenever it is optionally usable by a normal Armor Leader; and the quasi-Armor Leader can never be eliminated or removed from its crew]*.

3.5 VEHICULAR MG/IFE FIRE: The MG/IFE armament of a vehicle, unlike a SW counter (A9.2), may make only one fire attack per Player Turn unless it is the vehicle's MA with a specific Multiple ROF, in which case it and its ROF will be listed as the MA in the lower left-hand corner of the counter.[6] *[EXC: RMG/CMG/AAMG FP can be used more than once per Player Turn if counting their potential use in CC; see A11.62 for use of AFV MG in CC. MG/IFE may also be used more than once by vehicles making multiple OVR attacks (7.14)]*. Non-CC vehicular MG fire is limited to the same fire phase (A.15) as the vehicle's other weapons or that of its PRC; if any weapon is fired from a vehicle, the remaining weapons must fire in the same phase or forfeit their non-CC fire attack opportunity for that Player Turn *[EXC: Bounding (First) Fire; 3.31-.32]*. The FP of a vehicle's various MG/IFE armaments may all be added together for one attack (assuming the target lies within their respective CA), or fired separately at different targets [Mandatory FG (A7.55) applies]. If fired together in one attack, the worst applicable CA DRM of any participating MG/IFE (3.52) applies to the total attack. The target can be the same unit attacked by the MA or a different target altogether. It makes no difference which weapon fires first. A vehicle may use MG fire on a target it cannot affect (e.g., to check the LOS before committing his MA to fire). See also 3.52-.54 and BU; 5.2.

3.51 MAINTAINING CA: Once a vehicle fires any turret-mounted weapon, any of its other turret-mounted weapons which fire within the current respective CA must pay the same CA Change penalty as the first weapon which fired. If, after firing, another turret-mounted weapon (or the MA which has retained a Multiple ROF) wishes to fire at another tar-

© 2000 Multi-Man Publishing, LLC

get outside the current TCA, the Case A TH DRM would be applicable based only on the move from the current TCA to the new TCA (C5.12) but only if the preceding shot(s) were taken at a Known enemy unit; otherwise no further change in TCA is allowed during that phase. These same principles also apply to bow-mounted weapons if changing the VCA to fire. If the VCA is changed, the TCA changes the same number of hexspines while retaining its position relative to the VCA. Any further changes of the TCA incurs normal TCA Case A DRM in addition to the NT Case A DRM of the VCA change *[EXC: Bounding First Fire does not pay CA change DRM (C5.13) nor does it prevent further changes in TCA/VCA]*. Once any vehicular weapon fires, its other weapons may fire in that phase only from that same hex *[EXC: OVR; and MA retaining a Multiple ROF may fire again from another hex if the previous shot(s) were Bounding First Fire]*.



EX: It is the German PFPh and the CE Pz IVH in 19X5 with a VCA of X6-Y6 and a TCA of W6-X6 is about to pick its targets. The German wants to fire at all three Known Russian units so he decides not to combine any of his MG factors and to attack each target separately. He starts by using his AAMG vs the 5-2-7 because it pays no DRM for fire outside its CA (1.83) and its use has no effect on the tank's other weapons. He decides not to fire his BMG because to do so he must change his VCA and that would require penalizing the first shot of all CA-restricted weapons firing as NT Gun Types rather than T Types (C5.11). He now decides to fire his CMG vs the 4-4-7 in Z5 but must pay a +2 DRM due to the two hexspine change in its TCA to Y6-Y5 (C5.1). The attack fails to harm the 4-4-7 so the tank fires his MA against the same target—again with a +2 DRM (but this time to the TH DR; 3.51). However, the TH DR contains a 1 on the colored dr so the tank maintains its Multiple ROF. The tank could now fire on the 4-4-7 with a -1 Acquisition TH DRM but decides against that and changes its TCA one more hexspine to X4-Y5 where it can fire on the 6-2-8 with a +1 Case A To Hit DRM (3.51 & C5.12). Assuming it again retains its Multiple ROF, it may fire on the 6-2-8 again with no Case A DRM (C5.12) and a -1 Acquisition TH DRM or it may change its TCA again—say two hexspines to W5-W6, where it may attack the 5-2-7 with a +2 Case A To Hit DRM.

Using the same diagram, assume the tank changes its VCA two hexspines to X4-Y5. As a result, the TCA is now at Y5-Y6. If the BMG fires on Z3—it must do so with a +4 DRM (NT Gun Type; C5.11). If the TCA is also to change to X4-Y5 in order to fire at the same target, it must do so with a +5 DRM (+4 [two hexspine change with NT Gun Type] +1 [further TCA change from Y5-Y6 to X4-Y5 with a T Gun Type]).

Now assume the tank changes its VCA from X6-Y6 to Y5-Y6, but the TCA changes from W6-X6 to W5-W6. The BMG would fire with a +3 Case A DRM, any turret-mounted weapon would fire with a +5 Case A DRM (+3 [one hexspine change for NT Gun Type] +2 [two further TCA hexspine changes for T Gun Type] = +5).

Lastly, assume the tank changes its VCA from X6-Y6 to Y5-Y6, but the TCA remains at W6-X6. The BMG would fire with a +3 Case A DRM, but any turret-mounted weapon would fire with a +4 Case A DRM (+3 [one hexspine change for NT Gun Type] +1 [one further TCA hex-spine change for T Gun Type]).

3.52 Any BMG/CMG/IFE firing outside its current respective CA must add a DRM to its IFT DR equal to the pertinent To Hit DRM of Case A (Bow MG = NT, CMG = T or ST depending on Gun Type; 1.3). A vehicle which uses MG Bounding First Fire must use half FP instead *[EXC: Gyrostabilized CMG vs Acquired Target; 11.13]* because a Bounding First Firer must always fire within its current CA (C5.13).

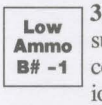
3.53 The Case B To Hit DRM does not apply to vehicle MG; the FP of any MG firing during the AFPh is halved instead, unless it is MA attempting a To Kill DR as ordnance (A9.61).

3.54 vs AFV: A vehicular-mounted MG may not attempt a To Kill attack unless it is the vehicle's MA. Another MG may never substitute for the listed MA of a vehicle.

3.6 FT: Vehicular-mounted FT are often more powerful than the Infantry SW variety of A22 and may have more FP, range, and different X# as depicted on the counter, but otherwise work the same *[EXC: Motion Fire; 2.42]*. Case A To Hit DRM apply as IFT DRM unless using Bounding First Fire (C5.13).



3.7 MALFUNCTION: Whenever a vehicle fires, that armament is subject to breakdown. A printed B# < 12 applies only to the MA unless Vehicle Notes specify otherwise. Breakdown Numbers are not printed on a vehicle unless the armament is prone to malfunction and has a B# < 12 or a X#; otherwise a B# of 12 is inherently assumed. Such ordnance malfunctions on an Original To Hit DR of 12 and MG/FT/IFE malfunctions on an Original IFT/CC DR of 12. However, unlike SW malfunction (A9.7), a vehicle cannot simply be flipped over to reveal a malfunction side because a vehicle is often still capable of movement/fire of other weaponry. Instead, a Gun, MA, SA, or MG Malfunction counter (of which there are three main types; BMG, CMG, AAMG) is placed on the vehicle until the weapon is repaired. Repair of each malfunctioned weapon can be attempted once per RPh with a separate dr for each malfunctioned weapon by any inherent crew that is not shocked or stunned *[EXC: Repair of an AAMG requires a CE crew or Hero Rider]*. A dr of 1 repairs the weapon and removes the Malfunction counter. A dr of 6 disables the weapon permanently and causes the malfunction counter to be flipped over to the Disabled side. A dr of 2-5 has no effect. Any vehicle whose MA and all Secondary Armament (if any, as per Vehicle Listing) are all disabled is immediately Recalled (5.341) unless that vehicle has Passenger/Towing capability.



3.71 LOW AMMO B# (B#): Some armed vehicles carried such a small ammunition load that Ammo Depletion must be considered even within the limited time frame of ASL scenarios.[7] Such vehicles have a circled B# (e.g., B ⑪) This symbol represents the possibility of normal malfunction plus the possibility of Ammo Depletion. A Gun with a B# malfunctions on an Original 12 To-Hit/IFT DR and suffers Low Ammo on any other Original To-Hit/IFT DR ≥ the B#. A Low Ammo result includes all ammo types the vehicle is allowed to use, as per its Vehicle Listing and the scenario date. A vehicle suffering from Low Ammo is marked with a Low Ammo counter, which changes the original B# to an X# (as per A.11) and creates a new B # one less than the Original B#.

EX: An IS-3 tank has a B ⑪ signifying its limited ammo capacity. If it rolls an Original TH DR of 12, the MA will malfunction normally. If it rolls an Original TH DR of 11 it is marked with a Low Ammo counter. Thereafter, any Original TH DR of 11 or 12 will Disable the MA, resulting in Recall (3.7); any Original TH DR of 10 will malfunction the MA normally—leaving it subject to repair.

© 2000 Multi-Man Publishing, LLC

4. TERRAIN MODIFICATIONS TO ANTI-VEHICLE FIRE

4.1 TERRAIN BENEFITS: The TEM occupied by a target vehicle is added to either the To Hit DR (as Case Q) of any ordnance shot against it when using the Vehicle or Infantry Target Type (C3.31-.32), or to the IFT DR of any Area Target Type (C3.33) *[EXC: if the target is HD to that attack; 4.2]*. LOS Hindrance DRM are *always* added to the To Hit DR. There are also several other ways that terrain can affect anti-vehicle fire.

4.2 HULL DOWN (HD): HD is a term used to describe any situation where-in the LOF to the bottom half of a vehicle is blocked by terrain, making that portion of the target incapable of being hit by Direct or Small Arms/non-ordnance *[EXC: DC; C7.346]* fire. A vehicle qualifying as a HD target is considered hit by Direct Fire only if that hit results in a turret/upper superstructure hit (C3.9). A HD target may not also claim a Case Q TH DRM but it may claim a Case Q TH DRM in lieu of HD status. HD status does not apply to a vehicle fired on by Indirect Fire, although the TEM of a wall that would make such a vehicle HD to Direct Fire might count as a reduced TEM for Indirect Fire (see C1.52). A target is never considered HD to any attacking unit qualified to attack its Aerial AF.

4.21 WALL/ROADBLOCK: A vehicular target fired on by Direct Fire through a wall/bocage/roadblock hexside that would affect that fire with a +2 or +1 TEM (see B9.3-.36 and B9.5) is instead considered HD to that fire.

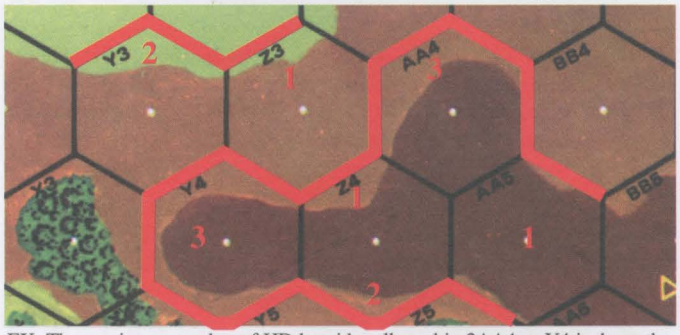


4.22 HEIGHT ADVANTAGE: The +1 Height Advantage TEM vs Direct Fire (B10.31) also applies to vehicles, but only if they are not HD to the firer. A vehicle may become HD to Direct Fire from an elevation at least one level lower only by declaring a HD Maneuver Attempt during setup, or during its MPh by expending two *extra* MP either upon entering a hill Crest-Line hex or *after* changing VCA in such a hex. The vehicle's owner then makes a dr to determine the extent of its HD protection, using the following cumulative drm as applicable: +2 if the vehicle is a CT Russian AFV; +1 if the vehicle is BU; +x for that vehicle's Armor Leader modifier; and -1 if making the attempt during setup. If successful, the owner places an appropriate HD counter beneath the vehicle so as to mark the applicable hexsides. Any Defensive First Fire prompted by a HD Maneuver MP expenditure must await the outcome of the HD determination dr before being resolved. Regardless of the outcome of the HD Maneuver Attempt, the vehicle must then immediately end its MPh by expending a Stop MP if still Mobile.

HD MANEUVER ATTEMPT

Final dr	Result
≤ 1	≤ 3 lower-level contiguous Crest Line hexsides of present hex are HD
2	≤ 2 lower-level contiguous Crest Line hexsides of present hex are HD
3	One lower-level Crest Line hexside of present hex is HD
≥ 4	No Effect

The maximum number of HD hexsides allowed to a vehicle is never > either three hexsides or the number of contiguous, completely-lower-level Crest Line hexsides in that hex (whichever is less). A vehicle in Bypass may only become HD behind the hexside it straddles and the two adjoining hexsides.



EX: The maximum number of HD hexsides allowed in 2AA4 or Y4 is three, the maximum allowed in AA5 or Z3 is one, and the maximum in Y3 is two. Z4 can be HD on two hexsides if those hexsides are Z4-Y5 and Z4-Z5. The hexsides through which the vehicle can he considered HD are shown with red bars. Now assume that a tank begins its MPh in X3, expends one MP to enter Y3 and an additional two MP for a HD Maneuver Attempt, and a fourth MP to Stop. The entry of Y3 brought the tank into the LOS of an AT Gun in Z2. If the AT Gun announces a Defensive First Fire shot at the tank upon entry of Y3, and before declaration of the HD Maneuver Attempt, it may fire on the tank without it being HD using the Case J^2 TH DRM for fire vs a moving vehicle with ≤ one MP in the firer's LOS, and a +1 HA TEM. However, if it waits for the HD Maneuver Attempt declaration before firing (in order to qualify for TH Case J or J^1), the target will be considered HD if the maneuver attempt is successful. The tank cannot expend three MP at once to both enter Y3 and attempt a HD Maneuver; the entrance and HD Maneuver expenditures are separate cases announced at different times.

4.221 A vehicle whose HD Maneuver Attempt was successful is marked with a HD counter depicting which of its current lower-level Crest Line hexsides (of the vehicle owner's choice) it is now considered HD behind. Any Direct Fire from an elevation *at least one level lower* that crosses one of these hexsides is considered against a HD target. Once placed, a HD counter may not be moved (although the vehicle's TCA may be), and is removed immediately if the vehicle changes VCA, expends a Start MP without Stalling or goes into Motion (2.401). A vehicle being set up in a hill Crest Line hex must make a HD Maneuver attempt immediately after it sets up if it wishes to possibly start the game HD, and after that Attempt may not be "reset-up" in another hex.

4.222 A vehicle is never considered HD due solely to Height Advantage across a cliff, Double-Crest, or Abrupt Elevation Change hexside.

4.223 HD FIRER: Non-MA bow-mounted weapons cannot be used against a target if the firing vehicle is HD to that target's position.

4.3 UNDERBELLY HITS: As an AFV crosses a wall/bocage hexside (not via a road/breach) or exits a gully/stream, DEFENDING ordnance within six hexes of the hex being entered, at the same level as (or lower than) that hex, and within that AFV's VCA (or "rear" VCA if the AFV is using Reverse movement), may (if otherwise allowed) use the Vehicle Target Type or a LATW TH Table to attempt an Underbelly Hit. Such Defensive First Fire is conducted after the AFV expends the MP to cross-the-hexside/exit-the-gully but before it enters the next hex (and thus precedes any OVR vs that hex); if the firer is in the hex being entered, TH Case E does not apply. The firer's LOS is traced to a specific vertex (C.5C) of the hexside being crossed (ATTACKER's choice *[EXC: if using VBM; 2.32]*, though once he chooses the vertex he may not change it vs another shot or to affect LOS). If the firer has no LOS to that vertex, he does not qualify for an Underbelly Hit and his shot is assumed to have missed (A6.11 applies). If the firer does have a LOS to that vertex, any such hit that would normally be a turret hit is instead an Underbelly Hit and uses the Aerial AF (C7.12). A hull hit is treated in the normal manner. If the firer has Bore Sighted the Location being *exited*, that DRM applies to his TH DR.

4.31 The ability to make an Underbelly Hit does not itself prohibit a Deliberate Immobilization attempt (C5.7). A vehicle immobilized or destroyed by a hit is left in the hex it was entering, but is no longer considered "belly up" after resolving all shots at it allowed by that MP expenditure.

4.32 Case Q/R TH DRM are based on the hex being entered. A wall/bocage being crossed does not add its TEM to the TH DR.

4.33 Underbelly Hits (and Deliberate Immobilization attempts) are NA until after the AFV has passed its crossing/exiting Bog DR.

4.34 Underbelly Hit attempts are NA vs a vehicle Breaching bocage (B9.541).

© 2000 Multi-Man Publishing, LLC

5. INHERENT CREW



5.1 All armed vehicles are manned by an Inherent crew which is not represented by a crew counter until it leaves the vehicle. While inside an AFV, the crew checks morale with a Morale Level equal to that of its nationality's best unbroken elite Infantry MMC; Inherent crews of unarmored vehicles take MC with a Morale Level equal to that crew nationality's best unbroken 1st Line Infantry. *[EXC: Armor Leaders (3.42) & Inexperienced Crews (3.45).]* All unarmed vehicles are manned only by an Inherent Driver who never leaves the vehicle and is never treated as a crew. Whenever a crew leaves its vehicle it becomes a vehicle-crew counter with a FP of one and often a lower morale. A vehicle-crew counter has all the capability of an infantry-crew counter (A1.123), other than its lower Strength Factor, while still retaining its vehicle crew capabilities (A21.22). All rules dealing with Inherent crews also apply to Temporary crews (A21.22) unless stated otherwise.





5.2 BUTTONED UP (BU): An Inherent AFV crew must be defined as being either CE (Crew Exposed) or BU (Buttoned Up). Any CT AFV beneath a BU counter or *not* topped by a CE counter is considered BU. A BU crew is generally not Vulnerable *[EXC: see 5.311 and A7.211]*. A BU CT AFV firing its MA (or SA [Secondary Armament, as per Chapter H Vehicle Listings]) as ordnance must add one to that TH DR (Case I; C5.9). Being BU doubles the $^1/_2$ MP road movement rate of an AFV, but otherwise has no detrimental effect on an AFV's (or its Inherent crew's) actions/abilities *[EXC: see 5.3 and A10.532; at night see E1.14 and E1.52]*.





5.3 CREW EXPOSED (CE): An OT AFV is always considered CE unless beneath a BU, Shock, or Stun counter. A CE counter must be on top of a CT AFV in order to use its AAMG *[EXC: a hero Rider; 1.83]*. An OT AFV must be CE to use any weapon other than a bow-mounted MG/FT. A CE AFV may enter/exit a building *obstacle* only if it pays Open Ground costs to do so or is moving entirely within a Factory (B23.742) but can become CE once inside a building. However, being CE makes an Inherent AFV crew Vulnerable to Collateral attacks (D.8).

5.31 CE DRM: A CE counter represents the Vulnerability of an AFV crew to Collateral Attacks. A CE crew is normally entitled to a +2 DRM due to the partial protection afforded by the AFV but some AFV receive (according to their Vehicle Notes) more protection (or less) depending upon the Target-Facing/Aspect (C3.9) through which they are fired on. Non-Fire Lane Residual FP attacks receive the CE DRM that applies to the Side Target Facing. An OT AFV's normal (usually +2) CE DRM can be reduced by Elevation Effects as per 6.61, and by Air Bursts (B13.3); see 5.311. The CE DRM is not cumulative with any positive TEM.

5.311 UNPROTECTED CREWS: The Inherent crew (as well as each Passenger) of a vehicle receiving fire (including Fire Lane Residual FP) *[EXC: Sniper attack]* through an unarmored Target Facing/Aspect (C3.9; including any OT AFV receiving either Air Bursts or fire from a higher elevation whose elevation advantage is > the range [5.31])—and, vs mines, the PRC of any AFV with a hull AF of 0 [B28.43]) is Vulnerable even if BU, and receives no (or a reduced; 5.31) CE DRM. Consequently the crew is not susceptible to Stun/Recall from such an attack; it is instead subject to PTC/MC/K/KIA results. If it breaks it must rout from the vehicle using normal Infantry rout procedures *[EXC: it expends all its initial-RtPh MF to be placed beneath the vehicle]*. The vehicle automatically Stops (no Stop MP is spent) when its crew breaks. If the crew routs or is eliminated, the vehicle is marked with an Abandoned counter. If an OT AFV's crew would receive a CE DRM *reduced by Elevation-Effects/Air-Bursts* to < its normal CE DRM, that AFV is instead treated as unarmored and the attack vs it—but not vs its PRC—is resolved (with no Air Burst TEM) either as per A7.308 (for non-ordnance/Indirect-Fire-HE) or on the proper TK Table using the pertinent Unarmored Vehicle TK#. C3.71 also applies if a HE CH occurred.

5.32 ORDNANCE: A CE crew cannot be targeted by ordnance (D.6).

5.33 CE MOVEMENT: Vehicle CE counters may be placed or removed (except due to combat results) only during the owner's MPh/APh, but may not be both placed and voluntarily removed (or vice-versa) during the same phase. Such placement/removal of a vehicle CE counter cannot occur in a MPh *following* Prep or Bounding First Fire by that vehicle/its PRC, nor between the time it is named as a target and the time all fire against it allowed by its last MP expenditure is resolved, and does not constitute movement for purposes of moving target/firer penalties. An AFV's crew and Passengers always become CE or BU together *[EXC: those that are broken must remain BU until they rally or disembark; an OT AFV's pinned CE Passengers must BU (A7.821) but its pinned/CE crew does not (A7.82)]*.



◊


5.34 STUN: An AFV CE Inherent crew checks morale as per 5.1. If a CE AFV crew that qualifies for its normal CE DRM fails a MC, or if any CE crew of a fully armored AFV is attacked by a "2" Sniper dr (A14.3), or if a MG Final TK DR vs any (even a BU) AFV equals the Final TK#, or if Falling Rubble lands on a CE CT AFV (B24.121), that Inherent crew is Stunned and the AFV is marked with a Stun counter. A Stunned AFV and its Passengers immediately become BU if CE, and may not regain CE status (even if BU when the Stun occurred) until able to do so as per 5.33 in a subsequent Player Turn. A Stunned AFV may not fire (even in CC—though a Rider Hero could fire its AAMG), move (inclusive of CA changes) or expend MP for any reason during the remainder of that Player Turn, and immediately Stops (no Stop MP is spent) if moving/in-Motion. At the end of the Player Turn in which it was placed, flip the Stun counter to its "+1" side. This indicates that the AFV is no longer Stunned but must add one to any TH, MG/IFE/FT IFT, CC, TC/MC, Crew Survival, or OVR DR it makes. The "+1" counter remains on the AFV until the AFV is Abandoned, at which point it remains on the crew counter to signify its lessened vehicular capabilities in case it should re-crew another vehicle. The +1 counter has no other effect on the unit while outside a vehicle.



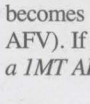
◊

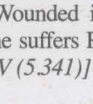

5.341 RECALL: Recall occurs whenever an AFV CE Inherent crew that qualifies for its normal CE DRM suffers a K/KIA or Casualty MC result, or when any 1MT AFV (1.322) suffers a Stun Result *[EXC: SMC crew; 5.343]*, or when the CE crew of a fully armored AFV is attacked by a "1" Sniper dr (A14.3). Recall is treated the same as a Stun except that at the end of that Player Turn the STUN counter is flipped over to its "Recall; +1" side. The "+1" effects are the same as in 5.34 above, but in addition that AFV and crew must attempt to exit the playing area along a Friendly Board Edge via the shortest route (in MP) using Motion status. ESB attempts are NA. If the AFV is carrying any Passenger(s)/Rider(s) it may Stop (or remain Stopped) long enough to unload them, but must unload them as soon as possible after the Recall occurs. A bogged/immobilized Recalled AFV must be Abandoned instead; its crew is no longer obliged to leave the board, but may not re-crew that AFV. Recall eliminates any Armor Leader present in that AFV *[EXC: Inexperienced Crew; 3.45]*.

5.342 An AFV crew that suffers a second Stun result (e.g.,while already under the effects of a "+1" counter) suffers Recall instead. See also Disabled MA Recall; 3.7.

5.343 SMC CREW: A SMC acting as a Temporary crew (A21.22) also becomes Wounded if he suffers a Stun result (even while in a 1MT AFV). If he suffers Recall *[EXC: due to Disabled MA (3.7); Stunned in a 1MT AFV (5.341)]* he is eliminated.

5.4 ABANDONMENT: Occasionally, a crew may wish to exit its vehicle voluntarily (rather than due to combat) in order to take counter form on the board. This is referred to as *Abandoning* the vehicle.



◊


5.41 A crew may abandon its vehicle only during its own MPh, and does so by expending all of its MF to be placed beneath the vehicle. The vehicle/crew may not have moved or fired during that Player Turn. See also 5.43. Place an Abandoned counter on the vehicle to indi-

© 2000 Multi-Man Publishing, LLC

cate that it may not move or fire and is subject to capture. The crew *[EXC: a lone SMC; A21.22]* may Remove certain weapons with it (see 6.631 for halftracks and 6.83 for Carriers, other vehicles may only be Scrounged [10.5-.52]) *or* attempt to unhook a Gun from it. Place the appropriate Disabled counter(s) (MA/AAMG, etc.) on the vehicle to indicate the absence of each weapon Removed, and place the appropriate SW (or mortar—dm if 76-82mm; A9.8) counter on top of the crew.

5.411 SELF-DESTRUCTION: Only an Inherent crew that *voluntarily* abandons a vehicle may turn it into a non-burning wreck or malfunction its weapon(s) as it leaves.

5.42 ENTRY: An Infantry unit may enter an Abandoned vehicle to become its Inherent crew *only* if it occupies that vehicle's Location at the start of its MPh (not APh) and expends all of its MF to do so *[EXC: CCPh; A21.2]*. It may also attempt to hook up a Gun as it does so. See also 5.43. A vehicle may not be entered during the same Player Turn in which its previous crew left *[EXC: CCPh; A21.2]*.

5.43 FFNAM: An Inherent crew Abandoning its vehicle as per 5.41 (as well as any other Personnel unit exiting/entering a vehicle) is considered *Infantry* and subject to FFNAM (until pinned) vs all attacks declared against it due to either its embarking/debarking MF expenditure or the vehicle's simultaneous MP/MF expenditure (6.4; 6.5). If also attempting to (un)hook a Gun while doing so, it succeeds in (un)hooking it only if it survives all such attacks unpinned and in Good Order. Likewise, Infantry attempting to enter a vehicle succeed only if they survive all such attacks unpinned and in Good Order.

EX: An Infantry Unit attempting to enter and Inherently crew a vehicle *(or attempting to load on to any form of transport as a Passenger/Rider)* does not succeed—and also fails to hook up a Gun if it were attempting to do so too—if, due to defensive fire prompted by that MF/MP expenditure, it is pinned, eliminated or loses its Good Order Status (or the vehicle is destroyed). An Inherent crew attempting to Abandon a vehicle *(or a Passenger/Rider attempting to unload from its transport) does* succeed—but does *not* unhook a Gun if it were also attempting to do so—if it is pinned, eliminated or loses its Good Order status (or the vehicle is destroyed) due to such fire.



5.5 IMMOBILIZATION TC: An immediate TC is required of the non-Shocked, non-Stunned Inherent crew of a vehicle *[EXC: one in a Water Obstacle; 16.3]* that becomes *immobilized by any non-CC attack*, or that is already bogged/immobilized and is hit by *Direct Fire ordnance* which fails to destroy, Stun, or Shock it but that would have destroyed or Shocked it with an Original TK or IFT DR of 5. Failure of the TC results in the crew being immediately placed beneath the vehicle (expending all remaining MF) and subject to the Hazardous Movement DRM during that phase (see also 9.3). Place an Abandoned counter on the vehicle (5.41). A crew thus *forced* to leave its vehicle may not Remove (6.631) any weapons from it. If the TC is passed, the crew may continue to Inherently man it or may abandon it voluntarily (5.41) during its MPh.



5.6 CREW SURVIVAL (CS): On the wreck side of each vehicle is a CS# representing an abstracted calculation of the crew size and its chance to escape its vehicle sufficiently intact to still represent a viable unit on the battlefield. If, after its elimination, the vehicle's owner makes a Final DR ≤ its CS#, a vehicle-crew counter is placed beneath the wreck (expending all remaining MF) and is subject to the effects of Hazardous Movement (see also 9.3) vs all subsequent attacks during that phase *[EXC: A CS DR is NA if that vehicle was eliminated in CC or turned into a Burning Wreck]*. Surviving PRC (see 6.9) are not subject to any Collateral Attack from the shot/FP that destroyed their vehicle, and can be subject to Residual FP attack during that phase only if the Residual FP was not the cause/result of their vehicle's destruction. There is a +1 DRM to the CS DR if the crew had been broken or under the effects of Shock/Stun at the time of the vehicle elimination. If the CS# is printed in lower case letters (cs); that vehicle has no crew survival possibilities; the cs# can only be used to resolve the survival chances of any Passengers/Riders (6.9).



5.7 BREW UPS: Certain AFV suffered from extreme fire hazard due to design defects in either the engine, ammo bins, or fuel tanks and consequently are more liable to become burning wrecks when eliminated. These vehicles are identified by having a red CS#. If the AFV has a red CS#, a special -1 DRM applies to the Final To Kill DR for Burning Wreck determination purposes only (see C7.7).

5.8 CREW FP: An inherent crew may fire all the armament of a vehicle *[EXC: see U.S. Multi-Applicable Note E and similar Vehicle Notes for secondary AAMG fired by Passengers]* but may not fire its inherent FP until it takes crew counter form outside that vehicle, and only if it has not yet fired a vehicular weapon or been a moving target (C.8) *prior* to taking counter form during that Player Turn (although it could still engage in CC/FPF). Any crew counter thus lacking use of its inherent FP should be marked with an appropriate Prep Fire or Final Fire counter.

6. TRANSPORTING PERSONNEL

6.1 PASSENGERS: Passengers ride inside their transporting vehicle and have their FP halved for Mounted Fire *[EXC: armored halftracks; 6.63]* (in addition to any penalties for Bounding (First) Fire/Motion). Passengers may engage in CC although at a disadvantage (A11.52 & A11.611). Any vehicle capable of transporting a Passenger has its carrying capacity printed on the counter in the form "#PP". For Passenger purposes, a squad equals ten PP, a HS/Crew five PP, and ≤ four SMC equal zero PP. Thus a vehicle with Transport Capacity can carry any combination of MMC/SW, provided the transport's PP capacity is not exceeded. See A5.5 for equivalents, and C10.13 for PP reduction due to a towed Gun's ammo. Passengers may remain in their vehicle even while broken or may rout beneath a Stopped vehicle per 5.311, unless the inherent crew (if any) is eliminated, breaks, or Abandons the vehicle, in which case any broken Passengers must rout beneath the vehicle. Otherwise, a broken Passenger may remain in its vehicle free from rout requirements even if enemy units are ADJACENT, in the same hex, or the vehicle is moving toward an enemy unit (even to OVR). LMG, PIAT, and Thrown DC are the only SW which can be fired by Passengers. *[EXC: Desperation attacks by SCW/RCL as per C13.8-.81]*.

6.2 RIDERS: Riders are Personnel being transported on the outside of an AFV (or Cavalry or motorcyclists). AFV Riders cannot be used until 1942—and even then only by the Russians. In 1943 and thereafter, all nationalities may use Riders. Riders are limited to tanks (not tankettes), TD, SPA, Carriers (limited capacity; 6.81), and Assault Guns. Rider capacity is limited to a maximum of 14 PP (as per 6.1); in addition a vehicle not otherwise granted Rider capability can carry one SMC as a Rider and the two PP he possesses. See A5.5 for equivalents. Rider PP cannot be used to satisfy the ammo PP reduction (C10.13) of any Gun that requires a T# (C10.1) to be transported; therefore, a dm 76-82mm mortar is transported by Riders at its normal five PP cost.

6.21 RESTRICTIONS: Riders are not allowed while the AFV is moving *through* (not around via Bypass) woods, orchard, buildings *[EXC: friendly Vehicular-Sized Entrance; B23.742]*, rubble, or Water Obstacles or through Bocage *[EXC: Breach; B9.541]*, unless it is moving across a road hexside. Should any AFV enter such terrain with Riders, the Riders must Bail Out in the last hex occupied prior to that prohibited terrain. A Rider on a turreted AFV must Bail Out if the AFV changes its TCA.

6.22 ATTACKS: Riders may not use SW, must use halved FP as Mounted Fire when firing their inherent FP on the IFT (quartered if the vehicle has moved or is in Motion, inclusive of OVR attacks), and must add one to their CC DR (A11.611).

6.23 TARGET STATUS: Riders are always Vulnerable to fire; i.e., they can never be BU like an AFV crew or halftrack Passenger, nor do they receive any CE benefit. Riders are subject to Collateral Attack. AFV Riders must Bail Out if pinned or broken.

© 2000 Multi-Man Publishing, LLC

6.24 BAILING OUT: A Rider (even if already broken) which is forced to leave its AFV (or broken Cavalry [A13.51] or motorcyclists [15.53]) by combat results (other than the destruction of the AFV) or terrain restrictions (6.21) is Bailing Out. Bailing Out never costs the transport any MP but for Defensive First Fire purposes the Rider is considered to spend all remaining (but at least one) MF subject to FFNAM. Any Rider which Bails Out must take a NMC, be placed beneath the AFV in the AFV's current Location, is unable to move or fire further during that phase, and if unbroken is marked with either a Prep Fire or Final Fire counter as appropriate. Any SW carried by a Bailing Out Rider is eliminated if the carrying unit breaks prior to or after Bail Out. Even if the carrying unit does not break as a result of Bailing Out, its SW must be removed from the AFV and checked for malfunction [dr 1-3 = ok; dr 4-6 = malfunction (or elimination if an X# SW)]. Bailing out into an enemy-occupied hex is allowed. See 6.5 for Bailing Out while in Bypass.

6.3 TRANSPORT: There is no reduction of a vehicle's MP allotment for transporting Personnel, although it does cost MP to load/disembark them. Units being transported are placed on top of the vehicle; units beneath a vehicle are on foot.

6.31 RECOVERY: PRC may not Recover SW not already in their vehicle, although they may transfer SW in their possession to other friendly Infantry/Cavalry in the same Location or other PRC on the same vehicle. Otherwise, SW must be Recovered by Infantry and loaded as the Infantry loads.

6.4 LOADING: A vehicle must be stopped to embark Passengers/Riders. It may move in the same MPh after they load, but it may not move in that MPh prior to their loading (including the expenditure of a MP to bring a Motion vehicle to a stop) *[EXC: Infantry hooking up a Gun, C10.11]*. The vehicle retains $^1/_4$ of its MP allotment for use in that MPh for each MF remaining to the Infantry that board it. If more than one Infantry unit boards the vehicle, only the unit expending the most MF is counted. It costs one MF to board a vehicle from the same Location. Loading (or unloading) may never occur during the APh. A SW may not be loaded onto or remain aboard an AFV without Passenger/Rider accompaniment *[EXC: any halftrack or Carrier may retain any SW placed in it if those SW apply to that vehicle's Passenger PP capacity]*. A vehicle which was not in Motion and loads/unloads Passengers or Riders as its first action in the MPh is not considered a moving target for Case J To Hit purposes, but can be Defensive First Fired upon due to its expenditure of MP. See 5.43 for attacks vs (un)loading Passengers/Riders. A leader cannot apply his MF bonus to units that load/unload during the same MPh (A4.12), but he can add his IPC to one such unit's IPC to increase its movement capability (A4.42).

EX: A HS carrying only two PP of SW can enter one Open Ground hex and board a vehicle in that hex which has not moved in the same MPh, leaving the vehicle with half of its MP, but a squad carrying five PP has only two MF and must expend them both to enter that Open Ground hex and load onto the vehicle unless it is accompanied by a SMC (A4.12, A4.42) carrying no PP of its own, thereby leaving the vehicle with one-fourth of its MP remaining for that MPh.

6.5 UNLOADING: A vehicle disembarks Passengers/Riders (without the latter Bailing Out) at a cost of one-fourth (FRU) of its MP allotment *[EXC: Infantry unhooking a Gun, C10.12]* per disembarking stack but only while stopped during its own MPh. Disembarking Personnel must expend one MF to be placed beneath the vehicle and are additionally considered to have already expended one MF for every one-fourth of the MP allotment (FRU) used by the vehicle during that turn prior to unloading. Since ESB (2.5) does not grant any additional *MF*, Passengers/Riders may not unload after a vehicle has spent > than $^3/_4$ of its printed MP allotment, although they may continue to be transported via any additional MP so obtained. Passengers/Riders may leave a vehicle that fired in the preceding PFPh and expended no MP in this MPh, although they could not leave the vehicle's Location during that MPh. Likewise, they may unload from an immobilized vehicle unless that vehicle has already expended more than three-fourths of its MP allotment during the current MPh. Otherwise, if an unloading unit has MF remaining (keeping in mind its overall limit of four MF and expenditures of MF during vehicle movement) it may continue to move from that Location with any remaining MF but must do so as part of the same MPh as the conveying vehicle (i.e., it does not have to move together with the stack of units it disembarked with, but no unit other than the conveying vehicle and any other disembarking PRC of that vehicle may move in the interim). Unloading pinned Passengers may not leave the Dismount Location during that MPh. FFNAM always applies vs loading or unloading units (A4.6); FFMO applies only if unloading Passengers from an unarmored conveyance in an Open Ground hex or CAFP. PRC may unload or Bail Out in an enemy-occupied hex with no special rules or consequences unless they do so from a vehicle in Bypass (A12.151); place a CC counter to show they are not held in Melee. Passengers/Riders of a vehicle in Bypass which unload (even if they do not have enough remaining MF to move into the obstacle) or which during their MPh Abandon/Survive/Bail-Out (5.4-.6, 6.24) are assumed to be in the terrain of the vehicle's CAFP (2.36) for purposes of any Defensive First Fire vs them. Immediately after all such First Fire is resolved, they are assumed to be in the woods or building terrain of the obstacle itself. Unlike AFV, Infantry may not move (on their own) and fire in the same phase. Therefore, Passengers/Riders which fire or add their FP to an OVR during a MPh may not unload in that phase (although they could Bail Out) and vice versa. However, Passengers/Riders on an OVR vehicle which do not add their FP to that OVR may disembark during that MPh. SW carried by a vehicle's Passenger PP capacity can be unloaded only by Passengers of the same vehicle.

6.6 ARMORED HALFTRACKS: An armored halftrack is unique in that it can carry Passengers who can either share the AFV's invulnerability to Small Arms Fire while BU, or can be CE.

6.61 BU: As long as an armored halftrack's Passengers are not CE, they may not be attacked separately *[EXC: A7.211]* from their vehicle (i.e., the halftrack itself must be attacked in order to harm the Passengers—even in CC), *unless* the firer has an elevation advantage > the range to the halftrack. In this event, the +2 CE DRM applies but is reduced by one for each full level elevation advantage > the range (to a minimum CE DRM of 0) as per 5.31, and even BU Passengers may return fire. Otherwise, BU Passengers may not fire, Spot/Observe for Indirect Fire, or attack in CC, or even provide a Personnel Escort DRM for vehicles being attacked in CC (A11.51). Broken/shocked Passengers are automatically considered BU.

6.62 CE: Armored halftrack Passengers/crew are always considered CE unless broken, shocked, pinned, or beneath a BU counter, and when CE are entitled to a normal +2 DRM as per 5.31. Such halftrack Passengers are not subject to Stun; they must become BU instead and broken if they also fail a MC. Armored halftrack Passengers must be CE in order to fire *[EXC: Reciprocity; A6.5]*, direct attacks, attack in CC, or Spot/Observe for Indirect Fire. Placement and removal of Passenger CE status is identical to that for inherent crews (5.33). Armored halftracks (and other nonturreted AFV) use the CE/BU counters with no TCA depiction unless they have a turret-mounted MA.

6.63 FIRE/MOVEMENT: If an armored halftrack moves, all fire from its Passengers is halved as either Bounding First Fire during that MPh or as AFPh Fire (i.e., Bounding Fire; 3.31). However, an armored halftrack Passenger never has its FP halved due strictly to Mounted Fire (as a Truck Passenger must).

6.631 SW REMOVAL: A crew abandoning (5.41) an armored halftrack of that crew's nationality may Remove from the AFV and take with them (in dm form if possible), that halftrack's MG/mortar armament. The MG takes the form of a MG counter with the same or less FP as available to the vehicle. The weapon can be returned and the Abandoned/Disabled counter removed from that AFV by a friendly crew's (with the appropriate MG/mortar counter) re-entry into the halftrack as per 5.42. Armament Removable by a *Passenger* (e.g., the German SPW 251/sMG) is Removed as part of the normal unloading cost (6.5).

© 2000 Multi-Man Publishing, LLC

6.64 FG: The only vehicles (as opposed to Passengers/Riders) that may be part of a multi-unit FG are Carriers/armored halftracks, each of which must be CE and using its vehicular-mounted non-ordnance weapon(s) *[EXC: FT, IFE]* to qualify for that FG; such a FG may be composed of such Carriers/halftracks and/or Infantry/Cavalry. A Passenger may be part of a FG composed only of other Passengers/vehicular-mounted non-ordnance weapons, and only if all elements of that FG are on the same vehicle *[EXC: CE halftrack Passengers may be part of a FG composed of other Carriers/halftracks (as above), and/or other Passengers of the same or another CE halftrack, and/or Infantry/Cavalry]*. AFV Riders may be part of a FG composed only of other Riders on the same vehicle and/or that vehicle's AAMG *[EXC: Carrier Riders may be part of any FG that consists of (or includes) that Carrier's non-ordnance weapon(s)]*. In all cases, the normal rules for FG (A7.5-.55) still apply. The vehicle crew is always assumed to fire its own weapons; a player may not specify his Passengers to be CE and firing the armament of an otherwise BU halftrack.

6.65 LEADERSHIP: The leadership modifier of any CE (or otherwise exposed to fire) leader *Passenger* may be used to direct the fire of other Passengers in that halftrack (including their use as a FG). However, it may not be used to direct the fire of other units in the hex if that halftrack has entered a new hex/hexside or been in Motion during that phase. The leader cannot direct fire to a target out of his LOS even if the target is in LOS of other units in the hex—a situation that can occur when the leader's halftrack is in Bypass (because his LOS must be traced from the vehicle's CAFP and can be blocked by the obstacle in its own hex). Similarly, a Passenger leader may direct an OVR or CC attack in which other Passengers take part, but may not be used to direct the halftrack alone. Likewise, a CE (or exposed) Armor Leader can direct the fire of his Passengers/other nearby units only if their FP is added to the non-ordnance FP of his halftrack to form a FG; he cannot direct them separately. A CE Passenger leader may provide a leader-MF bonus (A4.12) to Infantry if they all move as a stack throughout their MPh.

6.651 RALLY/MC/TC: A leader who is a Passenger can only affect the Rally/MC/TC of other Passengers in the same vehicle unless he is CE in a halftrack that has not entered a new hex/hexside or been in Motion during the current phase. Similarly, an Armor Leader can affect the MC/TC only of the inherent crew of his vehicle. Likewise, a non-Passenger leader may only affect Passengers of a non-moving (C.8) vehicle, but regardless of whether they are CE. The loss or breaking of an Armor Leader has no effect on anyone but his own crew (3.42). The loss/breaking of a Passenger leader cannot cause a LLMC/LLTC to any occupants of the same Location, except to other Passengers of the same vehicle (A10.2).

6.66 DM: Although a broken Passenger in an armored halftrack is automatically BU, it is put under DM by any ordnance hit vs that halftrack or by any attack vs that halftrack or its PRC which is capable of possibly inflicting at least an NMC result on a hypothetical CE target in that halftrack, even though such fire is normally not effective vs a BU target.

6.7 TRUCKS: All unarmored, fully-wheeled vehicles (such as a jeep) are generically covered by the truck rules. The only difference in transporting Personnel by truck (or unarmored halftrack) is that both the vehicle and its Passengers are subject to all forms of attack (i.e., its PRC are always Vulnerable). A non-ordnance or mortar attack is resolved on the ★ Vehicle line of the IFT (A7.308) against both the vehicle and Collaterally (D.8B) against its Passengers/crew with the same DR *[EXC: if that attack destroys the vehicle; D.8]*.

6.71 ORDNANCE: Ordnance *[EXC: mortar/Area Target Type; C1.55]* hits vs a truck are resolved on the Unarmored line of the proper To Kill Table. Any To Kill DR one > the Final TK# vs an unarmored vehicle is a miss (C7.311)—not Shock or Immobilization. Ordnance *[EXC: mortar/Area Target Type; C1.55]* can cause Immobilization vs an unarmored vehicle only with a TK DR equal to the Truck's Final TK#. If the vehicle is not destroyed, its Vulnerable PRC are subject to a Specific Collateral Attack (D.8A).

6.72 PASSENGER FIRE: Truck Passengers must use Mounted Fire if they make a fire attack, in addition to any other application of halved or Area Fire; thus a truck Passenger may add only one-fourth (tripled) of its printed FP to an OVR. In a few cases, a truck may have mounted weaponry, but that must be fired by its inherent crew. Truck Passengers may engage in CC, but are severely penalized (A11.52).

6.8 CARRIERS: A Carrier[8] is treated as a halftrack except as stated otherwise below.

6.81 PP: A Carrier is a fully-tracked OT AFV. A Carrier without a mortar, FT, or 6 FP AAMG listed as MA on its counter has a Passenger capacity of four PP (as per 6.1) for SMC/SW/ammo (C10.13). Any Carrier can also carry ≤ eight Rider PP (as per 6.2).

6.82 CREWS/HS: Carrier crews usually dismounted to make an attack as normal Infantry; therefore, their inherent crews are really 2-4-7 HS (or 2-4-8 if representing an elite unit) that, due to their unique training, need not pass a TC nor have a leader present (A1.31-.32) to recombine after Dismounting, or to Deploy for the purpose of mounting their Carriers (after having been combined into squads) when dismounted *[EXC: those Carriers armed with a FT or 76mm mortar or specified as towing ordnance, have inherent crews]*.

6.83 A Carrier HS/crew may also abandon/re-occupy a Carrier along with the Carrier's MG/ATR/mortar as per 6.631. The inherent crew/HS of a Carrier has the option to unload more quickly as per 6.5 but may not Remove any of the vehicle armament (6.631) or destroy the vehicle (5.411) if it does so.

6.84 CE: A Carrier is never considered BU. Its inherent HS/Crew/Passengers are always considered CE and Vulnerable to Small Arms Fire and Collateral Attacks in the same manner as a CE crew (5.31) *[EXC: they remain CE if stunned or shocked, and are subject to the Collateral Attack that may result from that attack]*. Even though always exposed to fire, the inherent Crew/HS of a Carrier must abide by 5.8.

6.9 SURVIVAL: The effects of Crew Survival (5.6) also apply to any Passenger/Rider of a vehicle destroyed by other than CC or burning. Each unit makes an individual DR to determine its own fate. A Rider who must check for Survival does not have to Bail Out. The Shock/Stun DRM applicable to inherent crews does not apply to Passengers but, if they happen to be broken, a +1 DRM applies to the Survival DR of those Passengers. SW not possessed by Surviving PRC are eliminated.

7. OVERRUNS (OVR)

7.1 An OVR is a form of Bounding First Fire. A vehicle that enters an enemy-occupied Location during the MPh can attack that Location's occupant(s) by expending one-fourth (FRU) of its *printed* MP allotment (wagons may not OVR because they expend MF; a pillbox may not be OVR because the vehicle cannot enter its Location) therein and announcing an OVR, provided it (and its PRC) is not already marked with a Bounding Fire counter *[EXC: 7.14]*. The OVR MP expenditure must be announced as a combined expenditure with that for entrance of the hex as the vehicle enters the OVR hex, unless that hex contains only unknown enemy units (A12.41). An OVRing vehicle may not declare a Gun Duel (C2.2401); instead, the OVR is resolved on the IFT immediately after the MP expenditure *[EXC: Bog DR, and defensive First Fire other than Reaction Fire (7.2), prompted by that MP expenditure (or by the MF expenditure of accompanying Infantry using Human Wave {A25.23} and Armored Assault {9.31}) are resolved first]*.

7.11 FP: The FP base for an OVR is one FP for an unarmored vehicle, two FP for an AFV, or four FP for an AFV whose MA is manned and functioning and is not a MG, FT, MTR, ATR or IFE-capable.[9] The FP base is modified by adding to it the tripled (TPBF) and halved (Bounding First Fire) FP of all manned and functioning MG/IFE armament on the vehicle *[EXC: RMG do not add to OVR FP]*. CE armored halftrack (only) Passengers can add one-half (and the Passengers/Riders of other vehicles can add one-fourth) of their printed FP to an OVR, but this too is subject to TPBF. All FT FP is added normally with no TPBF/halving adjustment. The total FP of an OVR is halved if the vehicle becomes Immobile or destroyed before it can resolve its OVR (in addition to any halving vs a concealed target; A12.13), but combat results vs Passengers/Riders after an OVR declaration do not affect the OVR FP. The halving of FP for Motion/ Non-Stopped Fire does not apply to OVR FP.

© 2000 Multi-Man Publishing, LLC

7.12 VEHICULAR TARGETS: An AFV may not be OVR, but any Vulnerable PRC on it can be. The presence of an AFV in a hex does not prevent an OVR against other non-armored targets in the hex. An OVR receives a +2 DRM vs a Motion vehicle (and its Vulnerable PRC).

7.13 RESTRICTIONS: An OVR may not be made using Reverse Movement. A DEFENDER in a woods/building obstacle cannot be OVR by a vehicle using VBM in that hex (2.33). An OVR may not be made by any vehicle currently marked with a Bounding First Fire counter (3.3) *[EXC: Multiple OVR; 7.14]*. A vehicle may not OVR the hex it begins its MPh in unless it leaves that hex and re-enters it.

7.14 MULTIPLE OVR: A vehicle may continue to OVR the same or a different target hex as long as it has sufficient MP to expend. However, each vehicle must attack separately; two or more vehicles may not add their OVR FP into a single attack, nor may a vehicle split its OVR FP (or that of its PRC) into two or more OVR attacks during a single entry of the target hex. A vehicle that conducts an OVR must exit that target hex before making another OVR.

7.15 TEM: The DEFENDER(S) in an OVR are entitled to the applicable TEM of that target Location unless the OVRing vehicle is using *only* a FT. If the ATTACKER adds any other FP (including the two base FP of an AFV) to the OVR FP of a FT, the DEFENDER receives full TEM (A.5). However, an OVR vs Infantry/Cavalry in any Open Ground hex may apply the FFMO -1 DRM, cumulative with applicable TEM (e.g., entrenchment, Emplacement, shellhole, vehicle/wreck, bridge, wall, bocage, etc.) and SMOKE. Wall/hedge TEM applies only if the OVRing vehicle entered the target hex across that hexside, and is not cumulative with in-hex TEM (B9.31). A vehicle OVRing a Crest-status unit does not have to cross a Crest hexside during that attack.[10]

7.16 LEADERSHIP: Leadership modification of an OVR is limited to an Armor Leader (or a Passenger leader in that vehicle as per 6.65 although the vehicle does not have to be a halftrack). Should both occupy the same vehicle, only one leadership modifier may be used.

7.17 MALFUNCTION: An OVR Original IFT DR of 12 results in weapon malfunction; use A9.71 if > one weapon contributed to the OVR FP. All weapons that added to the OVR FP (including AFV MA) are eligible for malfunction, though some with a B#/X# < 12 may be more prone to malfunction than others (i.e., a weapon with a B#/X# < 12 would malfunction on an Original OVR DR ≥ that #). In all cases the OVR is still resolved normally. If no weapon participating in the OVR can malfunction, or if the OVR is vs only inanimate objects (A9.74), the vehicle is immobilized instead if its Original IFT DR is a 12.

7.2 REACTION FIRE: Reaction Fire is conducted during the MPh by the DEFENDER, who uses it to attack a vehicle in that DEFENDER's (or, if using Street Fighting [7.211], in an allowed ADJACENT) Location. There are two types of Reaction Fire: *CC Reaction Fire* (7.21), which is resolved on the CCT; and *Non-CC Reaction Fire* (7.22), which is resolved on a TK Table or the IFT and which can be used only vs an OVR. Except as stated otherwise, a DEFENDER may use Reaction Fire as often as it is able to use the various forms of First/Final Fire. After making its Reaction Fire attack(s), that DEFENDER must await further movement expenditure by the vehicle (or by its Personnel Escort; A11.51) before conducting other than Reaction Fire vs that unit. Reaction Fire vs an OVRing vehicle is resolved immediately after the resolution of that OVR.

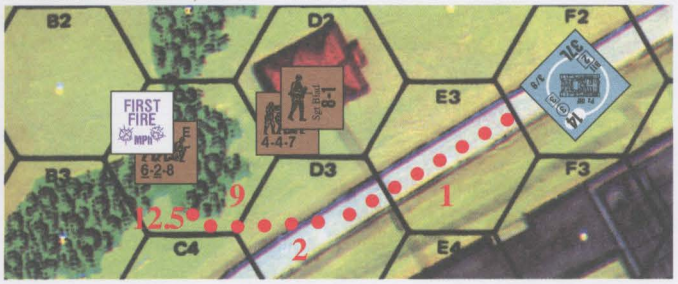
CC **7.21 CC REACTION FIRE:** Each Infantry/Cavalry DEFENDER unit that is unbroken, unpinned and neither Unarmed (A20.5) nor in Melee may attempt CC Reaction Fire, using the CC-vs-vehicle rules (A11.5, etc.; see also 7.211-.213) *[EXC: Ambush is NA unless using Street Fighting; 7.211]*. After completing its attack, that DEFENDER *and all* of its possessed SW (including those Inherent) and Guns are marked with a CC counter, if the vehicle has survived, to prohibit non-CC Reaction Fire attacks, and also with a First or Final Fire counter as appropriate for that attack. To attempt CC Reaction Fire vs an AFV, the DEFENDER must first pass a PAATC unless it is exempt from PAATC (A11.6) or took one when the AFV entered its Location earlier in the MPh (A12.41). If it fails the Reaction Fire PAATC, it becomes pinned and can neither make that CC Reaction Fire attack (7.213) nor opt to make a Non-CC Reaction Fire attack (7.22) instead. A DEFENDER need not pass more than one PAATC to attack the same vehicle more than once during the same (A.15) phase.

7.211 STREET FIGHTING: CC Reaction Fire may use Street Fighting (A11.8—including the Street Fighting Ambush -1 CC DRM) vs an ADJACENT vehicle if the units involved meet all the requirements for both. However, Street Fighting CC Reaction Fire may not be attempted by a unit that is, and/or possesses a SW—(including Inherent)/Gun that is, already marked with a First/Final/Intensive/No Fire counter. Mines/FFE/Residual-FP in the vehicle's/DEFENDER's Location can (as per their normal rules) attack the DEFENDER, who for that purpose is treated as using Assault Movement (into both Locations) and can claim any normally allowed SMOKE/TEM benefits present. A unit entering a wire Location must remain above that Wire counter as per B26.4 but a Street Fighting unit may not *voluntarily* remain in the road Location during CC Reaction Fire. The vehicle being attacked (including its PRC) cannot use Bounding First Fire before the end of that DEFENDER CC action.

7.212 FPF CC REACTION FIRE: Each DEFENDER unit (even if pinned) otherwise eligible to use CC Reaction Fire, and marked with a Final Fire counter when OVR by other than an unarmored vehicle with no PRC, *must* attempt (as per 7.21) such a CC attack vs that vehicle *[EXC: if otherwise allowed, it may use FPF Non-CC Reaction Fire (7.221) instead]*. Vs an AFV, that DEFENDER may first be subject to a PAATC (see 7.21). Being currently pinned (for any reason) does not cancel its required FPF CC Reaction Fire attack. Each FPF CC Reaction Fire attack DR also acts as a NMC DR vs the attacking DEFENDER(S) as per A8.31. For DEFENDER Infantry manning a Gun, see also 7.23.

7.213 The only differences between resolving CC Reaction Fire and normal CC are that: CC Reaction Fire occurs during the MPh when no vehicle CC attacks (of *any* kind, including "sN"; A11.622) are allowed; no pinned unit—regardless of how it became pinned—may make a CC Reaction Fire attack *[EXC: FPF CC; 7.212]*; CC Reaction Fire conducted by a unit marked with a First/Final Fire counter (including its SW) has its CCV reduced by one; and ATTACKER Personnel Escort *[EXC: PRC]* in the vehicle's Location are not affected by CC Reaction Fire, nor can they (even if PRC) engage the attacking DEFENDER in CC or with Bounding First Fire before the end of that DEFENDER CC action (and even then they can conduct no CC prior to the CCPh except possibly Infantry OVR; A4.15).

7.22 NON-CC REACTION FIRE: Each unbroken DEFENDER unit in an OVR Location and not beneath a CC/Melee counter may conduct Non-CC Reaction Fire within (and up to the limits of) its present capabilities, using TPBF/ordnance/FT/Thrown-DC in the normal manner vs that OVRing vehicle *[EXC: if that DEFENDER is marked with a Final Fire counter, see 7.221; if it possesses a Gun that is marked with a fire counter, see 7.23; if it is pinned, see A7.81]*. A Gun must change its CA to coincide with that of the OVRing vehicle's VCA before it can fire, but TH Cases A and E are NA. A Reaction Fire ordnance *hit* or FT/DC attack vs an OVRing AFV automatically strikes (or is Thrown through; C7.346) that AFV's rear Target Facing. MOL cannot be used with/as TPBF if that DEFENDER, or any Gun it possesses, is marked with a First/Final/Intensive/No Fire counter. For TPBF vs an OT AFV, see also A7.211.



EX: The BU tank expends one MP to enter 1E3. The 4-4-7 and 8-1 in D2 then declare a Street Fighting CC Reaction Fire attack (7.211) vs it as their Defensive First Fire. The 4-4-7 passes its PAATC, and both units enter E3 where (after surviving all attacks by mines in D2/E3 and Residual-FP/FFE in E3, if any) they make their

© 2000 Multi-Man Publishing, LLC

Reaction Fire CC attack. Their combined CCV is 6, but there is a +2 DRM because the vehicle is Non-Stopped (A11.51) and a -2 DRM due to leadership and Ambush, so the AFV will be immobilized on an Original DR of 6, eliminated on an Original DR of 4 or 5, and burned on an Original DR of ≤ 3. However, the DR is ≥ 7 so the attack fails. The 4-4-7 and 8-1, now marked with both a First Fire and a CC counter, return to D2 (again assuming they survive all mine/FFE/Residual-FP attacks as they attempt to do so), and the tank expends another MP to enter D3 where it is safe from Street Fighting since all ADJACENT Russian units are marked with First Fire counters. Next it enters C3 at a cost of 11 MP (7 MP for entering woods, plus an additional 4 MP [1/4 of its MP allotment; FRU]) to make an OVR, for a total MP expenditure of 13 thus far in its MPh [Note: the 12.5 MP in the illustration is prior to FRU]. It passes a Bog DR and attacks the 6-2-8 with 20 FP on the IFT (11 [FP] × 3 [TPBF] = 33 ÷ 2 [Bounding First Fire] = 16½ + 4 [MA base] = 20 ½) and a +1 DRM (woods TEM). This attack has no effect vs the 6-2-8, which then passes a PAATC in order to use CC Reaction Fire. Because the 6-2-8 is already marked with a First Fire counter it must reduce its CCV by one due to making a CC Reaction Fire attack as Subsequent First Fire. There is a +2 DRM to its attack (vs a Non-Stopped vehicle), so the tank can be affected only by an Original DR of 2 which will immobilize it or allow the possibility of an Unlikely Kill (A11.501). The tank, with one MP remaining, decides to enter B2 and remain in Motion rather than chance CC with the 6-2-8 in the upcoming CCPh. The 6-2-8 is marked with both Final Fire and CC counters.

Now assume the 6-2-8 was under a Final Fire counter when it was OVR. It must now use FPF CC Reaction Fire (7.212) even if it fails its PAATC. If it passes the PAATC, its attack will be identical to the Subsequent First Fire CC Reaction Fire attack just described, except that it will be pinned if its Original attack DR is an 8 or broken if that DR is ≥ 9. If it fails the PAATC, it must still attack with the same risk to itself but with its CCV reduced to 3 (5 [CCV] -1 [Pinned] -1 [marked with Final Fire counter] = 3), which, the AFV is still moving (+2 DRM), means its only chance to harm the AFV is with an Original 2 DR, yielding an Unlikely Kill.

If the 4-4-7 possessed a SW such as an ATR and fired it when the tank entered E3, that squad could not then use Street Fighting CC Reaction Fire (since the ATR would be marked by a First Fire counter; 7.211). On the other hand, if the 4-4-7 conducted Street Fighting CC Reaction Fire in E3 first, its ATR would still be marked with a First Fire counter.

7.221 FPF NON-CC REACTION FIRE: Each DEFENDER Personnel unit *[EXC: Infantry manning a Gun marked as given in 7.23]* eligible to use Non-CC Reaction Fire, and marked by a Final Fire counter when OVR by other than an unarmored vehicle with no PRC, *must* use (as per 7.22) TPBF, an ordnance SW, a FT or a Thrown DC vs that vehicle *[EXC: if pinned, it cannot use FT or DC (A7.81); if otherwise allowed, it may use CC Reaction Fire (7.212) instead]*. Each FPF Reaction Fire TH, TPBF/FT/IFT, or DC Position, DR also acts as a NMC DR vs the attacking DEFENDER(S) as per A8.3] (as per C5.64 for ordnance).

7.23 GUN CREWS: DEFENDER Infantry eligible to use Non-CC Reaction Fire, and manning a Gun that is marked with a First/Final/Intensive/No Fire counter when OVR by other than an unarmored vehicle with no PRC, *must* conduct FPF Reaction Fire as follows: If the Gun is marked with a First Fire counter, they Intensive (or Sustain; C2.29) Fire it as per 7.221; however, if for any reason they cannot do so (e.g., if the Gun cannot use such fire, or if its CA must, but cannot, be changed as per 7.22), or if the Gun is marked with a Final/Intensive/No Fire counter, they make a CC or TPBF attack (owner's choice as otherwise allowed) modified as if they were already marked with a Final Fire counter (7.212 or 7.221).

8. IMMOBILIZATION & BOG

8.1 IMMOBILIZATION: An immobilized vehicle cannot expend a Start MP, leave its current Location nor change its VCA, but may change its TCA if otherwise able to. Immobilization cannot be repaired during play. Immobilization usually occurs due to a variety of combat results [IFT vs unarmored (A7.308); CC (A11.5); DC (C7.7); minefields (B28.42); A-T mines (B28.52); Clearing mines (B28.71); ordnance fire (C7.3, C7.7); OVR (7.17)], but can also occur due to Bog Removal attempts (8.3), mechanical failure (2.51), or tracked vehicles attempting Excessive Speed (2.5). After all Passengers/Riders/SW/Guns have been unloaded/unhooked, an unarmed and unarmored immobilized vehicle is flipped over to its Wreck side (or removed if it has no wreck side).

8.11 MULTIPLE IMMOBILIZATION: The Inherent crew of an immobilized vehicle that receives another Immobilization result may be subject to an Immobilization TC (5.5).

BOG DR ≥ 12

8.2 BOG: Bog occurs only when a vehicle fails a Bog Check DR. A vehicle must make a Bog Check as dictated by the Terrain Chart for entering, or exiting or making any VCA change (one Bog DR per hexspine) in, certain terrain types termed Bog hexes. The Bog effect always takes place in the Bog hex, whether the vehicle is attempting to enter or (in the case of vehicles leaving a stream or trucks leaving a gully; B20.46) leave it. A bogged vehicle may not exit its current Location or change its VCA until freed, and therefore is Immobile, but may change its TCA if otherwise able to.

EX: A PzKpfw IIA exiting a stream across a non-stream hexside into a woods hex would possibly be subject to two Bog Checks. If it passes the first in the stream hex (0 DRM), it must take a second in the woods hex adding the +1 DRM for gaining elevation while entering woods and (unless making a Minimum Move) the +3 DRM for entry of woods at half MP allotment.

8.21 BOG CHECK: If a Final Bog Check DR is ≥ 12, the vehicle bogs, is marked with a Bog counter, and must end its MPh immediately. The Original Bog Check DR is subject to the following cumulative DRM:

DRM	Cause
+1	Vehicle has Normal Ground Pressure
+2	Vehicle has High Ground Pressure
+1	Vehicle is towing ordnance[1] or trailer
+1	Ground is specified as soft[2], mud[2], or snow-covered[3]
+1	Ground is covered with Deep-Snow[3]/vehicle is crossing a Drift (E3.752)
+1	Vehicle is not fully-tracked
+1	Vehicle has Truck-type MP expenditure
+1	Making an Abrupt Elevation Change
+1	Exiting a Deep Stream & vehicle is neither amphibious nor water-proofed
+1	Gaining elevation and entering woods
+2	Moving into Wire
+3	*Entry of woods, graveyard, wooden-building or rubble, at half MP allotment
+4	*Entry of stone building at half MP allotment

* +1 instead if moving from Factory hex to non-rubble hex within the same Factory (B23.742)

[1] NA if ordnance is 76-107mm MTR

[2] NA if on paved road or in building

[3] NA if in building or on plowed road

8.22 BOG TC: The Inherent crew of a Bogged vehicle may be subject to an Immobilization TC when hit by sufficiently threatening ordnance (5.5).

8.23 MUD & DEEP SNOW: When scenario Weather (E3) is "Mud" or "Deep Snow", a vehicle *[EXC: motorcycle; 15.47]* must chance a Bog DR whenever it enters a hex or hexside without benefit of a paved/plowed road/runway hexside. The opponent makes one Secret (D.5) Bog Check DR for the vehicle's entire MPh (unless it enters—or, in the case of a stream, exits—a regular Bog hex in which case a Bog DR is also made for that hex; see also E3.752), plus a Secret dr. If the Secret Bog Check DR is sufficient to cause a Bog, note is taken of the Secret dr. The Bog takes place in a hex along the vehicle's path equal to the dr; e.g., if the dr was a 2, the opponent must declare the vehicle bogged in the second hex (/Bypassed hexside) moved into during that MPh which can cause such a Bog result. MP expenditure is not a factor. If the vehicle does not move into that many hexes (/Bypassed hexsides) subject to Bog, no Bog result occurs.

8.3 BOG REMOVAL: An otherwise-Mobile vehicle may attempt to eliminate its Bog status at the start of its MPh, provided it has not fired during its PFPh. Bog Removal is attempted by spending as its Start MP an amount of MP equal to an Original colored dr times a white dr (instead of the usual one MP for Starting). This MP cost is doubled if the vehicle is non-tracked. If the Final colored dr is 1-4, the vehicle is freed (even if its total MP allotment is < the modified start MP expenditure), but it is still in the Bog hex. The vehicle may then use any remaining MP

© 2000 Multi-Man Publishing, LLC

to change-CA/move-normally. A -1 drm also applies to the colored dr if, in the same Location as the bogged/mired vehicle, there is a Mobile AFV (whose weight is ≥ 90% of the bogged/mired vehicle's weight) that has not Prep Fired, is CE, Stopped, and expends all its MP in Delay to assist in the other vehicle's unbogging attempt. However, if this other AFV assists thusly, both vehicles are then TI for the rest of that Player Turn, regardless of the Bog Removal DR's outcome. Both vehicles remain Stopped, and may not change CA, throughout their MPh—but may be Defensive First Fired on due to their MP expenditure. One armor leader in either AFV also modifies the colored dr.

Final colored dr	Result
≤ 4	Freed at MP cost equal to white dr × colored dr (x 2 if not tracked)
5	Vehicle becomes Mired
≥ 6	Vehicle becomes Immobilized

MIRED +1 Bog dr

8.31 MIRED: If a vehicle becomes Mired, its Bog counter is flipped over to the Mired side. Thereafter it receives a +1 drm to the colored dr of its future Bog Removal DR as long as it is Mired. The Mired drm is not cumulative for being Mired more than once.

8.32 TOW: A towed Gun may be unhooked from a bogged/immobilized/Abandoned vehicle with no special penalty for the vehicle's status.

8.4 TARGET STATUS: A vehicle bogged/immobilized during a MPh due to having entered-a-new-hex/used-VBM/been-in-Motion in that MPh is considered a moving target (C.8) for the rest of that MPh. However, a vehicle that begins its MPh bogged is considered a moving target only after it leaves its Bog hex/hexside, though the MP it expends in attempting Bog Removal will allow an enemy to Defensive First Fire upon it in its Bog hex with no Case J TH DRM.

8.5 Assuming an Inherent crew that is not broken/stunned/shocked, a bogged/immobilized vehicle may still expend MP for "non-movement" purposes (e.g., to change TCA, [un]load PRC, fire Smoke Dispensers, etc.), and its firing capabilities are unchanged except as related to its inability to change VCA. However, after the phase (A.15) in which it becomes thusly Immobile, its bow mounted weapon(s) may be used against a target in that vehicle's hex only during Defensive First Fire (thus its BMG is unusable in CC), only if the target is entering that hex from within the vehicle's VCA, and only a number of times ≤ the MF/MP expended by the target to *enter* the hex. See also C2.6.

9. VEHICLES AS COVER

9.1 BU/CE: Only AFV Inherent crews and OT AFV Passengers can affect their Vulnerability to most attacks by being BU or CE. Riders are always Vulnerable as per 6.23. See also D.6.

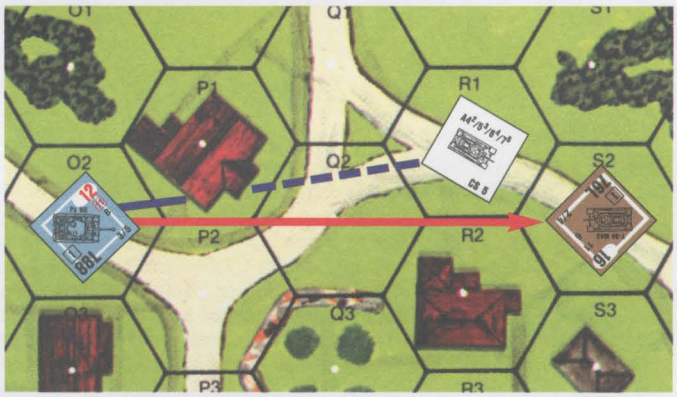
9.2 SURVIVAL: An attack that destroys (but not burns) a vehicle does not attack its PRC separately. They instead roll for Survival (5.6/6.9). See also 5.7 and C7.6.

9.3 AFV/WRECK TEM: All Infantry in the same Location with a wreck/friendly-AFV/abandoned-enemy-AFV are entitled to a +1 TEM unless one or more of the following applies: they are being fired on from within that same Location; the wreck is burning (10.3); that AFV/wreck is entrenched (B27.52), Dug-In (9.54), or at a different level than the Infantry in its Depression hex, or that AFV would be subject to TH Case J (a Stopped AFV or wreck which has moved/was in Motion during the current Player Turn's MPh provides a +1 TEM during all Phases following the AFPh) if at that moment it were to be fired on by ordnance (C.8) *[EXC: Armored Assault (9.31); units Abandoning/Surviving/unloading/Bailing-Out from an AFV (5.5, 5.6, 6.5, & 6.24)]*. This TEM is applicable only if the unit can claim *no* other positive TEM, but is cumulative with any SMOKE/Hindrance DRM applicable to the firer. An unarmored vehicle exerts no TEM until it becomes a wreck.[11] Infantry/Cavalry in the same hex with a vehicle are not affected by the elimination of that vehicle.

9.31 ARMORED ASSAULT: Infantry may take advantage of the +1 TEM afforded by a friendly AFV in the same hex to move in a combined stack with that AFV, provided they begin their MPh beneath that AFV. If Infantry move in a stack with the AFV, that AFV cannot move farther than if it were accompanied by that same Infantry throughout the move—even if that Infantry fails to end its MPh in the same hex with the AFV. Infantry moving with an AFV across otherwise Open Ground is not subject to FFMO but is subject to FFNAM (unless Assault Movement is declared) and +1 for the AFV for a combined DRM of 0. A Stopped AFV continues to provide the +1 TEM during the DFPh to the units that moved with it.

EX: Using the 9.4 illustration, assume an Infantry squad is beneath the Tiger in O2 and has already expended two MF in Armored Assault. The squad could now use its last two MF to enter the building in P1 and the Tiger could continue movement alone into P2 and Q2. However, if fired on in P1 either normally or by Snap Shot, the squad would receive no TEM/LOS Hindrance aid from the Tiger. Had the squad been Double Timing or accompanied by a leader so that it had six MF at the Start of its MPh, the Tiger could continue on into R1 and R0 which it may have reached had the Infantry continued with it. Similarly, had the squad declared Double Time upon entering the building to gain one extra MF, the Tiger could get to R1 but no farther.

9.4 AFV/WRECK LOS HINDRANCE: There is a +1 Hindrance DRM to a same-level LOS for firing *through (not just into or out of)* a hex containing one or more wrecks/AFV, but it does not apply if that wreck/AFV is in Bypass and the LOS does not touch the hexside being bypassed, or if the AFV/wreck forming the Hindrance is not in the LOS of *both* the firer *and* the target, or if that wreck is burning (B25.2), or if that AFV/wreck would be subject to To Hit Case J (a Stopped AFV or wreck which had moved/was in Motion during the current player Turn's MPh nonetheless presents a +1 Hindrance during all phases following the AFPh) if at that moment it were to be fired on by ordnance, or if entrenched/Dug-In. If the Hindrance DRM of a concealed AFV would actually change the result of an attack, the owner must show that it is not a Dummy stack.



EX: A German tank is in 22O2, a wreck is in R1, and a Russian tank in S2. Normally a LOS drawn from O2 to S2 (shown in red) would have to add a +1 Hindrance DRM for the wreck in R1—but not in this case, because the firer in O2 cannot trace a LOS (shown in blue) to the center of R1 which contains the wreck. Should the Russian tank fire on the German tank the wreck LOS Hindrance likewise does not apply because the target in O2 cannot trace a LOS to the wreck.

TCA BU

9.5 ARMORED CUPOLA: An Armored Cupola represents a Dug-In AFV (9.54) or ground-mounted turret or specially constructed bunker with a rotating turret, and is represented in a scenario OB by a BU TCA counter. A corresponding SSR is necessary to define its armament, turret type, and AF. The TCA counter is used to define its CA and any To Hit/IFT DRM penalties for fire outside it (3.12 & 3.52). CC vs an Armored Cupola requires the use of PAATC and CCV in the usual manner. An Armored Cupola is considered the equivalent of an Immobile tank in every way except as modified below or by SSR.

© 2000 Multi-Man Publishing, LLC

9.51 CREW: An Armored Cupola is manned by an inherent Infantry (not vehicular) crew counter; it can hold no other unit—even a SMC—and therefore is not subject to any leadership DRM. CE status and CS# do not exist in an Armored Cupola. BU To Hit DRM always apply. However, Immobilization TC are never required. All of an Armored Cupola's MG armament is usable in CC.

9.52 PLACEMENT: An Armored Cupola can be placed only in brush, grain, woods, orchard, shellhole, debris (O1.), or Open Ground hexes as if it were a pillbox (B30.1). Although it cannot leave or be pushed out of its hex, it is free to change its TCA 360 degrees. An Armored Cupola is never eligible for concealment and leaves no wreck. An Armored Cupola set up directly behind a wall/hedge is always assumed to have Wall Advantage over those hexsides unless it is Abandoned/in-Melee or its inherent crew is stunned/shocked.

9.53 SIZE: The Target Size (1.7) of an Armored Cupola is always small (+1). It is not considered HD and Hit Location (C3.9) is NA.

9.54 DUG-IN AFV: A Dug-In AFV is treated as an Armored Cupola except as stated otherwise. A Dug-In AFV is HD to all Direct Fire attacks *[EXC: vs Aerial AF]*, has a +1 Target Size *[EXC: if the AFV actually has a +2 Target Size]*, and does not create a Hindrance. A Dug-In AFV has a vehicular (not Infantry) crew (and therefore, unlike other Armored Cupolas, cannot place a Fire Lane), can be CE, does have a CS#, and will leave a scrungeable (or burning) wreck which does not leave a *wreck* Hindrance (9.4). Place a Vehicle Crest counter (from *WEST OF ALAMEIN*) on the AFV to show its Dug-In status.

10. WRECKS



10.1 CREATION: A wreck is created whenever a vehicle with a wreck depicted on its reverse side has been eliminated. This is done by flipping the vehicle counter over to its white side. Some vehicles have no white side because they have different functioning values dependent on their current status and are depicted with those values as functioning vehicles on both sides of the counter; when such a vehicle is eliminated, replace it with the wreck side of a vehicle with comparable weight, scroungable armament, and armored or unarmored status. Only those vehicles with no vehicle depiction at all on the reverse side leave no wreck behind when eliminated. If such a vehicle is eliminated by a "Burn" result, no Blaze actually occurs but all PRC are still eliminated with no chance for survival. If the wreck is a burning wreck (B25.14, C7.6), a Blaze counter is placed on top of it. A non-burning wreck may be attacked by either side, treating the wreck as if it were still the original vehicle *[EXC: for CC purposes it does not necessitate PAATC, cannot be Ambushed, and is considered CE and Abandoned (and therefore Immobile and with no useable MG)]*. Wreck counters retain the VCA of the original vehicle but the TCA is the same as the VCA.

10.2 MOVEMENT EFFECTS: A wreck does not increase movement costs for Infantry/Cavalry unless it is a burning wreck (due to the attendant smoke; B25.141). However, a wreck in a hex does increase the MP/MF costs for a non-motorcycle vehicle to enter that hex (2.14), even if not burning (although a burning wreck costs more MP due to the attendant smoke). Wrecks do not contribute to Overstacking penalties. Wrecks (and vehicles) do not completely block entrance to a hex *[EXC: Bypass (2.31), One Lane Bridges (B6.431), and Sunken Lanes (B4.43)]* but do make entry more difficult through increased MP costs.

10.3 COVER: A non-burning wreck affords a +1 TEM cover benefit as per 9.3 and LOS Hindrance as per 9.4. A burning wreck does not provide the +1 TEM of 9.3 to Infantry in the same hex, nor does the burning wreck create a LOS Hindrance due to the wreck *counter [EXC: Fire Lane (A9.22); Heavy Winds (B25.63)]*; however, the attendant smoke of a burning wreck does create a LOS Hindrance (B25.2).

10.4 REMOVAL: Wrecks may be removed from play in either of two ways:

10.41 FIRE: Any wreck in a terrain Blaze is removed.

10.42 PUSHING: A wreck is removed at the end of the MPh by any tracked AFV (whose weight is ≥ 90% of the wreck's weight) which remains mobile while expending half of its MP allotment (in addition to any MP cost for entry of the wreck's hex) in that wreck's Location solely for that purpose.



10.5 SCROUNGING: Any non-berserk, unbroken Infantry MMC not in Melee may attempt to salvage a *functioning* SW from a non-burning wreck or abandoned vehicle, provided that vehicle/wreck has not already been scrounged or marked with a Disabled counter (6.631). Any successfully salvaged weapon is treated as a normal SW (see also 10.51-.52) of that wreck/vehicle's nationality. A unit in the same hex with a vehicle/wreck during its own RPh may attempt to scrounge, but regardless of the outcome, it and any SW it salvages are TI for the balance of that Player Turn. An AFV carried inherent small arms capable of rearming any unarmed unit of up to HS size; thus scrounged small arms can rearm a previously unarmed SMC, crew, or HS completely (as per A20.552). An unarmed squad would be immediately replaced by an armed HS and a still unarmed HS, without the usual Deployment requirements. Such arms cannot be given voluntarily by a manned AFV. To scrounge anything of value, a 1-3 dr (Δ) is necessary. The dr also doubles as the number of SW that may be scrounged (selected randomly) if more than one exists. Regardless of the outcome, place a "Scrounged" counter on the wreck/abandoned vehicle to signify that it cannot be scrounged again and all its scrungeable weapons are Disabled.

10.51 Only BMG/AAMG/SW carried by the vehicle as per Vehicle Listing Notes may be recovered by scrounging. Fixed-Mount (1.81) BMG, ordnance, CMG, smoke dispensers, FT, and MA other than mortars cannot be scrounged *[EXC: CMG that may be repositioned as AAMG may be Scrounged]*.

10.52 A scrounged MG is represented by a LMG counter of that wreck/vehicle's nationality, regardless of its FP while mounted in the vehicle (U.S. LMG are represented by British LMG counters without captured weapon use penalties). A MG/mortar is always scrounged in its dm form if possible.

11. GYROSTABILIZERS & SCHUERZEN

11.1 GYROSTABILIZER (G): Any AFV possibly equipped with a Gyrostabilizer (hereafter referred to as a Stabilized Gun) is indicated by the letter "G" on the wreck side of its counter. Gyrostabilizers are considered in use only if specified by SSR or DYO purchases (H1.42).[12]



***OPTIONAL AVAILABILITY:** Players who do not mind recording which vehicles have this feature may make a dr for each applicable AFV prior to the start of play on the Gyrostabilizer Availability Table (H1.42). Such availability once determined can be easily recorded by placing a Gyrostabilizer counter on the pertinent block of that AFV's master Control Card (both counters and cards are provided in the *Deluxe ASL* Module *Hedgerow Hell*).

11.11 A stopped Stabilized Gun using Bounding First Fire uses the Case C To Hit DRM (C5.3) but as a "Case B + 1" DRM for a Stabilized Gun. A Stabilized Gun can also use Bounding First Fire while not stopped; to do so it must add a +1 DRM to the applicable Case C, C^1, or C^2 DRM of Case C^4.

11.12 A Stabilized Gun firing while not stopped can claim Target Acquisition benefits (even during Bounding First Fire) if it does not move out of the LOS of that target (or vice versa) and fulfills the other requirements of Target Acquisition.

11.13 STABILIZED CMG: The CMG of a Stabilized Gun is not halved for Bounding (First)/Motion Fire if it is firing at a target currently acquired by that Gun.

11.2 SCHUERZEN (Sz): Certain German AFV built or rebuilt after March 1943 had thin soft-steel plates called Schuerzen (aprons) attached at various points, the purpose of which was to prematurely detonate

© 2000 Multi-Man Publishing, LLC

HEAT projectiles. A turreted AFV with Schuerzen has them on its hull sides and turret sides and rear. A non-turreted AFV with Schuerzen has them only on the sides of both its hull and superstructure.

11.21 AVAILABILITY: Only the following AFV can have Schuerzen, and not before July 1943: PzKpfw IIIJ, L, N; PzKpfw IVF2, H, J; all StuG IIIG and StuH 42; Brummbaer; all JgdPz IV. This possibility is symbolized on the reverse of their counters by the notation "Sz". These AFV are considered to have Schuerzen only if so designated by SSR or DYO purchase (H1.42).

Sz ***11.211 OPTIONAL AVAILABILITY:** Players who do not mind recording which vehicles have this feature may make a DR on the Schuerzen Availability Table (H1.42) for each applicable AFV prior to the start of play. Such availability once determined can be easily recorded by placing a Schuerzen counter on the pertinent block of that AFV's appropriate AFV card (J2.6). Schuerzen counters are provided in *Deluxe ASL* Module *Hedgerow Hell*.

11.22 LOSS: All Schuerzen are automatically lost if the AFV enters rubble or a building/woods obstacle unless on a previously placed TB or while crossing a road hexside.

11.23 EFFECT: Any HEAT round (including all SCW) hitting a Target Facing protected by Schuerzen causes a doubling of the lower dr on the resulting To Kill DR.

12. HORSE-DRAWN TRANSPORT

Despite the attention given to tank and mechanized warfare in WWII, all nations but Britain and the U.S. relied primarily on horse power for the bulk of their non-rail overland transport.



12.1 VEHICLE CLASS: A wagon counter is always identified by its obvious overhead depiction. Horse-Drawn transport (hereafter referred to as a Wagon) is considered vehicular in nature except that it expends MF rather than MP because the expenditure costs are often similar to those for Personnel. For example, entry of a road hexside costs one MF—not ½ MP, there is no MF cost for starting or stopping, and entry of higher terrain costs double *[EXC: Abrupt Elevation Change; B10.51]* MF—not an additional four MP. However, a wagon must expend one MF for each hexspine change in its VCA. Exact MF expenditures for entry of various terrain types and prohibited terrain types are listed on the MF Entrance Cost column of the Terrain Chart (although Vehicular Bypass type movement is allowed through applicable buildings or woods hexes). References to MP expenditures/requirements apply equally to the MF of horse-drawn transport unless specified otherwise. A wagon leaves no wreck (or burning wreck) when destroyed. See also D.2.

12.2 TRANSPORT: A wagon provides transport services in the same manner as a truck (6.7). A player can declare that two wagon counters will tow one Gun whose M# is ≥ 2. The combined wagons are treated as one wagon in all respects *[EXC: its Towing Number is 2 (T2) and it is a Large Target (1.72)]*.

12.3 TARGET STATUS: A wagon is an unarmored vehicle target and is treated as such when attacked (6.7-.71). A single wagon has an average Target Size (1.73); only combined wagons (12.2) have large Target Size.

12.4 GALLOP: Provided it is not already CX, a wagon may increase its MF allotment by half for its present MPh by declaring a Gallop at the start of that MPh and placing a CX counter on the unit. The CX counter affects both the wagon and any Passengers on it. Any wagon increasing its MF in this manner must undergo an immediate Wreck Check dr in every hex in which it changes its VCA or pays more than one MF for entry *[EXC: entering a higher elevation via a road hexside]*. If it rolls a 6, the wagon is eliminated. Any Passengers/SW are broken/malfunctioned (or eliminated in the case of X# SW).



12.5 SLEDGE: The reverse side of each wagon counter portrays a sledge for use in Snow scenarios. A sledge is the equivalent of a wagon in all respects except for its higher T# and cs#, and its smaller movement allotment which, unlike most vehicles, is never reduced by the effects of snow. A sledge may even represent a Finnish pulkka pulled by reindeer, as actually depicted on the counter.

13. VEHICULAR SMOKE DISPENSERS

13.1 TYPES: Smoke Dischargers (sD), Smoke Mortars (sM), Smoke Pots (sP), and the Nahverteidigungswaffe (sN) are all vehicular smoke dispensers. An AFV is equipped with such only if the reverse side of its counter contains the appropriate abbreviation followed by a Usage Number; e.g., "sD7". The abbreviation indicates the type of smoke dispenser carried, and the Usage Number represents the abstracted probability (in terms of equipage, damage, loaded status, and crew awareness) that it can fire when its owner wishes. These Usage Numbers replace normal Breakdown and Ammunition Depletion rules. A smoke dispenser is not considered a weapon *[EXC: sN in CC]*.

13.2 USAGE: An AFV may attempt to dispense smoke once per Player Turn during the MPh—but only if that AFV is not Abandoned, its crew is not stunned, shocked, or broken, and the AFV/PRC has not yet fired (including Bounding or Defensive First Fire) any weapon during that Player Turn. *Firing* (see 13.3) a smoke dispenser costs one MP during an AFV's own MPh, but there is no MP cost for a usage attempt which fails to result in the smoke dispenser being fired. The one MP expenditure for smoke dispenser firing cannot coincide with any MP expenditure for any other use. During the opponent's MPh, a smoke dispenser usage attempt can be made following any MP/MF expenditure by an opposing unit in the vehicle's LOS as if it were intervening with Defensive First Fire.

13.3 FIRING: When a player wishes his AFV to attempt smoke dispenser use, he makes a DR (Δ). If that Final DR is ≤ its Usage Number, it has *fired* and a smoke counter is placed as per the applicable rule (below) for the type of dispenser used. If the Final DR is > the Usage Number, it did not *fire* (and smoke was not placed), but the player is free to have this AFV attempt such use again in another Player Turn. A BU AFV must add a +1 DRM to its Smoke Dispenser Usage DR *[EXC: sN firing HE in the CCPh; A11.622]*.

13.31 sD: A successfully fired sD places white dispersed smoke at the Base Level of the AFV's own hex.

13.32 sM: A successfully fired sM places dispersed white smoke at the Base Level of any hex of the firer's choice that is at a range of 1-3 hexes from the AFV, is within its TCA and in its LOS. Whenever an AFV changes its CA to fire its sM, the appropriate Case A TH DRM applies to the sM Usage DR. During the AFV's MPh that Case A DRM would not also apply to subsequent Bounding First Fire by CA-restricted weapons in that new CA (C5.13), but during the opponent's MPh it would apply (as per 3.51) to subsequent Defensive First Fire by such weapons. However, in all cases the CA actually changes (and that Case A DRM will apply to those Defensive First Fire attacks) only if the sM successfully fires. A moving/Non-Stopped (C.8) AFV must add a +2 DRM to its sM Usage DR. Hindrance DRM between the AFV's hex and the hex it wishes to place smoke in also apply to that DR (including a subsequent dr for Dust if necessary; F11.7). An AFV may not fire sM from inside a building or from within dense jungle.

13.33 sP: An AFV's Inherent crew must be CE to attempt sP usage. A successfully fired sP places white dispersed smoke at the Base Level of the AFV's own hex.

13.34 sN: An AFV must always be BU to use its sN. A successfully fired sN places white dispersed smoke at the Base Level of the AFV's own hex *[EXC: HE use during CC; A11.622]*. If the sN Usage Number takes the form "#⁴/#⁵" , the sN uses the left-hand # for a scenario set in 7-12/44 (inclusive) and the right-hand # in 1945.

© 2000 Multi-Man Publishing, LLC



13.35 VEHICULAR SMOKE GRENADES: The crews of almost all armed vehicles carried smoke grenades for self protection. Therefore, the Inherent Crew (or HS) of any vehicle with a MA weapon indicated on its counter may place Smoke Grenades (A24.1) using the same rules as attempting to fire a Smoke Dispenser (13.2-.3), with the following exceptions: A CT AFV crew must be CE to attempt placement; a usage dr of "1" is necessary for successful placement by an armed-but-unarmored vehicle or BU OT AFV, or of "≤ 2" for any CE AFV (a "6" dr has no effect beyond prohibiting placement); if successfully placed, a ½" *Smoke* counter is placed in the vehicle's own Location and treated as per A24.11; if placed during the opponent's MPh, the Smoke counter is removed at the end of that phase. Vehicular smoke grenades may not be used in any other way by PRC, nor may they be Removed/Scrounged. A vehicle may attempt to use vehicular smoke grenades *or* a smoke dispenser, but not both, during the same MPh.

14. RADIOLESS AFV

[One of the reasons that French and early Russian armor was no match for the less numerous German panzers was the formers' lack of wireless equipment, which greatly hampered them in maneuver.]

14.1 AFV RADIO: All AFV are assumed to have an inherent radio unless they contain an ® on their reverse side. An AFV cannot use a radio counter to nullify its lack of an Inherent radio, nor can an AFV radio be used to call in OBA or otherwise spot for Indirect Fire *[EXC: OP tank; H1.46]*.

● **14.2 PLATOON MOVEMENT:** Radioless AFV must move in platoons or pay penalties as per 14.23. Two or three AFV may create a platoon during setup, at the start of their MPh or when leaving a Convoy (E11.252), provided each AFV fulfills the requirements of 14.21. Once a platoon is formed, a member of the platoon can only cease using Platoon Movement per 14.22-.23.

14.21 MECHANICS OF MOVEMENT: A platoon uses Impulse Movement (14.3) and may not attempt ESB or make a Minimum Move. At the end of each Impulse (but not during the Impulse) and when called for by other rules, each AFV in the platoon must:

- Be adjacent to/in the same hex as another AFV of the same platoon.
- Have a LOS (ignoring SMOKE/NVR) to that AFV.
- Share the same Stopped/Non-Stopped/Motion status (including Forward/Reverse Movement) with all other platoon members.

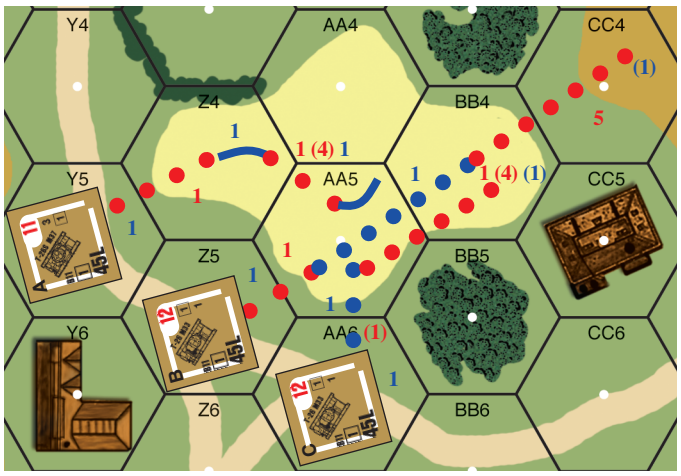


If ≥ one AFV in the same platoon is subject to Bog/Mechanical-Reliability/Stall DR, only one DR per condition is made for the platoon at the end of the Impulse, before any attacks (14.32). If Bog/Immobilization occurs, Random Selection is then used—but only among the AFV that would normally have been Bogged/Immobilized by that Final DR (with different DRM potentially applying to different AFV). If Stall occurs, all AFV in that platoon are immediately considered Stopped; make one Delay DR (regardless of how many AFV Stalled) and the Start MP plus Delay DR is the Impulse MP cost.

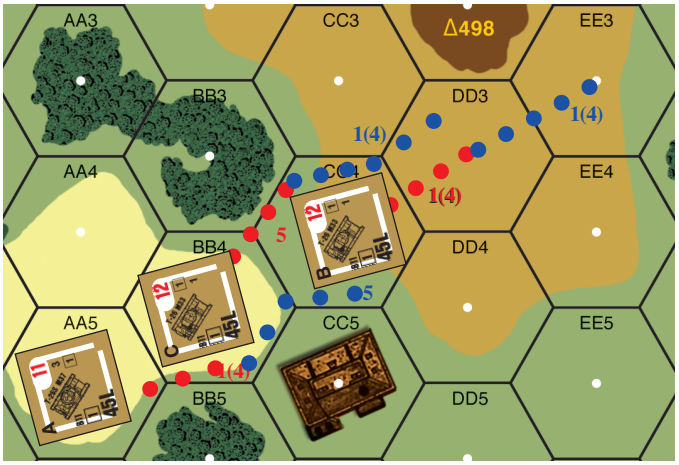
14.211 MOTION ATTEMPT: If a platoon wishes to make a Motion attempt during the enemy MPh (2.401), the enemy unit triggering that attempt need have expended MF/MP in the LOS of only one AFV in that platoon; one Motion Attempt dr suffices for the entire platoon, but it is subject to a drm equal to the number of AFV in that platoon.

14.212 OFFBOARD MOVEMENT: A platoon may have partly entered or exited the playing area at the end of an Impulse (even the last Impulse of their MPh, unless disallowed by A2.5) if they meet all Platoon Movement requirements (for the purposes of 14.21, LOS may be traced to/from an offboard unit). An offboard radioless AFV must use Platoon Movement if possible.

14.22 GAPS: If an AFV is destroyed, Recalled, uses non-platoon movement (14.23) or becomes Immobile, it is no longer considered part of the platoon. A radioless AFV that suffers Recall is thereafter treated as if radio-equipped. If the remaining two AFV of a former three-AFV platoon do not fulfill the requirements of 14.21, they must move to do so at the end of the first impulse in

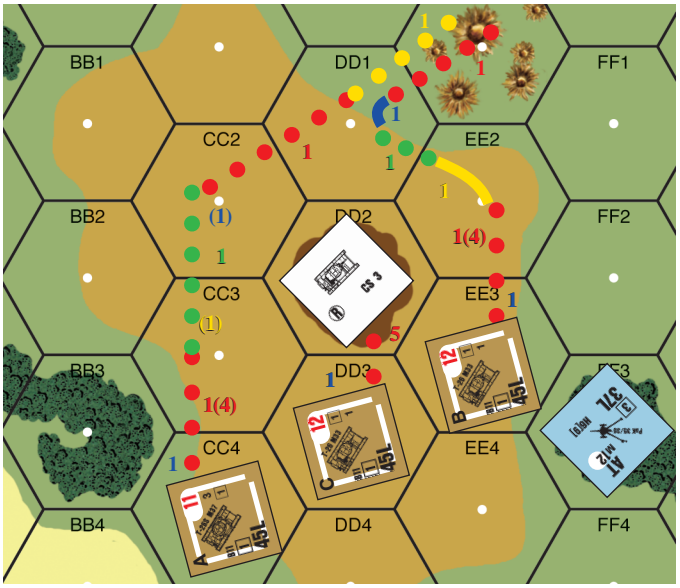


● EX: A radioless Russian T26S M37 (with 11 MP) and two radioless T26 M33 (with 12 MP), whose ID letters are A, B and C are Stopped in hexes 3Y5, Z5, and AA6 respectively. All have AA4 within their VCA, and they wish to exit the playing area via EE1 using Platoon Movement. As their first Impulse all three tanks expend one MP to Start, before making one Mechanical Reliability DR (2.51) which they pass; this allows all three tanks to continue movement. The MP expenditures for the first Impulse are shown in blue. Next, tank A expends one MP to enter Z4 and tank B does likewise to enter AA5. Tank C can expend two MP—either to enter AA5 or to Bypass to vertex BB5-BB4-AA5—but if it does, then all three tanks will have spent two MP during this Impulse (14.31)—so it instead remains in AA6 doing nothing. Tank C is considered to have expended one MP in this Impulse, but is not a Moving Target (since it did not enter a new hex). The moves and MP expenditures for the second Impulse are shown in red with Impulse MP expenditures due solely to being part of the platoon shown in parentheses. Next, tanks B and C enter hexes BB4 and AA5 respectively while tank A changes VCA to AA4-AA5 (shown in blue). Since each tank paid one MP to do so, the platoon thus expends one MP for this Impulse, for a total expenditure of three MP so far in the MPh. On the fourth Impulse, tank B continues to move by expending five MP to enter CC4 (shown in red) while tank C enters BB4 and tank A enters AA5. This Impulse costs each tank of the platoon five MP for a total of 8 so far. Further movement in the desired direction (into DD3, CC4 and BB4 for tanks B, C, A respectively) would force all tanks to expend five MP, thus exceeding the platoon's 11 MP allotment. So the last Impulse only consists of tank A changing VCA to AA4-BB4, expending one MP (shown in blue), for a total of nine MP expended so far in the MPh. The tanks could expend their tenth MP to Stop, but choose to remain in Motion.



In their next MPh tank B enters DD3, tank C enters CC4, and tank A enters BB4; thus the platoon (and each tank) expends five MP in its first Impulse (shown in red). In the next Impulse tanks B, C and A enter EE3, DD3 and CC4 respectively—costing the platoon (and each tank) another five MP, for a total of ten MP expended so far in the MPh (shown in blue). A hidden AT Gun in FF3 (with CA EE3-EE4) now fires at tank B but misses, so tank B (and thus the entire platoon) expends one MP to Stop in order to return fire. Regardless of the outcome, the platoon's MPh is now ended because any further movement will exceed tank A's 11 MP allotment. The one MP expenditure for Stopping is not shown in the illustration.

©2006 Multi-Man Publishing, Inc.



● EX: Continuing the previous example (and assuming that all three tanks and the AT Gun still survive unscathed), in the platoon's next MPh all three tanks expend a Start MP and pass a Platoon Mechanical Reliability DR (shown in blue). The AT Gun now Defensive First Fires at tank B (and retains ROF), but fails to affect the tank. The AT Gun could not fire again even if it had LOS to the other two AFV, since they expended their 1 MP simultaneously. Next, tank C continues by spending five MP to enter DD2, while tanks B and A enter EE2 and CC3 respectively. The platoon has thus expended five MP in its second Impulse (shown in red). The AT Gun fires at tank C and now destroys it (leaving a wreck in DD2), but fails to maintain its ROF. Tank A and B must now move adjacent and in LOS in the first Impulse one of them enters a new hex (or spend the rest of their MPh in their current hexes—in which case the platoon will be disbanded). To accomplish this, tank B expends one MP to change its VCA to DD1-EE1 while tank A does nothing (shown in yellow), then tank B enters DD1 and tank A enters CC2 expending one MP (shown in green), before tank B change its VCA to DD0-EE1, while tank A does nothing (again shown in blue). The platoon has now expended nine MP in its MPh. In the next Impulse (shown in red) tanks B and A use their tenth MP to enter EE1 and DD1 respectively. No First Fire ensues, so using their 11th MP (shown in yellow), tank B can exit while tank A enters EE1, where it must end its MPh in Motion. Since a platoon is a single entity, in its next MPh tank A must exit via the same hex exited by tank B or via a hex adjacent to it. Of course, tank A could instead leave the platoon and move normally if it first passes a NTC in this next MPh (14.23), but if it fails the NTC it would have to end its MPh in its present hex. If the AT Gun had destroyed tank B as well as tank C, then tank A would be free to continue its MPh from CC3. In its next MPh it would have to pass a non-platoon movement NTC if it wanted to move.

which one or both of them enter a new hex (unless they end their MPh in their current hexes). If they haven't done so by the end of their MPh or this happens during any other phase, they immediately cease using Platoon Movement. If only one AFV is remaining, it is free from platoon restrictions for the remainder of its current MPh.

14.23 NON-PLATOON MOVEMENT: Radioless AFV need not set up in platoons *onboard*, but if at the start of its MPh such an onboard Mobile AFV is alone (i.e., doesn't meet the 14.21 requirements) or wishes to break off from its platoon (this is the only time it can do so voluntarily), it must pass a NTC in order to move during that MPh. If it fails the NTC it must immediately Stop (if currently Non-Stopped) and expend the rest of its MP allotment as Delay MP, and may not perform any other action during that MPh, though Passengers/Riders may unload. A lone radioless AFV need not pass a NTC before attempting a Motion dr (2.401), but must always add a +1 drm to that dr. See G12.403 for radioless AFV (un)loading from/onto a LC.

14.24 RADIO-EQUIPPED AFV: Radio-equipped AFV may use Platoon Movement as if radioless, but are then subject to all Platoon Movement penalties/restrictions *[EXC: radio-equipped AFV can depart from the platoon at the beginning of their MPh without first passing a NTC].*

● **14.3 IMPULSE MOVEMENT:** Impulse Movement is a form of movement where units in different Locations coordinate their movement. This represents situations such as Human Wave (A25.23) or Platoon Movement (14.2). During Impulse Movement, all participating units move as a stack as per A4.2, even if moving in multiple Locations. A leader using Impulse Movement only affects other participating units in his current Location, not units in other Locations of this "multi-Location stack" *[EXC: MF bonus for a leader participating in a Column; E11.52].*

14.31 IMPULSE: When using Impulse Movement, the MPh of all participating units is broken into a number of Impulses. During each Impulse each participating unit may perform a maximum of one MF/MP expenditure (EX: moving to a new Location; changing VCA one hexside; using VBM along one hexside; exiting a Foxhole; using Infantry bypass along 1-4 hexsides). Actions that cost no MF/MP (EX: dropping a SW; changing CE/BU status) may be performed as normal during each Impulse. An Impulse ends when every participating unit has completed its single MF/MP expenditure, or the player declares the Impulse to be over. Units using Impulse Movement do not need to predesignate their actions, as in normal stacked movement (A4.2).

The MF/MP cost of an Impulse is equal to the most MF/MP spent by any unit during that Impulse, and all the units are considered to have spent this number of MF/MP during that Impulse (even if they didn't perform an MF/MP expenditure). This even allows a Non-Stopped vehicle to spend MP doing nothing if other units expend MP during that Impulse. No unit may expend MF/MP unless all units participating in that Impulse have enough remaining MF/MP, so all the participants must end their MPh if one of the units lacks necessary MF/MP *[EXC: wounded SMC; A25.232].*

14.32 FIRST FIRE: All rules for Defensive/Bounding First Fire treat all units moving during an Impulse as a single stack. Hence, Defensive/Bounding First Fire may only be declared at the end of each Impulse *[EXC: before the first Impulse; C5.33].* The same restriction applies to other actions by the DEFENDER (EX: Motion Attempt, Vehicular Smoke Dispensers).

14.33 ARMORED ASSAULT: Impulse Movement and Armored Assault (9.31) may be combined with certain restrictions. The only forms of Impulse Movement that can be combined with Armored Assault are Human Wave (A25.23) (including Banzai Charge [G1.5], but not Cavalry Wave) and Platoon Movement (14.2).

When combining Impulse Movement and Armored Assault, all units must use Impulse Movement—even if some units normally would not (e.g., a single AFV, a single Infantry stack). There will be two simultaneous Impulses, one for vehicles and one for Infantry. The MF and MP cost are calculated independently per 14.31 for each of the two Impulses, possibly with zero MF/MP cost for one of the two Impulses. For the purpose of follow-up attacks, each Defensive First Fire attack constitutes one allowed attack against all units in both groups.

EX: Two AFV moving as a platoon expend 2 MP in an impulse while the squad Armored Assaulting with the second AFV spends 1 MF. A Gun attacks and eliminates the first AFV on the first MP and attacks the second AFV on the second MP. This second shot cannot affect the squad, which spent only 1 MF.

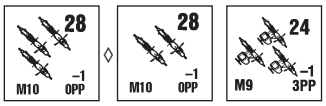
14.331 BREAKING OFF: When one or more units cease using Armored Assault, those units must postpone their MPh while the remaining units finish their MPh, before the postponed units finish theirs—or vice versa *[EXC: platoon (or HW units) no longer using Armored Assault continue to move simultaneously until all units of their platoon (or Human Wave) have ceased using Armored Assault].*

14.332 HUMAN WAVE: Units participating in a Human Wave may use Armored Assault to move with one single AFV, or with some or all AFV of one platoon. Only the HW Units that began their MPh beneath an AFV and have moved in a combined stack with it receive the Armored Assault benefits.

14.333 PLATOON: When using Platoon Movement, the platoon may use Armored Assault to move with one individual Infantry stack, or with HW units per 14.332.

©2006 Multi-Man Publishing, Inc.

15. MOTORCYCLES & BICYCLES



15.1 Motorcycles are vehicular because they transport Riders and expend MP (rather than MF) as per the Motorcycle column of the MP Entrance Cost section of the Terrain Chart. Motorcycle counters are provided both with and without sidecars. For ease of reference, a motorcycle without a sidecar will be referred to as a "cycle"; that with a sidecar will be referred to as a "sidecar". The word "motorcycle" will collectively refer to both. Each counter with three overhead depictions represents enough machines to transport a squad and ≤ four SMC. Each with two overhead depictions represents enough machines to carry a HS or crew and ≤ four SMC. One machine (a single overhead depiction) may transport ≤ two SMC (≤ three if a sidecar).

15.2 PORTAGE: Cycles have no portage capacity. A Sidecar may carry three PP of SW if squad size, two if HS size, and one PP if SMC size.

15.3 STACKING: Only the Riders of a motorcycle count for stacking purposes. The presence of a motorcycle in a hex does not affect other vehicular entrance or movement costs.

15.4 MOVEMENT: Motorcycles have no Inherent Driver. To move they must be mounted (placed beneath) or Pushed by Infantry. A motorcycle counter may not be moved by an Infantry unit smaller than that which it can transport (excluding extra SMC). Each motorcycle counter contains an M#, and is Pushed as if it were a Gun (C10.3) *[EXC: a SMC motorcycle can be Pushed by one SMC, and one other SMC may help to Push it, giving a -1 DRM to its Manhandling DR (MMC Gun Pushing DRM apply normally)]*. Motorcycles may not be moved, Pushed, mounted or dismounted during the APh. A vehicle may not carry or tow a motorcycle(s).

15.41 MOUNT/DISMOUNT: To mount or dismount a motorcycle requires one MF of the Personnel unit's basic four MF allotment plus ¼ of the total MP allotment of the motorcycle. The Personnel unit also loses one MF of his basic MF allotment for every ¼ (FRU) of the motorcycle's total MP allotment which he uses during that MPh. Once a Personnel unit uses all of his basic MF allotment he cannot be carried farther by the motorcycle—regardless of the number of MP the latter may still have left unused. A dismounting motorcyclist is subject to *possible* FFMO, but FFNAM always applies to mounting/dismounting Personnel (A4.6).

EX: A leader moves into an Open Ground hex (one MF), mounts a cycle counter (one MF/ 7 MP), rides the cycle a distance of 11 road hexes (two MF/7½ MP including one MP for Starting and one MP for Stopping) but cannot dismount because he has used the basic four MF allotment of all conveyed Personnel units (A4.11).

15.42 A motorcycle may not use Reverse movement. A motorcycle pays no MP penalty for entry of a hex containing a wreck/vehicle, but must pay normal MP costs for Starting, Stopping, and changing VCA.

15.43 OVR: A motorcycle may be ridden through an enemy-occupied hex. Sidecars may even make an OVR (Δ) in the same manner as any unarmored vehicle, adding ¼ of their Riders' FP (subject to TPBF) to the attack. A motorcycle may not be voluntarily dismounted in the same Location with a Known enemy unit *[EXC: in Melee; A11.71]*.

15.44 SPLITTING: A SMC may create a single machine counter from any MMC motorcycle counter at any time during the MPh in order to move separately from the MMC counter or immediately to accommodate combat losses (15.52). If a squad on a motorcycle counter Deploys (or is Replaced by its two HS; A19.13), that counter is flipped to its HS side and another HS motorcycle counter is placed to accommodate the other HS. See 15.52 for Casualty Reduction. Motorcycles of the same type may Recombine into larger capacity counters whenever the proper number occupy the same Location while unmounted, or whenever their Riders are eligible to Recombine into squads (A1.32).

15.45 TERRAIN RESTRICTIONS: A motorcycle may be mounted in and ridden out of terrain it is Pushed into; terrain restrictions apply only to entry, not exit.

15.46 WRECK CHECK: A motorcycle being ridden into shellholes or a stream, or across a non-road hexside via an Elevated Road (including leaving an ElRR), Double Crest or Abrupt Elevation Change, must check for wreck by making a dr. If it rolls a 6, the Rider breaks and is automatically dismounted at the Base Level of the hex it was attempting to leave, unless the hex it was attempting to enter has a lower Base Level, in which case the wreck occurs in that hex. The wreck result is implemented prior to the occurrence of Defensive Fire attacks prompted by that MP expenditure. Bail Out does not apply. The motorcycle is still usable even if it fails the Wreck Check dr.

15.47 BOG: Motorcycles are not subject to Bog.

15.5 TARGET STATUS: Fire is directed at the Rider of the motorcycle—not at the motorcycle itself and therefore does not cause any Collateral Attack or Immobilization result. Motorcyclists are considered an Infantry Target Type with no Target Size modifier. However, all fire vs a mounted motorcyclist is subject to a -1 To Hit DRM for ordnance or a -1 IFT DRM for non-ordnance weapons. All ordnance hits vs motorcyclists are resolved on the IFT (but not on the ★ Vehicle Line). However, as Riders, motorcyclists are not subject to FFMO/FFNAM and would be subject to vehicular To Hit DRM. Any unmounted motorcycle is considered a SW for purposes of self- and Random Destruction (A9.73-.74).

15.51 KIA: Any KIA result vs a motorcyclist removes it and the motorcycle from play. Eliminated motorcycles do not create a wreck or wreck Blaze.

15.52 K/#: A motorcycle with either a squad or more than one Rider counter is subject to Casualty Reduction as per Random Selection. Any excess motorcycle capacity caused by the elimination/Reduction of the motorcyclist is removed by substituting the correct size motorcycle counter for its current Rider; any Riders not affected are then governed by the results of the subsequent MC or automatic break result.

15.53 #MC: A motorcycle does not take a MC but motorcyclists must. Should the motorcyclist fail the MC, he must Bail Out if the motorcycle is currently moving or in Motion and thereby chance elimination or Reduction. The motorcycle is not removed and is subject to Recovery as if it were a SW. If a MMC motorcycle has two Riders (a MMC and a SMC) and the MMC breaks while the SMC does not, the MMC motorcycle counter can be augmented by a single machine counter to accommodate the split. However, if a single machine carrying two SMC receives fire causing one of the two SMC to break, both SMC must Bail Out (although only one of them would be already broken and thus chance immediate elimination in the resultant NMC). If the motorcycle is stopped when the Rider breaks, the Rider automatically dismounts with no further side effects.

15.54 PTC: A Pin result has no effect vs a motorcyclist so PTC are not resolved vs them—even in scenarios containing Booby Traps which are triggered by TC DR.

15.55 LLMC/LLTC: A LLMC/LLTC has no effect vs a motorcyclist, nor can a broken/eliminated motorcyclist cause a LLMC/LLTC (A10.2).

EX: A 75mm Gun Prep Fires on an Open Ground hex six hexes away which contains a 2-2-8 Infantry crew and a squad-sized cycle counter in Motion carrying a 4-6-7 squad and an 8-0 leader. All three units are subject to the Infantry Target Type To Hit Table with a Modified To Hit Number of 8. However, because the cycle is in Motion there is a +2 DRM (Case J) to it (in addition to the -1 DRM as mounted motorcyclists) so the crew will be hit by an Original To Hit DR ≤ 8, but the squad and leader on the cycle will be affected only if the Original To Hit DR is ≤ 7. Assume the Original To Hit DR is ≤ 7 and the resulting IFT DR is a 3. This results in a K/3 result on the 12 FP column of the IFT. A Random Selection DR is made to determine which of the three targets has been eliminated, wounded, or Reduced, and results in the squad being the unit affected and Reducing the motorcycle counter in size accordingly. Consequently, the crew and leader each take a 3MC which they pass. The HS fails the subsequent 3MC, causing it to break and take a NMC while Bailing Out. If it fails this NMC also it will be eliminated, but a HS cycle counter will remain in the hex. The leader, having passed his 3MC, remains mounted in the hex on a SMC cycle counter still in Motion. Had the HS passed its 3MC, both it and leader would have remained in Motion on a HS cycle counter.

©2006 Multi-Man Publishing, Inc.

15.56 WOUNDS: A motorcyclist which is wounded suffers no additional effects and may continue movement with his normal four MF allotment (A17.2). He does not have to Bail Out or dismount.

15.6 RIDER FIRE: Riders mounted on cycles may not attack on the IFT or CCT. Riders mounted on sidecars may attack with half FP as Mounted Fire, which could be further reduced as AFPh Fire/any other application of halving FP. The only SW use allowed on sidecars is LMG/Thrown DC; a single sidecar would need two SMC Riders to be able to use a SW.

15.7 CAPTURE: Since a motorcycle has no inherent driver, it is not captured like a vehicle—it is Recovered like any SW. There are no penalties for captured use.

15.8 BICYCLES: Bicycles are represented by cycle counters, but are considered SW—not vehicles. All cycle rules apply except as amended below.

15.81 MOVEMENT: Bicycles have no MP allotment of their own. Instead, they have the same MF allotment as their Riders would if Infantry (including Leader Bonus and Double Time, if applicable) and use Infantry—not vehicular—movement *[EXC: they may not use Assault Movement]*. Bicycles may be ridden only across road hexsides, where they halve the MF costs of their Riders—provided they are not in a shellhole or entrenchment hex, gaining elevation, on a dirt road during Mud, or on a non-plowed road during Snow. A bicycle receives a one MF bonus for each level of elevation it descends while on a road and a one MF bonus for remaining on a road throughout its MPh (as per B3.4). There is no cost to mount/dismount a bicycle.

15.82 PORTAGE: Bicyclists have no portage capacity and cannot be used to transport SW counters. Bicycles may be portaged as one PP, but not during the APh because (like motorcycles) they cannot be moved during the APh.

15.83 OVR: Bicycles may not make an OVR attack or be ridden into a Known enemy unit's Location.

15.84 WRECK CHECK: Bicycles need not check for a possible wreck when entering a shellhole hex.

15.85 TARGET STATUS: Bicycle Riders are Infantry targets and as a result thereof, a bicyclist never Bails Out, but is treated as a normal Infantry target for all purposes, including "PTC" and FFMO/FFNAM effects, in addition to a -1 DRM as a mounted bicycle Rider (15.5).

16. DD TANKS & AMPHIBIANS

16.1 A DD tank is amphibious only while its screens are erect.[13] Should the vehicle be hit by any non-Dud ordnance-fired HE/HEAT while on land, the screens are considered worthless thereafter—regardless of the outcome of the To Kill DR.

16.11 The screens may be dropped automatically from inside the AFV during any friendly MPh in which it is on a land hex or is Wading (G13.42).

16.12 DD tanks must be CE to move with screens erect and may not fire, use VBM, carry Riders, or occupy any building, rubble, woods, brush, or orchard hex *[EXC: woods-roads and orchard-roads]* while screens are erect. The COT of any land hex is increased by one while screens are erect.

16.2 Amphibians engage their land movement rate when moving from a Water Obstacle to a land hex and vice versa. Amphibians may use a combination of their amphibious and land MP in the same MPh; for every amphibious MP used, the vehicle loses half of its land MP allotment (the land MP loss is one-third for those amphibious vehicles with a water mode MP rate of three), and vice versa. Use of even a half land MP causes the loss of an amphibious MP. An amphibious vehicle in a Water Obstacle is always in Motion unless stunned or shocked. A stunned or shocked amphibian in a Water Obstacle must expend an amphibious MP in its current hex to start movement again.

16.21 Cost of movement into a Water Obstacle (not Marsh; B16.42) is one amphibious MP. See B21.13 for crossing an all-water hexside into a non-Water Obstacle hex.

16.22 Amphibians must drift (B21.121) in the APh as per the type of current in force. An immobilized amphibian in a Water Obstacle drifts as long as it is in a hex affected by current.

16.23 Amphibians must check for Bog (8.2) in waterline hexes when moving from Water Obstacle to land hexes.

16.3 An amphibian in a Water Obstacle (not marsh) always presents a Very Small target size (+2 TH; 1.75) as well as being HD. The HD status is not applicable to any firer with an elevation advantage over the target which is > the range to that target.

16.4 A DD tank or unarmored amphibian (such as the DUKW) receiving fire in a Water Obstacle defends as an unarmored vehicle on the IFT, but non-ordnance FP against it is halved. A non-DD amphibious AFV (such as the LVT4) is immune to Small Arms Fire (although any Vulnerable PRC are not), and must be destroyed on an AFV Kill Table or by Indirect Fire in order to be sunk.

16.5 Any amphibian eliminated in a Water Obstacle is considered sunk and leaves no wreck. The crew/Passengers of a sunk amphibian are automatically eliminated.

16.6 An amphibian presents no LOS Hindrance while in a Water Obstacle.

16.7 An Amphibian may not carry Riders while in a Water Obstacle.

16.8 Because of their vulnerability, DD tanks and unarmored amphibians were kept well out of sight until such time as they were to actually enter the water. Therefore, such vehicles—even if listed as part of the setup OB in a scenario—may remain offboard until their owner wishes them to enter during a friendly MPh.

CHAPTER D FOOTNOTES

1. *1.321 RESTRICTED SLOW TRAVERSE (RST):* An AFV with a Two-Man turret was at a marked tactical disadvantage in combat; the commander's need to divide his attention between directing his crew and serving the Gun resulted in lowered efficiency in both roles. Italian and Russian AFV aggravated this defect by using the commander as the gunner rather than as the loader, with the result that whenever he was unbuttoned to properly direct the AFV or to gain a better view of his situation, the Gun could not be fired at all. This explains much of the relative ineffectiveness of the masses of tanks which the Red Army fielded in 1941. Prior to the war only the Germans and British had grasped the fact that an undistracted commander (as well as a radio) was necessary for the efficient use of a battle tank. The One-Man turrets of French tanks aggravated their situation even more. Most tanks with these drawbacks are represented by having ST and a lower ROF, and thus require no special rules.

2. *1.6 ARMOR FACTOR:* The AF represents the average effective armor thickness in cm of that target Facing and aspect, weighted to take Slope into account. A 0 AF actually represents < one cm of armor, while 1 AF represents 1-1.5 cm.

3. *2.401 MOTION STATUS:* The ability to declare Motion status during the opponent's MPh addresses the issue of a fast defender which is forced to sit and watch while a slower but more heavily armed AFV moves next to it before firing. In reality, the lightly armed vehicle would use its speed to move away as soon as an enemy AFV was observed. While this rule does not prevent the ATTACKER from using the turn sequence to artificially cut down the range to such a would-be fleeing target, it does negate some of those advantages by putting the vehicle in Motion, thereby making it not subject to the Point Blank Range To Hit DRM (Case L) and increasing its chances of escape by allowing it to move in its MPh without first expending a MP to start/change VCA.

©2006 Multi-Man Publishing, Inc.

4. *2.5 ESB:* Tracked vehicles were capable of greater speeds than their MP allotment represents, reflecting a driver's reluctance to punish his vehicle at top speed for fear of mechanical breakdown or throwing a track - especially after long periods in the field without proper maintenance.

5. *2.51 MECHANICAL RELIABILITY:* While most AFV could be expected to function normally within the time span of an average ASL scenario, others were inherently more susceptible to frequent and unexpected mechanical failures usually due to over-stressed/poor quality components or an unsound design. Such unreliable AFV should be at some risk of breakdown regardless of the scenario's length or the speed at which they are moving. This phenomenon is obviously exaggerated within the limited time frame of an ASL scenario to compensate for the very presence of such vehicles - this unreliability manifesting itself most often in the failure of such vehicles to even reach the battlefield due to breakdowns en route. A more realistic rule would be to simply make a dr at the start of a scenario which a vehicle with poor mechanical reliability would have to pass in order to be included in the scenario. The drawback to such a system is that play balance can be destroyed before the game even begins.

5A. *2.52 AXIS VEHICLES:* This rule is included because early in the desert campaign these vehicles were not properly modified to cope with the harsh conditions of the desert. Of primary importance were special air and oil filters for engines—the lack of which, in combination with the tremendous clouds of dust raised by moving vehicles and the great distances rapidly traversed, caused engines to overheat/seize-up and led to the premature breakdown of other components.

6. *3.5 VEHICULAR MG/IFE FIRE:* A vehicular MG is not given Multiple ROF capability unless it is listed as the vehicle's MA because of the limited vision and multiple duties of its one-man crew. This is especially true of BMG/CMG armament, which is usually secondary armament and cannot even bring fire to bear without special movement of either the vehicle or the turret (which may well be a hindrance to other tasks of the vehicle with a higher priority). Similarly, although the AAMG of many tanks is often the equivalent of a MMG or HMG in terms of equipment, it is still manned by only one man—whose other duties are usually deemed more important (and less dangerous) than the manning of an exposed MG.

7. *3.71 LOW AMMO B#:* Most vehicles with extremely limited ammunition loads were not intended for use in Direct Fire situations such as are most commonly depicted in ASL. Such vehicles are usually a source of OBA, where their ammunition needs are handled by supporting supply trucks. More detailed rules for the use of ammunition vehicles and replenishment of ammunition can be found in E10.

8. *6.8 CARRIERS:* The British Army did not have a halftrack as such, aside from the Lend Lease M-5 and its variants. Far more common in Commonwealth service were the Universal, Loyd, and Bren Carriers. These tracked, armored vehicles were mass-produced by a variety of manufacturers in many different armament versions, and were invariably referred to as Carriers. Carrier "crews" were primarily mechanized infantry forming an integral part of the infantry battalions in the British Army. Each battalion HQ Company contained one Carrier platoon of 64 men and 13 Carriers, which functioned as a mobile assault or reserve unit.

9. *7.11 FP:* Ordnance is given little weight in calculating the FP of an OVR attack because it is of little value in the close-quarter fighting reflected by an OVR. The vehicle depends primarily on its movement, imposing presence, and secondary armament firing on targets of opportunity for its lethality. Most OVR situations would not leave the vehicle with time to bring its MA to bear against targets at such close range and probably in full flight, nor might the vehicle commander be willing to stop his vehicle long enough to aim in such close proximity to enemy Infantry without escorting Infantry of his own.

10. *7.15 OVR TEM:* The -1 FFMO DRM is applied to the defender in an OVR in Open Ground because it is likely that all but the most seasoned troops will panic and move about when enemy armor is in their midst if they have no cover to hide in. Similarly, the TEM for walls/hedges is applicable if the vehicle crosses that OVR hexside because although the attack is actually resolved in the target hex, it is also taking place as the vehicle approaches the target hex. Such walls/hedges provide excellent cover to hide behind while the vehicle passes by.

11. *9.3 AFV/WRECK TEM:* It is not our intention to imply that a wrecked truck is any more of a LOS Hindrance or beneficial cover than an intact one. However, without this rule "brave" players tend to purposely drive trucks in harm's way to screen more valuable units from fire (much to the chagrin of their short-lived cardboard drivers no doubt).

12. *11.1 GYROSTABILIZER:* The Gyrostabilizer was a revolutionary feature found only in certain AFV of U.S. manufacture, commencing with the M3A1 light tank. This device allowed the Gun to maintain its aim in elevation regardless of the terrain traversed. Other tanks of the period required much longer to re-acquire a target after movement, thus presenting an easier target for return fire. However, many tank commanders disconnected their Stabilizers, preferring to halt before aiming the MA; this was due both to the danger the unpredictably moving breech presented to the turret crew, and to the difficulty in reloading the Gun when both it and the tank were moving. For this reason, players who feel Gyrostabilizers pose too strong an advantage may wish to consider lowering by one the Multiple ROF of all guns so equipped. Allowing every AFV equipped with a Gyrostabilizer the full benefit of a Gyrostabilizer is therefore arguably unrealistic as many crews were not proficient in its use and found it overly complicated and time consuming.

13. *16.1 DD TANKS:* Although other tanks pioneered the DD (Duplex Drive) principle, it was the Sherman that used it in action. The vehicle was water-proofed and fitted with a collapsible canvas screen around the hull sides, thus displacing enough water to keep it afloat even though the vehicle itself was suspended below the water's surface. Both propellers and tracks were driven simultaneously, enabling the vehicle to engage the land transport mode instantly upon contact with the shore.

©2006 Multi-Man Publishing, Inc.

E. MISCELLANEOUS

ORDER OF PRESENTATION:

1. Night
2. Interrogation
3. Weather
4. Ski Troops
5. Boats
6. Swimming
7. Air Support
8. Gliders
9. Paratroop Landings
10. Ammo Vehicles
11. Convoys
12. Barrage

E.1 OPTIONAL/SSR: Chapter E is composed entirely of Optional rules and SSR. As such, no rule herein will be used unless specifically cited by the scenario in play or agreed upon between the players prior to play. For some players, the rules in Chapter E are superfluous—adding more in complexity and playing time than they add in enjoyment. For others, however, the system would not be complete without these provisions. Therefore, players are free to pay as much or as little attention to this chapter as suits their own purposes. For that matter, within the privacy of their own groups, players are free to design their own House Rules or modifications. However, do not expect others outside your immediate gaming circle to embrace them as willingly, or us to resolve disputes arising from the use of House Rules.

E.2 RULES ORDER: Whenever a seeming contradiction occurs between rule cases, the higher alphanumeric rule case (e.g., E1. is a higher numbered rule than A2.) always takes precedence, barring mention of a specific exception.

E.3 RANDOM LOCATION DR: This is a DR as per C1.31 (i.e., the SR final placement procedure) to determine a randomly selected hex. If normally measured from a Sniper counter's hex and the Sniper counter has been eliminated, base the Random Location DR on a hex that both players agree is within six hexes of as many ATTACKER units as possible.

E.4 MAJORITY SQUAD TYPE: An OB (or stack) that contains more than one type of Personnel unit is considered to have a Majority Squad Type equal to that of the most numerous squad type (including Prisoners) in that OB (prior to setup) or stack—weighing each unit by its respective US#. If the number of such types is equal, the Majority Squad Type is that of the least advantageous (to the owner) type among the numerically-tied types.

EX: A stack consists of a Stealthy leader, squad and crew, and three Normal HS. There are six points of Stealthy units and six points of Normal units in the stack, so the Majority Squad Type of the stack is Normal.

E.5 AERIAL RANGE: The range to/from an Aerial target is always doubled (i.e., each hex of range is counted as two); when this doubled range is mentioned in the rules, it is always referred to as the Aerial Range. PBF/TPBF (including TH Cases E and L) is NA, but halved FP for Long Range Fire is allowed vs an Aerial target.

E.6 AERIAL LOS HINDRANCES: Level 2 SMOKE is considered a Hindrance to Aerial attacks/Sighting TC only if the SMOKE is in the ground target/firer's hex. Level 4 SMOKE (i.e., WP and Blazes not Dispersed by a Mild Breeze—regardless of the elevation at which it originates) is considered such a Hindrance if in the ground target's/firer's hex or adjacent to it in front of and along the LOS to the Aerial target/firer. SMOKE in the Aerial unit's hex is not a Hindrance; only SMOKE in or adjacent to the ground unit's hex is a factor in LOS to/from Aerial units.

1. NIGHT

NVR 6 cdr

1.1 NIGHT VISIBILITY RANGE (NVR): Night[1] rules are in effect only when cited by SSR. A SSR must always cite the Base NVR in effect for that scenario. The NVR is the maximum distance in hexes that any unit can see (barring LOS obstacles). This maximum distance is always measured in terms of the least number of hexes from the viewing unit's hex to the viewed hex (inclusive only of the latter), regardless of the actual number of hexes crossed by the LOS. Mark the current Base NVR by sliding the NVR counter along the Base NVR track of the Chapter K divider Scenario Aid Card.

1.101 BEYOND NVR: Any unit at > another unit's NVR is beyond the hex range of visibility, and is therefore out of the latter's LOS unless marked by a Gunflash (1.81). Illuminated Locations (1.9)/moving vehicles (1.14) can be treated as being within NVR even when they are beyond the NVR. The NVR of all units in an Illuminated Location is limited to Illuminated areas only *[EXC: Gunflashes are seen as per 1.8].*

1.11 DYO: To determine the Base NVR in a DYO scenario for which research has not suggested an appropriate value, make a DR on the NVR table prior to setup, but after rolling for Weather (3.) if Weather rules are in play. The colored dr indicates the Cloud Cover and the white dr indicates the phase of the moon. A +1 drm applies to the colored dr if the scenario occurs in December, January, or February. If Weather rules are in play, Cloud Cover is automatically Overcast during Overcast/Falling Snow weather.

NVR TABLE

Final dr	colored dr* Cloud Cover	white dr Moon Phase
≤ 2	None	Full
3,4	Scattered	Half
≥ 5	Overcast (not Overcast Weather; 3.5)	No Moon

*colored drm is +1 in Dec, Jan, Feb

Next, cross-index the Moon Phase and Cloud Cover to determine the NVR Modifier.

NVR MODIFIER

	Moon Phase		
Cloud Cover	No Moon	Half	Full
None	0	+1	+2
Scattered	-1	0	+1
Overcast	-2	-1	0

This NVR Modifier is added to 3 (or to 6 if Ground/Deep Snow is present) to determine the Base NVR for the first Player Turn of the DYO scenario.

EX: The NVR Table DR (in a scenario with no Ground/Deep Snow) is a colored 4 and a white 2, indicating Scattered clouds and a Full Moon, which means the Base NVR for the first Player Turn is four hexes.

NVR 6 cdr ◊ Scattered 1/3 wdr 1/2 wdr

1.12 NVR CHANGE: At the start of each subsequent RPh after the opening Player Turn of every night scenario, a NVR Change DR is made as an inherent part of the Wind Change DR: a 6 on the colored dr results in a one-hex change of the Base NVR. *[EXC: If the scenario specifies Scattered Clouds and a Half or Full Moon, the NVR change is not necessarily a one-hex change, but is equal to a subsequent Final dr that is divided by three (FRU) for a Half Moon, or divided by two (FRU) for a Full Moon.]* When the NVR Change colored dr indicates a Base NVR change, the white dr determines whether the Base NVR increases or decreases; a white dr ≤ 3 lowers the Base NVR (to a minimum of 0) and a white dr ≥ 5 raises the Base NVR (to a maximum of 6).[2] A white dr of 4 results in No Change *[EXC: before the first starshell/IR is placed, a dr of 4 increases the Base NVR].*

EX: The base NVR is 3; there is no Cloud cover and No Moon. A Wind Change DR of 11 is made with a 6 on the colored dr. This results in a one-hex increase in the NVR to four hexes. Had there been Scattered Clouds and a Half Moon, another dr would have to be made to determine the amount of increase in the NVR; a dr of 1-3 would result in an increase of one, a dr of 4-6 would result in an increase of two.

© 2000 Multi-Man Publishing, LLC

1.13 ZERO NVR: When a unit's NVR is 0, all Locations except the one occupied by that unit are beyond its NVR *[EXC: as per 1.101]*. Whenever a moving ATTACKER whose NVR is zero attempts to *move* into a *concealed* DEFENDER's Location (A12.15), it would *not* be returned to its just exited Location but would be vulnerable to TPBF from that DEFENDER. If so attacked, it cannot leave that Location; mark the units with a CC counter.

1.14 VEHICULAR NVR: A vehicle (and its PRC) that is Non-Stopped, or changing its VCA, is treated as being within a viewing unit's NVR if it is at ≤ $1\frac{1}{2}$ times (FRU) the viewing unit's NVR (or at ≤ twice the viewing unit's NVR if the vehicle is tracked). If that viewing unit's NVR is 0, treat its NVR as 1 for a wheeled vehicle or 2 for a tracked vehicle. The NVR from a BU AFV is halved (FRD).

1.15 SNOW: Whenever Ground/Deep Snow is present, the maximum Base NVR (1.12) becomes nine hexes, and the minimum Base NVR becomes two hexes *[EXC: between units in the same building the minimum Base NVR is still 0]*.

1.16 FORTIFICATIONS: All Fortification counters are set up hidden at night regardless of terrain, and remain hidden until their protective TEM is used, a non-Dummy enemy unit (determined by the procedure given in A12.11 for minefields) enters the Location that contains it (or enters a pillbox's—but not a cave's—hex), or extra MF/MP are used to enter/exit it in the LOS of a Good Order enemy unit or its existence causes the failure of a non-Dummy unit's attempted entry into the Location (either because the unit does not have enough MF/MP or because entry is NA; the declared MF/MP are expended in the returned-to Location, treating vehicles as if attempted VBM (D2.3) had failed). During night scenarios there is no extra cost to enter/exit a pillbox/entrenchment unless it is done in the LOS of a Good Order enemy unit.

1.17 FACTORIES: For LOS traced completely within the building depiction of a Factory, a unit's NVR is 1 hex *[EXC: if zero (1.13) or Illuminated (1.9)]*.

1.2 SCENARIO DEFENDER: The Scenario Defender in a night scenario may use HIP to set up 25% (FRU) of his onboard squad-equivalents (using squads and HS only *[EXC: Japanese include crew MMC also]*) and any SMC/SW that set(s) up with them in the same Location. The Scenario Defender may set up his remaining forces concealed, receiving Dummy counters equal to the number of squad-equivalents in his OB either at start or (separately) as reinforcements. These "?"/HIP allotments are in addition to any H1.6 purchases. Neither the "?"/HIP units need set up in Concealment Terrain but lose "?"/HIP as if they were. The Scenario Defender also has the option to record the Location as if they were HIP of any SMC/SW stacked with a HIP/concealed MMC until initially revealed rather than setting it up onboard. Such a counter must be placed onboard if it is ever in a different Location than that of the MMC or when the MMC is revealed.

No Move E1.21

1.21 FREEDOM OF MOVEMENT:[3] Each onboard unit of a Scenario Defender in a night scenario may attempt to move/advance only if it has either been attacked by the enemy, by other than OBA/sniper, or has seen a Known enemy unit at some time during that scenario (such LOS checks are free). *[EXC: If an AFV with a radio is allowed to move, all other friendly Mobile AFV (and their PRC as long as they remain PRC) with a radio may also.]* Once the Scenario Attacker has resolved any attack other than a successful Ambush, the Scenario Defender's single best leader (using Random Selection if necessary to determine the best) can gain Freedom of Movement thereafter, if currently in Good Order, if the player makes a dr (Δ) < his ELR. This Freedom of Movement dr can be made only once per friendly MPh. If a Good Order SMC is allowed to move in its MPh, any unit that begins the MPh with it, in the same stack, is allowed to move also (and need not move with it). As a memory aid, players should position all Scenario Defender units that are not yet free to move on a No Move counter (or, if preferred, they can be faced in a common direction instead). Once a unit has been freed to move, it retains this Freedom of Movement for the scenario's duration.

1.22 ELR LOSS: The ELR of a Scenario Defender in a night scenario is always printed on the OB as (and for a DYO scenario is assumed to be) one less than it would be normally. Those Scenario Defender units with an underlined Morale Factor have their ELR lowered to 4 but retain their special characteristics when exceeding their adjusted ELR (A1.23).

1.23 RECON: A SSR or DYO purchase may give the Scenario Attacker a single Recon dr after the Scenario Defender has set up, but prior to his own setup. The Final dr is the number of hexes (chosen by the Scenario Attacker) which the Scenario Defender must reveal units in, if in fact he had set up in them. Hidden units are placed in their setup hexes concealed. Concealed units in these hexes lose their concealed status (the Scenario Attacker also receives Right of Inspection of those units; A12.16) regardless of the presence of a LOS to any enemy units. If any hidden Fortifications are in the hex, they must be revealed and placed on the board *[EXC: the type/strength of mines is not revealed, nor are Fortified Buildings/tunnels]*. The Recon dr is modified by the following cumulative drm based on the Scenario Attacker's Majority Squad Type.

British, Partisans, Russians, Japanese	+1
Stealthy	+1
Germans, U.S.	0
All other nationalities	-1
Lax	-1

1.3 CONCEALMENT: "?" is generally gained/retained more easily at night, but is otherwise identical to daylight concealment. Night "?" varies from daylight "?" in only three ways:

1.31 LOSS: An Infantry unit loses Cloaking/"?" at night if it uses Non-Assault Movement in a Location that is already Illuminated *when* that unit expends MF in it, or if it enters an enemy-occupied Location during the MPh. Otherwise, it does not lose Cloaking/"?" at night when moving/advancing. A unit in the act of movement when Illumination first affects its current Location has the option to expend no more MF/MP during that MPh *[EXC: Straying units become TI; 1.53]* and thereby avoid the loss of Cloaking/"?". Movement from an Illuminated Location into a non-Illuminated Location incurs loss of Cloaking/"?" only if it requires expenditure of MF/MP in the Illuminated Location (such as leaving a foxhole—but not for crossing a hexside into a non-Illuminated Location). Vehicles/cavalry lose "?" at night just as if it were daytime.

1.32 GAIN: Situations requiring a "?" dr (A12.122) in a daylight scenario gain "?" automatically in a night scenario.

1.33 NVR: An unconcealed unit beyond a viewing unit's NVR is never Known to that viewing unit unless the target can be treated as being within NVR as per 1.101.

1.4 CLOAKING:[4] Only the Scenario Attacker uses Cloaking. A Cloaking counter is a "?" of any nationality not in play, and has all the characteristics of a "?" plus certain special benefits. Cloaked units are always concealed, but concealed units are not necessarily Cloaked. All rules pertaining to "?" apply to Cloaking counters except as specified otherwise herein.

1.41 CONTENTS: The Scenario Attacker's Infantry (only) always starts the scenario in the form of Cloaking counters *[EXC: Aerial landings]*. Each Cloaking counter has an ID letter to identify it, and is used in place of actual units. Each Cloaking counter can represent any number of Infantry and their portaged SW up to the normal stacking limits of a Location (A5.1)—or it can represent no units at all (i.e., a Dummy which can be eliminated by its owner at any time). The actual contents (if any) of each Cloaking counter are recorded by placing them in the corresponding section of the Cloaking Box of the Chapter K divider, and are kept hidden from view by placement beneath a box lid. A Cloaking counter cannot represent (i.e., its Cloaking Box section may not contain) one or more "?".

1.411 SETUP: The Scenario Attacker sets up offboard (including the possible use of Dummy Cloaking counters). He is allotted one Cloaking counter for each squad-equivalent in his OB, either at start or (separately) as reinforcements.

1.42 MF & SW: A Cloaking counter has six MF, regardless of its contents. These MF cannot be increased by any method except road (B3.4) or downhill ski (4.31) bonus. Cloaked Infantry can portage four— or five— PP SW as if they were three-PP SW. Otherwise, Cloaked Infantry cannot portage more than its IPC. However, a SW ≥ four PP cannot be fired in the Player Turn it loses its Cloaked status. Cloaked SW must be dm if possible.

© 2000 Multi-Man Publishing, LLC

1.421 MF COSTS: All MF costs for a Cloaking counter are identical to daytime costs *[EXC: a +1 DRM applies to the Falling DR (B11.41) of Climbing units during a night scenario]*. When involuntarily revealed, Cloaked units are placed on board and must immediately revert to their normal MF allotments for any future movement undertaken in that MPh, minus any MF already expended in that MPh, but with no extra penalty if they had already exceeded such (see 1.51).

1.422 STACKING: All units represented by a single Cloaking counter always move/advance as a stack—unless the owner wishes to remove the Cloaking counter and replace it with the actual concealed unit(s). A Cloaking counter may not split into two or more Cloaking counters, although two or more Cloaking counters may combine into one. The inherent parts of a Cloaking counter can break into concealed units without removing the Cloaking counter, provided an original unit remains in the Cloaking Box. There is no limit to the number of Cloaking counters that can occupy a Location; however, when two or more Cloaking counters occupy the same Location, their owner must check their respective Cloaking Boxes to see if their contents merit Overstacking penalties. Cloaking/"?" is automatically lost if overstacked in the LOS of an unbroken enemy ground unit (A12.14).

1.423 HUMAN WAVE: All elements of a Human Wave attack lose Cloaked status.

1.43 LOSS: Cloaked status is lost, and replaced by its unconcealed actual contents (if any), for any situation that would cause one or more of its units to lose concealment at night (1.31; 1.72), and for making any attack other than a successful Ambush. Once removed, Cloaking counters cannot be regained.

1.5 MOVEMENT: The rules governing daytime movement remain in effect at night except as altered below (and in 1.42).[5]

1.51 ON FOOT: Infantry/Cavalry *[EXC: Infantry represented by a Cloaking counter; 1.41]* during a night scenario must pay an additional MF (after all modifications) per each Concealment Terrain Location entered *[EXC: if crossing a road hexside or using Bypass in an Open Ground hexside of an Obstacle hex; bocage (B9.5) does not make a Location Concealment Terrain for this purpose]*. In addition, if such a unit's NVR is 0, it may not use Double Time, road bonus, or Gallop.

EX: A squad ascending a Crest Line and entering woods must expend five MF ({2 [entering woods] × 2 [moving to higher elevation] = 4} +1 [entering Concealment Terrain Location at night] = 5).

1.52 VEHICULAR: All vehicles must pay an additional MP/MF per hexside crossed (or transited via VBM), added as if towing a Gun. In addition, if an AFV's NVR is 0, it may not expend MP while BU except to Stop *[EXC: Passengers/Riders may unload as if the AFV had fired in the PFPh]*.

1.53 STRAYING:[6] At the start of its MPh, each onboard ground unit or stack wishing to move to a new hex in that MPh *[EXC: 1.531]* must first make a Movement DR (Δ). If the colored dr of the Movement DR is a 6, that unit/stack is subject to Straying; otherwise, it can move normally. A Lax unit/stack automatically Strays if the colored dr of the Movement DR is a 6, a Normal unit/stack Strays only if the white dr of the Movement DR is ≥ 3, and a Stealthy unit/stack Strays only if the white dr of the Movement DR is ≥ 5. A unit/stack that must Stray immediately makes a Straying DR (Δ), the colored dr of which indicates the Hex Grain Random Direction (B.8) that it must move along *[EXC: Doubles may result in ATTACKER Jitter Fire, cancelling that move; see 1.55]*. If insufficient MF/MP are available to Stray at least one hex in the indicated direction without Double Time, Minimum Move, or ESB, or if the next Location to be entered by the Strayer would require climbing, traversing a stairwell, fording, scaling, swimming, moving closer to a Known enemy unit, or entering an Illuminated/non-enterable Location (including movement off the map) or entering a HE/WP FFE Blast Area or if it would be subject to a Known minefield (B28.45) attack, the Strayer instead becomes TI in its present Location. Straying units may not use Double Time, leader bonus, ESB, Delay MP, etc. If the next hex to be entered by a Straying vehicle contains an obstacle that would require the vehicle to make a Bog DR, and the vehicle cannot Bypass that obstacle, that vehicle instead becomes TI in its present Location; this is the only instance in which a Straying vehicle may use a Stop MP. Otherwise, the unit continues to move in that direction until it runs out of MF/MP (thus requiring a vehicle to remain in Motion). If the first AFV to move in a radioless platoon Strays, the remainder of the platoon simply follows it using normal Platoon Movement.

1.531 EXCEPTIONS: A unit or stack that, at the start of its MPh, wishes to enter a sewer/tunnel, or move within the same hex or along a TB, or can see a Known enemy unit, or is currently on or ADJACENT to a trench/bunker/road/path/gully/stream/river bank or Illuminated Location, does not make a Movement DR until such time as it is no longer in or ADJACENT to such terrain (at which point it must immediately make a Movement DR if still moving). For LOS to Beach/OCEAN Locations see G13.2 & G13.84. Only the first unit to move as part of a Human Wave, Radioless AFV Platoon, Convoy, or Column is required to make a Movement DR unless it individually meets one of the previous exceptions—all others follow accordingly (11.6).

1.532 FRIENDLY CONTACT: Whenever a Straying Mover enters a Location that contains a Good Order friendly unit, it is no longer subject to Straying and the ATTACKER may use the remainder of its MF/MP in completing its MPh as he wishes.

1.533 BERSERK: A berserk unit is always Lax (even in daytime) but is not subject to Straying. If it can see a Known enemy unit, its charge is predetermined (A15.431); if not, it is not berserk (A15.44).

1.54 ROUTING: A broken unit does not rout normally at night, but instead, always uses Low Crawl and is never eliminated for Failure to Rout. A broken Inherent Crew still uses all of its RtPh to rout out of its vehicle into the same hex as per D5.311. A unit is captured or Surrenders at night only by CC or Mopping Up (even if Disrupted). A DM unit retains DM until its makes a Rally/Self-Rally Original DR ≤ its current printed morale. A broken unit may *always* Low Crawl during the RtPh (including out of enemy-occupied Locations, into marsh, while fording, and through tunnels) and does not have to Low Crawl towards any particular terrain type, but still may not rout toward a Known enemy unit.

1.55 JITTER FIRE: Jitter Fire cannot occur in a scenario until at least one Gunflash has been placed due to an attack vs an enemy unit. Thereafter, whenever a unit or stack makes a Straying DR (1.53) that results in Doubles, Jitter Fire can occur as follows:

Doubles DR	Result
2	Closest DEFENDER Jitter Fires
4	Closest DEFENDER Jitter Fires unless Stealthy
6	Closest DEFENDER Jitter Fires unless Stealthy or Normal
8	Moving unit(s) Jitter Fires unless Cloaked, Stealthy or Normal
10	Moving unit(s) Jitter Fires unless Cloaked or Stealthy
12	Moving unit(s) Jitter Fires

1.551 UNIT DETERMINATION: The "Closest DEFENDER" is one or more Good Order non-hidden units in the nearest (in hexes) occupied hex to the moving unit(s)—ATTACKER's choice in the case of equidistant hexes. If more than one applicable unit is able to Jitter Fire, all such applicable units are affected. Only MG and Small Arms fire are subject to Jitter Fire. Heroes, units with no FP (e.g., a leader without a functioning MG), units already marked with a Final Fire counter, and units marked with a First Fire counter and closer to a Known enemy unit than to the moving unit, are exempt from Jitter Fire. Should no unit in the closest occupied hex be able to Jitter Fire, none occurs. If a squad with a MG must Jitter Fire, both the squad's inherent FP and that of one of its MG are affected. However, a vehicle subject to Jitter Fire will fire only its MG armament and PRC. No LOS to another unit is necessary to activate Jitter Fire. Should a Dummy Cloaking counter be subject to Jitter Fire (as determined by the side's Majority Squad Type), it is eliminated. Moving Infantry, which cannot normally fire in its own MPh, can do so for Jitter Fire purposes only.

1.552 EFFECT: Jitter Fire has no effect on anyone other than the firer (i.e., placement of appropriate fire/Gunflash markers and attendant loss

© 2000 Multi-Man Publishing, LLC

of Cloaking/concealment). A Jitter Fire attack is resolved only to determine ROF, malfunction/Low Ammo, and Sniper activation. Jitter Fire conducted by a moving unit cancels any remaining portion of its move.

1.56 RECOVERY: There is a +1 drm to all Recovery attempts (A4.44) at night.

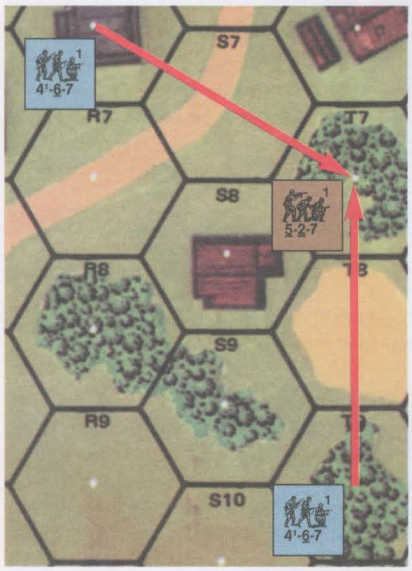
1.6 LAX/NORMAL/STEALTHY: All units are classified as Lax, Stealthy, or Normal at night. Cloaking counters are considered equal to the Majority Squad Type of their side at Scenario start—regardless of actual contents. A SSR is the ultimate source of this definition, but the following general rules apply:

1.61 STEALTHY: At night, Stealthy units are generally those designated as Commando, Ranger, ANZAC, Gurkha, Finnish, Good Order SMC, or Partisan.

1.62 LAX: At night, Lax units include all Inexperienced, berserk, non-elite Italian/Axis Minor MMC, pre-1943 German MMC, motorized vehicles (and their PRC), and non-Good Order units.

1.63 NORMAL: At night, all other Good Order MMC are Normal, as are Good Order Lax units stacked with a Good Order SMC (even for purposes of Ambush; A11.18). Horses, Cavalry, and Animal-Drawn Transport are Normal (unless their Passengers/Riders are Lax).

1.7 COMBAT:[7] All night attacks *[EXC: Fire Lanes, mines, Snipers, DC, Specific Collateral attacks, Residual FP, CC, and OBA]* are subject to a +1 Low Visibility (LV) Hindrance DRM (which does not nullify a FFMO DRM; 3.1).[8] However, the +1 Night LV DRM is never applicable in combination with any positive TEM due to HA or if the target hex contains any terrain (inclusive of hills/higher ground level) whose topmost height is at least a full level higher than the firer or if the target is claiming bocage TEM or is in the same hex as the firer. The Night LV DRM, LV Hindrances, and SMOKE DRM are all cumulative. The LV Hindrance DRM does not reduce the amount of Residual FP left in a hex.



EX: The attack of the 4-6-7 in 3R6 against the Russian 5-2-7 in T7 is subject to only a +1 DRM for the Woods TEM. An Attack by the 4-6-7 in T9 would also be subject to a +1 LOS Hindrance for firing through the grainfield (in season). The Night LV DRM does not apply to either attack because the topmost height of the T7 woods is 1 full level higher than the firers. If the 4-6-7 in R6 were on the first level of that building, the +1 LV DRM would apply to its attack because the topmost height of the T7 woods would not be a full level higher. If the Russian squad fires back at R6 the +1 LV DRM will not apply to its attack regardless of which level that 4-6-7 is on.

1.71 FIRE LANE: At night, a Fire Lane Residual FP counter can be placed beyond the firer's NVR although the firer must still have a LOS to the moving initial target. *[EXC: Once any starshell/IR has been fired, a MG can place a Fire Lane without firing at any moving target if it can place a Fire Lane Residual FP counter in a Location that is Bore Sighted by that MG; however, if it does so it must thereafter place (if otherwise able to do so) a Fire Lane to that Location in every enemy MPh (and must do so before the ATTACKER begins moving his first unit in that MPh) until the start of an enemy MPh in which it can see a Known enemy unit. The firer must make an IFT DR to check for malfunction/cowering/SAN. Once that MG's Bore Sighting advantage has been lost, it cannot thereafter use this Bore Sighted type of Fire Lane.]*

1.72 SNIPERS: An effective Sniper attack (dr 1 or 2) removes any Cloaking counter it attacks and places its contents onboard unconcealed. Random Selection is then used (if necessary) to determine which of those contents are affected by that Sniper attack.

1.73 TO HIT: When a unit enters another unit's NVR it is treated as emerging from a Blind Hex for that latter unit's To Hit purposes.

1.74 TARGET ACQUISITION: Target Acquisition DRM (C6.5) are NA at night unless the target is Illuminated. Remove all Acquired Target counters from a target/Location as soon as it loses such Illuminated status. Thus, a target Illuminated only by a Starshell/IR loses all Acquired Target Status when the Starshell/IR is removed at the end of each Player Turn. Only a target Illuminated by a Blaze/Flame at the end of a Player Turn can remain Acquired from one Player Turn to the next.

1.75 FG: Multi-Location FG are not allowed at night.

1.76 MISTAKEN FIRE: The printed (or recorded, for DYO; H1.29) SAN of each side in a night scenario is increased by two (up to a maximum of 7) in actual play, due to random mistaken fire. The actual SAN can never be reduced below the printed (or recorded) SAN in a night scenario; Sniper Checks can reduce it only to the printed number. In addition, anytime a captured MG is fired at night, its Location is subjected to an automatic sniper attack dr.[9]

1.77 CC: During a night scenario, the ATTACKER's Ambush dr need be only at least two less than the DEFENDER's to gain Ambush (A11.4) status unless Illuminated.



1.8 GUNFLASHES: Gunflashes are *not* a form of Illumination. However, any unit that fires (regardless of its B#/X# DR, or Illumination, or NVR) reveals its Location (but not necessarily itself) to any unit with a LOS to it, regardless of NVR. This allows units to fire at a Location that contains a Prep/Bounding/First/Final/Intensive/No/Opportunity Fire or Melee counter as long as that counter remains in view, even if it is beyond the firer's NVR.[10] This remains true even if any/all the units have in the meantime left the Gunflash Location and others have entered it. During night scenarios, First/Final Fire counters are left in the Locations where they were originally placed until the end of the AFPh. All types of Gunflashes not marked automatically by the proper fire counter (1.83-.86) can be marked by placement of a generic Gunflash counter.

EX: A MG using Prep Fire and maintaining its ROF is marked with a Gunflash counter.

1.81 BEYOND NVR: Fire at/observation of a Gunflash beyond the firer's NVR is treated as occurring vs a concealed target *[EXC: if the target can be treated as being within NVR, as per 1.101]*—regardless of whether or not the target is physically covered by a "?" or represented by a Cloaking counter. Therefore, firing at a concealed unit that is also marked by a Gunflash is subject to halving only once—not twice—for concealment.

1.82 CC: CC causes a Gunflash for as long as it is covered by a Melee counter.

1.83 MINES: Mines cause a Gunflash only if they cause Casualty Reduction, or break, immobilize, or eliminate a non-Dummy unit.

1.84 MOL/FT: A MOL/FT attack creates a Gunflash in the Location actually attacked by the weapon. A FT also creates a Gunflash in its own Location.

1.85 DC/ATMM: A DC/ATMM causes a Gunflash only if the DC detonates or the ATMM causes damage to a vehicle.

1.86 SEARCHING/MOPPING UP: Searching/Mopping Up causes a Gunflash in all of the affected concealed/broken DEFENDER's Locations, provided the Searcher suffers Casualty Reduction (A12.154).

© 2000 Multi-Man Publishing, LLC

1.87 SR/FFE: All hexes in the Blast Area of a HE FFE are considered marked by Gunflashes. A SR is not a Gunflash, but can be seen by Observers (only) regardless of NVR.

1.88 PIAT: A fired PIAT does not create a Gunflash.

1.89 dm/RADIO/SPOTTING/AMMO-VEHICLE: Neither dismantling/assembling a SW, Spotting (C9.3), nor use of a radio/phone or an Ammo Vehicle's B# benefit (10.2) cause a Gunflash. Do not place a Prep Fire or Final Fire counter for such actions at Night despite the fact that the unit has indeed fired.

1.9 ILLUMINATION:[11] Illumination can occur via Starshells/IR or Fires—none of which create daylight conditions. Night rules remain in effect in an Illuminated Location *[EXC: Cloaking/"?" is lost more readily (1.31); an Illuminated Location is treated as being within the NVR of all units that otherwise have a LOS to it; Illuminated units can see only Gunflashes and into Illuminated Locations; 1.101]*.

1.91 INITIAL USE: No Starshells/IR may be fired in a scenario until one of three events has occurred:

- while the friendly force has no motorized vehicle onboard an enemy motorized vehicle changes its hex or its VCA within 16 hexes of a friendly unit that is currently capable of firing a Starshell/IR (or Spotting/Observing for an IR-capable firer) and *fires* a Starshell/IR; or
- a friendly unit currently capable of firing a Starshell/IR (or Spotting/Observing for an IR-capable firer) has a LOS to an enemy unit and *fires* a Starshell/IR; or
- a Gunflash is placed due to an enemy FFE or an attack vs an enemy unit.

Once a Starshell/IR has been fired, both sides are free to fire either type (within applicable restrictions).

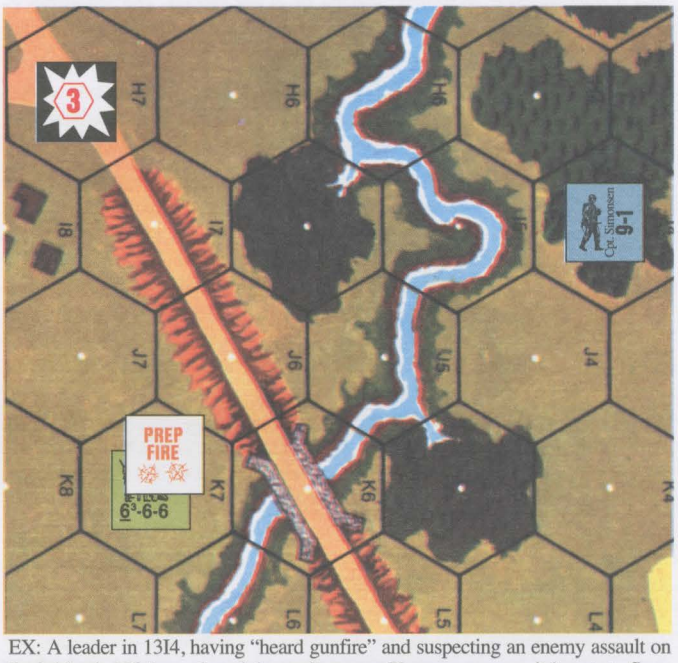


1.92 STARSHELLS: Starshells may be fired in either the PFPh or Defensive First Fire/DFPh by the player performing that phase's functions (placement during Defensive First Fire can occur without seeing a moving enemy unit). In the allowable phase, one attempt to fire a Starshell may be made per hex by one friendly leader, one friendly CE AFV, or one friendly MMC in that hex.

1.921 USAGE RESTRICTIONS: A unit must be in Good Order and neither Aerial nor in a pillbox nor pinned nor TI to fire a Starshell. Before a leader (including a CE Armor Leader) can fire a Starshell during that Player Turn, he must first make a Usage dr (Δ) of ≤ 4. Before a CE AFV with no Armor Leader, or a MMC, can fire a Starshell, it must first make a Usage dr (Δ) of ≤ 2.[12] In addition, after the Player Turn in which the first Starshell/IR of the scenario is fired, any unit *[EXC: a leader]* that fires a Starshell must do so at the start of the PFPh/enemy MPh before the ATTACKER commences firing/moving during that phase. Firing a Starshell (only) has no effect on the firer's ability to perform other actions, and does not cause a Gunflash or loss of the firer's concealment *[EXC: a hidden or Cloaked unit that fires a Starshell must be placed on board beneath a "?"]*. A Starshell cannot be fired from inside an Interior Building Hex/subterranean Location, nor can it Illuminate such.

1.922 PLACEMENT: A player has three choices after his unit passes its Starshell Usage dr, but must announce his choice before making the Starshell/IR placement dr/DR.

1. He can initially place the Starshell in its firer's hex; he then makes a Random Direction dr (B.8) and moves the Starshell one hex in that direction, which is its final placement hex.
2. If the Starshell firer has a LOS to a Gunflash, or to a Known enemy unit that is < nine hexes away from the firer, he can initially place the Starshell either in that target's hex or along the firer's LOS to it; in both cases the Starshell's maximum initial placement range is six hexes from the firer. He then makes a Random Direction DR, with the white Extent of Error dr halved (FRU), to find the Starshell's final placement hex. After this method has been declared, a free LOS check can be made; if no LOS exists, then method 3 must be used to fire the Starshell.
3. He can initially place the Starshell in any hex that is exactly three hexes away from the firer. He then makes a Random Direction DR (with no halving of the white Extent of Error dr) to find the Starshell's final placement hex.



EX: A leader in 13I4, having "heard gunfire" and suspecting an enemy assault on the bridge in K6 (even though he can't see any Known enemy units), opts to fire a Starshell toward the bridge. The DEFENDER picks K6 as the initial placement hex, and then makes a Starshell Placement DR which is a colored 5 and a white 3, resulting in the Starshell counter being finally placed in H7. Had the Elevated Road in K6 not blocked the LOS to K7, the Gunflash in K7 would have allowed the DEFENDER to halve the Extent of Error dr so as to place the Starshell in I7.

1.923 EFFECTS & DURATION: A Starshell Illuminates all non-subterranean and non-Interior building Locations *[EXC: Dense-Jungle (G2.2)/Bamboo]* within three hexes (even vs Aerial counters) even if it is placed offboard. Temporarily butt any unused board to the map edge to mark the placement of an offboard Starshell. Starshells are removed at the end of each CCPh after placement of "?".



1.93 ILLUMINATING ROUNDS (IR): IR may be fired only via Indirect Fire, and only by OBA/onboard mortars that have IR listed as an available ammo type.

1.931 USAGE: No Usage dr is necessary for OBA to fire IR. However, the firer of an onboard mortar must make a Usage dr of ≤ 4 before he can fire an IR (failure of which is not considered firing), and in order to fire it he must make a To Hit DR (only to check for malfunction/Low-Ammo/SAN). Firing one IR uses all of a mortar's/OBA's ROF for that Player Turn; therefore, neither type of firer may use another ammo type during a Player Turn in which it fires an IR (when an onboard mortar fires an IR, cover the mortar with a No Fire counter). An onboard mortar firing an IR (or malfunctioning) does cause a Gunflash (and can cause loss of concealment as per the normal rules for that weapon). When OBA is used to fire an IR, the owning player must still have Radio Contact and Battery Access, but FFE:1/2/C status is kept track of offboard (for Battery Access purposes), and each chit used solely to fire IR is reshuffled into the pile when that Fire Mission is completed. OBA fires IR in the same fashion as a SR—never as a FFE.

1.932 PLACEMENT: If the mortar/Spotter/Observer has a LOS to a Gunflash/Known enemy unit, method 2 of 1.922 may be used to place the IR. *[EXC: The maximum initial placement range (six hexes) and*

© 2000 Multi-Man Publishing, LLC

maximum range to the Known enemy unit (nine hexes) of method 2 do not apply to IR. An onboard mortar must have its initial placement hex within its normal range limits (C2.25).] Otherwise, method 3 of 1.922 is used *[EXC: instead of placing the IR three hexes away from the firer, it is placed in any hex (within the mortar's normal range) that is exactly six (or some whole multiple of six) hexes away from the mortar/Spotter/Observer]*. A mortar's To Hit DR automatically results in IR placement unless it malfunctions, in which case the IR is not placed. The initial placement hex of an IR fired by an onboard mortar does not have to be in the mortar's CA and the CA cannot change as a result of firing IR.

1.933 EFFECTS & DURATION: An IR Illuminates all non-subterranean and non-Interior Building Locations *[EXC: Dense-Jungle/Bamboo; G2.4]* within six hexes.[13] It is otherwise treated like a Starshell (1.923).



1.94 FIRES: All Blazes cast an Illuminated Zone whose range from the Blaze's hex is equal to twice the number of Blazing levels (excluding Rooftops) in that hex. A hex containing a Blaze is Illuminated at all levels (even vs Aerial counters), as is any hex within the Blaze's Illuminated Zone *[EXC: Blind Hexes; 1.941]*. Fires may not be deliberately set at night unless allowed by SSR. Any attempt to Kindle a Fire automatically causes loss of the Kindler's concealment and a Gunflash if within the LOS of any Good Order enemy ground unit—regardless of range.

EX: Vehicle, brush, orchard, wheatfield, woods, and single-story building Blazes all have a two-hex Illumination range. A two-story house casts a four-hex Illumination range if both levels contain Blazes. A building of level 2 or 3 has an Illumination zone of six- or eight-hex-range respectively if all levels are ablaze.

1.941 SHADOWS: Terrain obstacles of ≥ one level within the Illuminated Zone of a Blaze cause quasi-Blind Hexes in the sense that the obstacle blocks the Illumination of those hexes. Any such LOS obstacle in a Blaze's Illuminated Zone therefore creates a non-illuminated hex(es) behind it, just as if each Blaze counter were instead a viewing unit whose LOS to those hexes was blocked by that obstacle.

1.942 FLAME: A Flame Illuminates only its own Location.



◊


1.95 TRIP FLARES: During setup for a 1944-5 PTO night scenario involving a U.S. Scenario Defender, the U.S. player may assign a number of trip flares (up to the number available in his OB) to any jungle/bamboo/wire/panji Locations.[13A] He does this by secretly recording the grid coordinate of each such hex and the number of trip flares set up therein. Each time any, even a friendly, non-Dummy (determined as per A12.11) ground unit/stack enters, expends additional MF/MP in or Searches (1.953), a Location that currently contains any trip flare(s), the player owning the trip flare(s) immediately makes a dr (Δ) *[EXC: no dr is made if the unit/stack is entering (or entering the Location via) a trench/pillbox/subterranean passage, or is entering the Location via a path/TB created during play, or if the MF/MP expenditure is made for Stopping, Delay or placing SMOKE; for panjis see also G9.121]*. During the MPh, one dr is made for each separate qualifying MF/MP expenditure (not for each such MF/MP expended), and is made before Defensive First Fire is conducted. The only possible drm is a -4, which applies if during the current Player Turn the unit/stack entered the hex using (or is Searching "across" a hexside that contains) a road or a path that was *not* created during play. If the Final dr is ≤ the number of trip flares currently in that Location, a trip flare has been set off and a Trip Flare counter is placed therein.

1.951 EFFECTS: A Trip Flare counter Illuminates the ground-level Location of its own hex and all Accessible ground-level Locations, including all pillboxes in those hexes *[EXC: if placed in/IN a Depression, it can Illuminate IN an Accessible Depression hex only if those two hexes share a Depression hexside]*. Each Trip Flare counter placed onboard during the MPh is placed with its red-on-white side face-up, and is removed at the end of that Player Turn's CCPh after the placement of "?"; each placed during a RtPh/APh/CCPh is placed with its purple-on-white side face-up, and is removed at the end of the *next Player Turn's AFPh* (along with First/Final Fire counters; 1.8). The MF/MP expenditure that sets off a trip flare is considered to have been made in an Illuminated Location. A set-off trip flare is equivalent to a fired starshell for the purpose of allowing Fire Lanes vs Bore Sighted hexes (1.71) and the subsequent use of starshells/IR (1.9).

1.952 ELIMINATION: Once a trip flare has been set off, the number of them remaining in that hex is reduced by one (or by two if the flare was set off by a vehicle and the -4 drm applied). All trip flares in the hex are eliminated by an Original KIA DR caused by a HE FFE Concentration; an Original K DR by such an attack eliminates one trip flare in that hex. Vs Bombardment, trip flares have a morale of 7 and must take a NMC; one trip flare in the Bombarded hex is eliminated for every multiple of one by which that MC is failed. Elimination by FFE/Bombardment does not cause trip flare Illumination.

1.953 SEARCH & RECON: A Search/Recon (A12.152/1.23) vs a hex reveals the presence, but not the number, of trip flares therein. In addition, when a hex that contains a trip flare is Searched, a separate trip flare dr is made for that hex as if the Searcher were entering it (1.95), but ignoring the presence of all entrenchments, TB and paths.

2. INTERROGATION

2.1 INCIDENCE: Whenever a Personnel unit surrenders or is captured it is subject to immediate Interrogation.[14] The captor must make one DR on the Interrogation Table for each captured unit. An Interrogation DR can never be remade for the same Prisoner, even if the first DR did not yield a usable benefit.

2.2 INTERROGATION TABLE: The following cumulative DRM are applicable to the Interrogation Table DR:

Final DR	Result	DRM	Cause
≥ 6	No Effect	-1	Prisoner is squad
5	Concealed Unit(s) Revealed	-1	Prisoner is Inexperienced
4	HIP Unit(s) Revealed*	+1	Prisoner's Heroic DRM
3	Hidden Fortification(s) Revealed*	+1	Prisoner is Elite
≤ 2	Defenses Compromised	+1	Guard is Inexperienced
		+1	Prisoner is SMC

* If not applicable, select any result with a higher Final DR. If equidistant qualifying hexes exist, the choice of which hex to reveal is made by the interrogated player. Automatic Right of Inspection (A12.16) regardless of LOS is permitted of any non-concealed unit.

2.21 CONCEALED UNIT(S) REVEALED: The prisoner player must remove all his "?" from the closest (in hexes) hex that contains such (see 2.3).

2.22 HIP UNIT(S) REVEALED: The prisoner player must place on board beneath "?" all his hidden units that are in the closest (in hexes) hex that contains such (see 2.3).

2.23 HIDDEN FORTIFICATION(S) REVEALED: The prisoner player must reveal his closest (in hexes) hidden Fortification (including type and strength in the case of minefields). All Fortifications adjacent to another Fortification of the same type are a multi-hex Fortification System which must be revealed in its entirety *[EXC: 2.3]*. A tunnel's Location is based on its entrance/exit hexes—not the subterranean hexes. If multiple Fortifications exist in a hex to be revealed, all of those Fortifications/Fortification Systems in that hex are revealed.

2.24 DEFENSES COMPROMISED: The Prisoner's side is subject to one application each of 2.21, 2.22, and 2.23 (including normal replacement of NA results; 2.2).

EX: If the Prisoner suffers a "Defenses Compromised" result and the only applicable case is Concealment Loss, the Prisoner's side is subject to Concealment Loss in the three closest hexes containing his concealed units.

2.3 LOS/RANGE RESTRICTION: No unit/Fortification is revealed if it is *both* out of LOS of the Prisoner and more than eight hexes away. For purposes of this rule only, the Prisoner can trace its LOS from any Location in its current hex that it could conceivably reach in its next MPh (the Prisoner

© 2000 Multi-Man Publishing, LLC

need not be in that Location—it just needs to be able to reach it). This restriction does not apply to information gained from civilians (2.42).

2.4 CIVILIANS: The remnants of the local populace of any battlefield were frequent sources of information about enemy troop movements. This possibility exists only by SSR in every RPh as an inherent part of the Wind Change DR (B25.65). The ATTACKER is the recipient of the information. A Wind Change DR of 3 results in information for the ATTACKER who is in a hostile or neutral country, and a Wind Change DR of 4 results in information for the ATTACKER who is in a friendly country. If players cannot agree on which side is "hostile" or "friendly", both sides are considered in a neutral country. Information cannot be refused.

EX: In all scenarios occurring in France/Italy, the Allies would be considered in a friendly country and the Germans would be considered in a hostile country.

2.41 LOCATION: The ATTACKER must then determine where on the board he has received his information. He does this by making a Random Location DR measured from his Sniper counter, and the information is revealed to all Good Order friendly ground unit(s) in the indicated hex. If that hex is unoccupied by a qualifying unit, the information is revealed to all Good Order friendly ground unit(s) in the closest (in hexes) hex to that hex (ATTACKER's choice in case of equidistant hexes). If the ATTACKER has no Good Order units on board, no information is received.

2.42 INFORMATION: The ATTACKER then makes a dr on the Information Table. The dr is modified by +1 if in a hostile country, or by -1 if in a friendly country.

INFORMATION TABLE

dr	Result
0	Defenses Compromised (2.24)
1-2	Hidden Fortification(s) Revealed* (2.23)
3-4	HIP Unit(s) Revealed* (2.22)
5-6	Concealed Unit(s) Revealed (2.21)
7	False Information; units being informed are TI

* If not applicable, select any result with a higher Final dr up to a maximum of 6. Right of Inspection (A12.16) applies regardless of LOS.

2.43 CLARIFICATIONS: The rules for Prisoner Interrogation (2.21-.24) apply equally to the Information Table by replacing: "the prisoner player" with "the DEFENDER".

3. WEATHER

E3. DYO TEMPERATE WEATHER CHART

DR	Mar, Apr, May	Jun, Jul, Aug	Sep, Oct, Nov	Dec, Jan, Feb
2	Mud	Overcast	Fog/Mist	Gusty
3	Mud	Clear & Gusty	Clear & Gusty	Overcast
4	Clear & Gusty	Fog/Mist	Mud	Mud & Overcast
5	Overcast	Overcast	Overcast	Clear & Gusty
6	Clear	Clear	Clear	Snow
7	Clear & Gusty	Clear	Clear	Clear
8	Clear	Clear	Clear	Clear & Gusty
9	Fog/Mist	Clear	Clear & Gusty	Snow
10	Mud	Clear & Gusty	Mud	Snow
11	Mud & Overcast	Mud	Mud & Overcast	Snow
12	Snow*	Mud & Overcast	Snow*	Snow

* March and November only; otherwise treat as Overcast

The Weather Chart is consulted only once prior to both setup of, and purchase for, any DYO scenario where research into weather conditions is insufficient to describe the actual weather. Otherwise, *weather conditions are always considered Clear in the absence of any weather SSR*. The Temperate Weather Chart is only for use in moderate climates such as those prevailing in Europe. Special Weather Charts and applicable rules are provided in Chapters F (*WEST OF ALAMEIN*) and G (*GUNG HO!*) for use in North Africa and the Pacific Theater respectively. Weather dictated by the Weather Chart always takes precedence over the determination of EC (B25.5); e.g., an EC result of "Snow" or "Mud" does not activate those respective weather rules if the Temperate Weather Chart result/SSR listing (or non-listing) is Clear—only their EC DRM/drm applies.

3.1 LOW VISIBILITY (LV): LV is the term used to describe weather conditions and related camouflage (3.712) when Night/Fog/Mist/Rain/Falling Snow occur in a scenario. A LV Hindrance *[EXC: Fog]* is treated exactly like a LOS Hindrance except that a LV Hindrance DRM is cumulative with other Hindrances regardless of range and does not by itself negate the FFMO DRM or Interdiction, or affect the placement of (or attack by) Residual FP (A8.26), or prevent concealment loss *[EXC: Winter Camouflage]*.

3.2 CLEAR: Weather has no effect. EC are determined normally (B25.5).

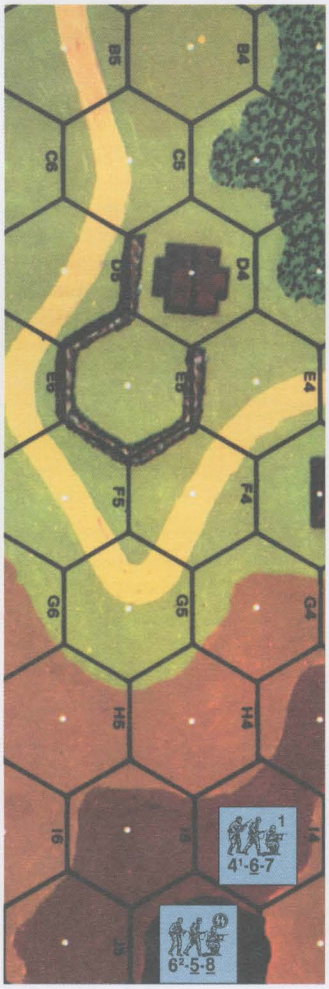
3.3 FOG/MIST: Make a dr to determine whether Fog or Mist is in effect. On a dr of 1-5, the result is Mist (3.32); on a dr of 6, the result is Fog. EC are automatically "Moist" during a scenario that contains Fog or Mist.

3.31 FOG: Fog does not necessarily affect all hexes/Locations of the mapboard; it can occur at certain elevations while not affecting others that are higher. After setup, make a dr on the Fog Level Chart to determine the elevation(s) at which Fog exists, and place SMOKE counters accordingly on the Fog Display Chart of the Chapter K Scenario Aid Card to show the level(s) containing Fog.

FOG LEVEL CHART

dr	Levels Affected
1	Level -1 and lower
2	Level 0 and lower
3	Level 1 and lower
4	Level 2 and lower
5	Level 3 and lower
6	Level 4 and lower

EX: The Fog Level dr is a 3, resulting in Fog at Level 1 and lower. Therefore, a non-Hindered LOS to another hex can exist only between units at Level 2 or higher, or those within a Factory (3.8).



EX: Fog is present at level 0 and lower with a Density DRM of +1 per hex. All LOS between the various hill hexes is unHindered by Fog LV DRM. However, the 4-6-7 on level 2 hill hex 2I4 firing down to level 0 at F4 would be subject to a +2 Fog LV DRM (+1 each for F4 and G4). Although G4 is a level 1 hill hex, Fog exists in the level 0 portion of the hex. If the 4-6-7 traces its LOS to E4, the Fog LV DRM remains +2 (+1 each for E4 and F3-F4) even though it was traced through three Fog hexes; the Fog in G4 has no effect on the LOS because as a level 1 Hindrance it would Hinder only a LOS drawn to the hex immediately behind it. However, if the 4-6-7 were to fire at B5, it would be subject to a +3 Fog LV DRM (+1 each for B5, C5, and D5). D5 Hinders the LOS because it is five hexes away and therefore creates an additional "Blind Hex" (A6.41). However, if the 6-5-8 in J4 were to fire on B5, the Fog LV DRM would be only + 2 (+1 each for B5 and C5) because as a level 3 firer, the 6-5-8 has a two-level advantage over the height of the Fog Hindrance "obstacle" in E5, D5, and C5—thus reducing the "Blind Hexes" they can each Hinder by one (to a minimum of one) as per A6.42. A unit in B5 firing at the 4-6-7 would be subject to the same +3 Fog LV DRM (+1 each for B5, C5, and D5) plus an additional +1 Fog LV DRM for firing out of a Fog Location (A24.8).

© 2000 Multi-Man Publishing, LLC

3.311 EFFECT: The density of Fog is determined by a Fog Density dr after scenario setup. Each "fogged-in" level is assumed to be affected by Smoke of the proper DRM up to the start of the next full level. All Smoke rules otherwise apply normally. *[EXC: Fog is eliminated only via Wind Effects (3.312) and is not subject to Drift. The Fog DRM is halved (FRU) for fire within the same Location.]*

dr	Fog DRM
1	+1
2-3	+2
4-6	+3

3.312 WIND EFFECTS: Fog density will decrease one level during the RPh of each *Game* Turn in which a Mild Breeze is in effect after the Wind Change DR is made. Fog density will decrease one level during the RPh of each *Player* Turn in which Heavy Winds or Gusts are in effect after the Wind Change DR is made.

3.313 AIR SUPPORT: Air Support cannot be used vs any Location in Fog.

3.32 MIST: Whenever Mist is present, a LV Hindrance DRM applies at a range of ≥ seven hexes to all fire *[EXC: Specific Collateral Attack; Fire Lane; OBA; Residual FP]* and LOS. This Mist DRM is +1 for each multiple of six hexes (or fraction thereof) beyond the initial six-hex range. Mist DRM can apply to Aerial attacks (as per E.5).

EX: Mist creates a +1 LV Hindrance DRM if the range to the target is 7-12 hexes (or at an Aerial Range of 4-6 hexes), +2 if 13-18 hexes, etc.

3.4 GUSTY: EC are resolved normally, but Gusts (B25.651) occur on a Wind Change DR ≥ 10.

3.5 OVERCAST: Overcast indicates the presence of storm clouds. Cloud Cover (1.11) is automatically Overcast. EC are determined normally until it rains (3.51).

3.51 RAIN: Players automatically check for rain at the start of each RPh as an inherent part of the Wind Change DR. Rain starts on a Wind Change DR ≥ 10 and stays in effect until a Wind Change DR ≤ 3 *ends* the rainfall (*regardless of intensity*). Rain can start again on a subsequent Wind Change DR ≥ 10 because the Overcast condition continues throughout the scenario. If a Wind Change DR ≥ 10 occurs while it is already raining, the intensity of the precipitation increases such that the Mist LV Hindrance DRM (3.32) is +1 at ≤ six hexes, and is increased by +1 at all ranges > six hexes, but can never increase further regardless of subsequent Wind Change DR. When rain starts, EC become "Wet" for the duration of the scenario.

3.52 LV: Rain automatically causes Mist (3.32).

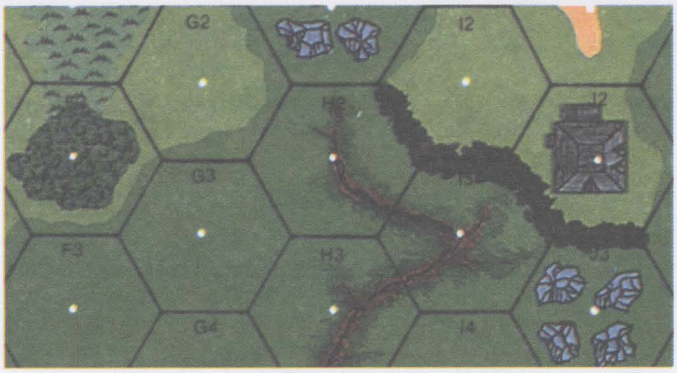
3.53 SMOKE: The only SMOKE that can exist during rain is that emanating from a Blaze, or from SMOKE entirely placed inside a building (A24.6). Such SMOKE still fills the entire hex, but is not subject to Drift.

3.54 MOVEMENT: During and after rain, all ground units must expend one extra MF (or MP) per elevation level change (up/down) unless using a stairwell or paved road. (See example at the top of the next column.)

3.55 AIR SUPPORT: Air Support is not possible during Overcast.

3.6 MUD: EC are always "Mud". Fires will spread to adjacent hexes only if the connecting hexside crosses a building/woods/brush/grain/orchard (in season) symbol or the fire is spread by Gusts (B25.651). All unpaved roads (including those in hexes containing other terrain such as woods/orchard) are non-existent *[EXC: for LOS (A4.132), Dash (A4.63), Street Fighting (A11.8), and Movement/Straying DR purposes (1.53-.531)]* and considered Open Ground (see 3.65). Paved roads (which include bridges) and runways are not affected by Mud.

3.61 BOG/MANHANDLING: The chances of vehicular Bog (D8.23) and difficulties with Manhandling Guns (C10.3) are increased during Mud.



3.54 EX: Infantry moving from 24G3 to G2 must pay three MF. If descending from G2 to G3 they must pay two MF. If moving from IN H2 INTO H3 they must pay five MF (2 [Abrupt Elevation Change intermediate level; B10.51] +2 [entering Open Ground gully] +1 [rain] = 5). A halftrack towing a Gun and moving from G3 to G2 pays seven MP (4 [higher elevation] +1 [Open Ground] +1 [rain] +1 [towing] = 7). If moving from IN H2 INTO H3 it must expend ten MP (4 [Abrupt Elevation Change intermediate level] +4 [entering Open Ground gully] +1 [rain] +1 [towing] = 10).

3.62 HE ATTACKS: Due to the cushioning effects of Mud, there is a +1 TEM (cumulative with all other applicable TEM/Hindrance DRM) to all HE (not HE Equivalency; C8.31) attacks that are resolved in Open Ground (see 3.65) *[EXC: Mines, Air Bursts, Specific Collateral Attacks, Direct Fire ordnance vs a vehicle (and its PRC)/pillbox (and its occupants)]*. The Residual FP of such an attack is reduced by one IFT column (A8.26). FFMO still applies normally.

3.63 ENTRENCHING: In Mud, there is a +1 DRM to all Entrenching attempts.

3.64 MOVEMENT: In Mud, all ground units must expend an extra ½ MF (or one full MP) per Open Ground (see 3.65) hexside *[EXC: if entering non-Open Ground terrain in that hex]*, as per 3.9. Double Time and Leader MF bonus are still applicable.

3.65 OPEN GROUND: For purposes of Mud and Deep Snow (3.62, 3.64, 3.731) only, Open Ground includes all unpaved (during mud) or unplowed (during Deep Snow) roads, gullies *[EXC: gullies containing woods/brush during Mud, or containing woods during Deep Snow; B12.6]*, dry streams, plowed fields (not grain), and otherwise Open Ground hexes including shellholes and trenches regardless of LOS Hindrances, hexside TEM, entrenchments, or height.

3.7 SNOW: Snow can exist in several forms and combinations. A Snow result on the Weather Chart requires a dr on the Snow Chart to determine the type of snow rules in effect.

SNOW CHART

Final dr	Condition	drm:
≤ 1	Falling Snow	Dec-Feb: +1
2	Ground Snow	Mar, Nov: -1
3	Ground & Falling Snow	
4	Deep Snow	
5	Deep Snow & Falling Snow	
6	Deep Snow & Drifts	
7	Extreme Winter (make another dr; see 3.74)	

3.71 FALLING SNOW: Falling Snow is always accompanied by Overcast conditions, even if the snowfall ends. Falling Snow re-occurs on a Wind Change DR ≥ 10 and stays in effect until *stopped* by a Wind Change DR ≤ 3 (*regardless of intensity*). Once stopped, snowfall can start again on a Wind Change DR ≥ 10. If a Wind Change DR ≥ 10 occurs while it is already snowing, the intensity of the precipitation increases such that the Mist LV Hindrance DRM (3.32) is +1 at ≤ six hexes, and is increased by +1 at all ranges > six hexes but can never increase further regardless of subsequent Wind Change DR.

3.711 LV: Falling Snow automatically causes Mist (3.32).

3.712 WINTER CAMOUFLAGE: In any type of snow, any Infantry unit/vehicle (not PRC) specified as having Winter Camouflage receives a

© 2000 Multi-Man Publishing, LLC

+1 LV Hindrance DRM when fired upon beyond eight hexes if Infantry, or beyond 16 hexes otherwise *[EXC: OBA, Residual FP, Fire Lane]* unless it already qualifies for a positive TEM other than SMOKE. Such a unit also receives a -1 drm to its Concealment dr (A12.122). Winter Camouflaged Infantry may Assault Move/advance into Open Ground regardless of range from enemy units without loss of "?".

3.713 EC: When Falling Snow is possible, EC are "Moist" (unless Ground/Deep Snow are also present) and all streams are considered frigid.

3.72 GROUND SNOW: During Ground Snow, EC are always "Wet" unless Deep Snow/Extreme Winter also apply. The Winter Camouflage provisions (3.712) of Falling Snow also apply to Ground Snow.

3.721 FIRES: During Ground/Deep Snow, Blazes will spread to adjacent hexes only if the connecting hexside crosses a building/woods/brush symbol *[EXC: brush NA in Deep Snow]* or the Blaze is spread by Gusts (B25.651).

3.722 TERRAIN: Ground/Deep Snow turns all marsh/mudflat terrain to Open Ground (B16.8), freezes all streams, and activates all Ice rules (B20.7, B21.6). It also causes a +2 DRM to all Entrenching attempts.

3.723 INFANTRY/CAVALRY MOVEMENT: During Ground Snow, all Infantry/Cavalry must expend one extra MF per elevation level change (up/down) unless using a stairwell or plowed road. Road Bonus (B3.4) is NA unless using a plowed road.

3.724 VEHICULAR MOVEMENT: The minimum Road Entry MP cost in Ground Snow is one MP—not $^1/_2$. All non-tracked vehicles *[EXC: sledges]* must expend one extra MP (or MF) per hexside crossed/bypassed. Both effects apply even on plowed roads.

3.73 DEEP SNOW: EC are always "Snow". Winter Camouflage (3.712), Fires (3.721), and Terrain (3.722) rules are in effect. In addition, Deep Snow transforms brush into Open Ground (B12.6).

3.731 HE ATTACKS: All HE (not HE Equivalency; C8.31) attacks in Open Ground (see 3.65) must add a +1 TEM (cumulative with all other applicable TEM/Hindrance DRM) due to the cushioning effects of Deep Snow *[EXC: Mines, Air Bursts, Specific Collateral Attacks, Direct Fire ordnance vs a vehicle (and its PRC)/pillbox (and its occupants)]*. The Residual FP of such an attack is reduced by one IFT column (A8.26). FFMO still applies normally.

3.732 MINEFIELDS: All minefield attack/Clearance DR are subject to a +1 DRM due to Deep Snow. All A-P minefield attacks are resolved with half FP. The A-T Mine factors present in a hex are considered to be one less than normal.

3.733 INFANTRY/CAVALRY MOVEMENT: In Ground/Deep Snow, Infantry/Cavalry movement penalties (3.723) still apply and, in addition, such units must pay an extra $^1/_2$ MF per hexside *[EXC: if entering any woods/building/rubble, or crossing a plowed road hexside]*. The road bonus (B3.4) is applicable only along plowed road hexsides (roads are plowed only by SSR). Gallop is allowed only if used entirely across plowed road hexsides.

3.7331 VEHICULAR MOVEMENT: In Deep Snow the minimum Road Entry MP cost is one MP—not $^1/_2$—whether BU or not (even on plowed roads). Except along plowed roads, all tracked vehicles must pay one extra MP, and all non-tracked vehicles *[EXC: sledges]* must pay two extra MP (or MF), per hexside. Gallop is allowed only if entirely across plowed road hexsides.

3.7332 BOG/MANHANDLING: The chances of vehicular Bog (D8.23) and difficulties with Manhandling Guns (C10.3) are increased during Deep Snow.

3.734 SMOKE: The only SMOKE that can exist during Mud and/or Deep Snow is that from SMOKE entirely placed inside a building (3.8) or emanating from a Blaze. Such SMOKE still fills the entire hex.

3.74 EXTREME WINTER: A Final dr of 7 on the Snow Chart results in the use of Extreme Winter rules. Make another dr to determine the Snow conditions (3.7) that are in effect in addition to Extreme Winter rules. EC are always "Snow" during Extreme Winter.

3.741 B#/X#: The B#/X# of all ordnance/SW except DC decrease by the following amounts (A.11 applies) during Extreme Winter:

Pre-April, 1941 Russians: 1

Pre-April, 1942 Axis *[EXC: Finns]*: 2

Scenario designers should always reduce by one the ELR of units affected by 3.741.

3.742 FATE: In addition to the normal Fate rules (A10.64), any non-Finnish Axis Personnel unit prior to April 1942, or Russian prior to April 1941, that makes an Original Rally DR ≥ 11 while not in a building/pillbox during Extreme Winter suffers Casualty Reduction.

3.743 ENTRENCHING: Foxholes may not be dug (B27.11) during Extreme Winter.

3.744 AXIS VEHICLES: In an Extreme Winter scenario set prior to April 1942, a non-Finnish Axis Scenario Defender must, for each motorized vehicle that he sets up onboard and not in Motion, make a dr before that vehicle expends its first Start MP of the scenario; on a 6 it is Immobilized.



3.75 DRIFTS: Drifts occur at the start of a scenario by SSR or by DYO use of the Snow Chart. If Drifts are specified, each mapboard in play receives six Drift counters. A Drift is also created in one hex of each mapboard at the start of any RPh in which, prior to the Wind Change DR, Heavy Winds/Gusts were in force in combination with Ground or Deep Snow. Drift placement is resolved by randomly drawing a Drift counter from the complete pool of remaining unused counters and initially putting it in the hex containing coordinate number 5 of the hexrow listed on that counter, and making a Random Location DR to determine the hex where the Drift counter will be permanently placed *[EXC: if placed in an Interior Building or another Drift hex, roll again]*. If placed on an adjoining board it remains there; if placed offboard that particular Drift is lost.

3.751 A Drift affects only one hexside of its hex and is always placed so as to face the Direction the Wind is blowing to at the time of placement. If there is currently no wind, make a Random Direction dr to determine the wind's last direction. Once placed, a Drift remains in play as is, regardless of Wind Changes or other events *[EXC: a Drift can be removed through the normal Roadblock Clearance rules; B24.76]*.

3.752 A Drift hexside requires ALL of a unit's MF/MP to cross, and also requires a vehicle to take a Bog Check with the Deep Snow DRM (+2; +1 each for Snow and Deep Snow; D8.21). If bogged, the vehicle is considered in the hex with the Drift counter. In addition, the Drift hexside is treated as a hedge unless a wall/roadblock hexside also happens to coexist there. Bypass is not allowed along a Drift hexside, but normal movement between building hexes of the same building can occur across a building-Drift hexside.

3.8 BUILDINGS: Weather is always "Clear" for units in a building viewing/firing to/entering another Location of that same building through a building hexside and for units in the same hex *[EXC: Bypass/Rooftop]*.

3.9 MF/MP COST ADDITIONS: Any extra MF or MP costs due to weather are added per hexside crossed (or Bypassed), after calculating total cost *[EXC: Towing; C10.1]*.

4. SKI TROOPS

4.1 DYO: Ski capability (and Winter Camouflage; 4.4) can be purchased for a DYO OB (H1.202).



4.2 SKI MODE: The special rules for ski troops apply only to those scenarios in which Ground or Deep Snow is present. Ski-capable units (those beginning a scenario with ski counters or that pass a ski-use dr; 4.21) may be on foot, on skis, or transported by any other normal means when not in ski mode. Units on skis are in ski mode and are referred to as Skiers. Skiers are identified by being placed on ski counters. Ski troops may switch between ski and

© 2000 Multi-Man Publishing, LLC

foot/Passenger (or Rider) mode only during their own MPh/RtPh/APh. There is no cost for switching from ski to foot mode, but it costs two MF to switch from foot to ski mode. Normal CX restrictions and penalties (A4.72) apply to units switching to ski mode and advancing (or vice versa) in the same APh. Vehicle crews never start a scenario with skis.

4.21 SKIS: When not in ski mode, skis are carried atop a unit at a cost of one PP. A unit cannot carry skis in excess of its own usage requirements. Skis can be eliminated like any SW (A9.73-.74). If skis are Recovered/Transferred they can be used by their new owner, only if it began the scenario with ski capability or makes a ski-use dr of 1 immediately upon Recovery/Transfer. A ski-use dr of 2-6 eliminates the skis automatically.

4.3 MOVEMENT: Skiing is considered a form of Infantry movement and is therefore subject to all the pertinent rules of such, except as amended herein. A Skier pays no extra MF due to snow/Drift, and pays normal Infantry MF entrance costs. However, a Skier may never *enter* rubble, nor a building, pillbox, vehicle, entrenchment (nor does it *ever* receive shellhole TEM benefits), nor can a Skier cross a cliff hexside or move beneath a Wire counter. The Skier must first change to foot mode to enter these areas, although a building hex that contains no rubble (see B24.2) can be entered via Bypass, and once beneath a Wire counter a unit can return to ski mode. If forced to remain in a building hex following Bypass entry of that hex, loss of Skier status occurs automatically. Once in such a restricted area, the unit may not change to ski mode until it has left that area (a unit in a building can spend one MF for Bypass to an Open Ground vertex of its *hex* where it can then expend two more MF to switch to ski mode and thus leave its hex as a Skier). The extra MF bonus for exclusive use of road movement does not apply to a Skier.

4.31 DOWNHILL: A Skier receives a bonus of two MF for each Crest Line crossed while moving to a lower elevation during the MPh/RtPh. This bonus can be used to exceed the special MF allotment of broken (A10.5)/wounded (A17.2)/berserk (A15.431) units.

4.32 APh: A Skier can advance one hex during the APh, subject to the normal possibility of Difficult Terrain restrictions (A4.72). Such an advance can possibly include changing to/from ski mode in an allowable Location at either the start or end of that APh, although the MF expenditure for doing so is included in the A4.72 MF calculation.

4.33 ROUTING: Broken units may change ski mode/use skis during the RtPh by paying the applicable MF cost. Skiers may Low Crawl only if they first remove their skis.

4.4 CAMOUFLAGE: A unit that is ski-equipped at scenario start is also assumed to be wearing Winter Camouflage (3.712).

4.5 CC: Skiers engaged in CC must add +2 to their CC Attack DR and are subject to a -2 DRM when attacked in CC. However, Skiers in Melee have the option in their MPh to leave it or change to foot mode (A11.71).

4.6 ATTACK RESTRICTIONS: A Skier may not fire any Gun, ordnance SW, or MMG/HMG; he must change to foot mode first.

4.7 BERSERK: A berserk unit may not change from foot to ski mode, or vice versa. *[EXC: A berserk Skier charging a Known enemy unit in a Location that the Skier cannot normally enter (4.3) must change to foot mode when it reaches the point where, due solely to being on skis, it can move no closer to the unit as per A15.431.]*

5. BOATS

5.1 COUNTERS: There are three types of boats provided in the game.[15] Each type is rated for water speed (MP; 5.3), size (stars; D1.7), capacity (PP; D6.1) and ability to be Manhandled (M#; C10.3).



5.11 ASSAULT BOATS: The German Assault Boat has an Inherent Driver; its four MP may be used regardless of the number/status of its Passengers. However, this counter can also be used to represent Assault Boats that have no motor or Inherent Driver and therefore must be paddled (with only two MP) by Personnel worth at least five PP (D6.1).

5.12 PNEUMATIC BOATS: Pneumatic boats (i.e., Large and Small Rafts) must be occupied by Personnel worth at least $^1/_3$ of their listed portage capacity to use that boat counter's MP *[EXC: for Pneumatic boats only, each SMC equals 1 PP].*



5.121 SMALL RAFT: Each Small Raft counter with three boat depictions represents enough boats to transport ≤ 14 PP as per D6.1, or if flipped over to its reverse side (with two boat depictions) represents enough boats to carry ≤ 7PP. One Small Raft counter (a single boat depiction) can transport ≤ 3PP. Once in the water, a three-boat counter may transform into a two-boat counter only to accommodate Casualty Reduction combat losses (5.5, 5.53). This is done by flipping that counter to its two-boat side and eliminating a HS (or possibly crew, randomly selected if appropriate) from among its Passengers. Any surviving HS does not have to take a MC/LLMC. In addition, each SW/SMC in the boat counter must make a dr to determine whether it is eliminated (dr 4-6) or saved (dr 1-3). Those SW/SMC which are spared remain in the two-boat counter without further penalty even if they exceed the counter's reduced portage capability. A two-boat counter cannot be Reduced to a one-boat counter due to combat losses; it is eliminated instead. The three-boat Small Raft is the only boat that automatically suffers loss of a MMC Passenger when subject to Casualty Reduction; all other boats use Random Selection to determine the Passengers affected. However, either a one- or two-boat counter can be separated from a larger counter while on land/Beached, and can be Manhandled/launched by leaving behind a substitute counter with the proper number of boat depictions. Whenever possessed by the same Good Order unit, boat counters can be recombined into a larger boat counter, making "change" as necessary.

EX: A one- and a two-boat counter can be recombined into a three-boat counter, or two two-boat counters can be recombined into a three-boat and a one-boat counter.



5.122 LARGE RAFT: A Large Raft may carry one piece of ordnance with a M# ≥ 10 at a Passenger cost of 10 PP. However, the Gun can be loaded onto the boat only if the boat is Beached (5.23) along a hexside of the Gun's Location. Loading the Gun then requires passing a M# DR (C10.3), at a cost of one MF (not doubled). Unloading the Gun also requires passing a M# DR at a cost of one MF (not doubled) in addition to the normal MF entry cost of the land hex.

5.123 PASSENGERS & SW: Passengers and any Gun/SW on a boat can be removed from view by placing them in the Cloaking Box corresponding to their boat's ID. Such pieces remain out of view until landed (although they are not considered concealed for TH/IFT Effects purposes), and are subject to loss/wounds normally. Any necessary Casualty Reduction is resolved in the Cloaking Box. Up to four SMC can be carried on any boat at no cost to its PP capacity. All SW carried on a boat must be dm if possible.

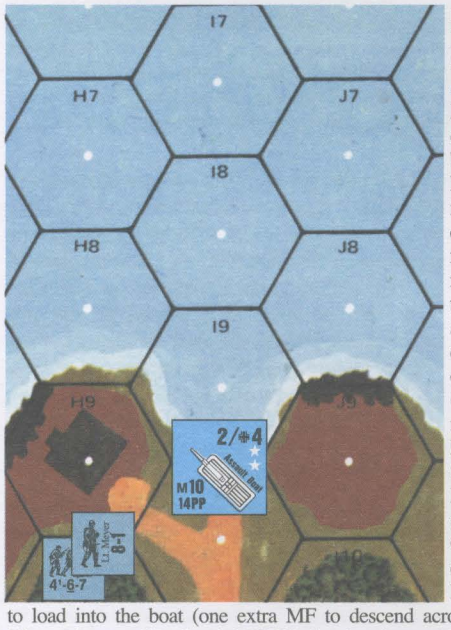
5.2 OVERLAND MOVEMENT: All empty boats can be carried overland by Infantry using the Manhandling system (C10.3) during *its* MPh (only). Unlike Gun Manhandling, these Infantry are not TI and may still carry up to their normal IPC. The Manhandling Infantry must amount to at least $^1/_3$ of the boat's PP capacity to attempt Manhandling, and only men in excess of that minimum qualify for the Manhandling DRM for additional men. A Large Raft may not be Manhandled into/out of a building *[EXC: Factory Stairwell Location; B23.742]* or around it via Infantry Bypass. Up to four assault boats may be towed overland as if they were a single Gun with a Manhandling number of 10.

© 2000 Multi-Man Publishing, LLC

5.21 MPh/LOADING: Once Beached or in the water, a boat is considered a vehicle—which limits its Passengers to four MF during any MPh in which they mount, ride, or dismount (A4.11). An Infantry unit loads onto a boat that is Beached in its Location at a cost of one MF plus any MF required for crossing that hexside (including any wall, hedge, Abrupt Elevation Change, Weather effects, etc); however, there is no cost to "enter" the Water Obstacle itself. Each remaining MF can then be used to power 1/4 of the boat's water MP allotment (FRD).

5.22 APh: A boat may not be Manhandled during the APh. However, if already Beached (5.23), it may be loaded onto *[EXC: Guns]* and placed in that water hex.

5.23 BEACHING: Beaching can occur freely during the boat's MPh/APh if it is declared as it enters any land/water hex containing any non-cliff shore hexside/pontoon (B6.41-.45) bridge, and is symbolized by placing the boat counter so that it straddles the water-land hexside on which it is Beached. If Beaching is not declared upon entry of such a hex, it requires further expenditure of another MF if on land, or another MP if in the water. Otherwise, there is no cost to Beach a boat. A Passenger must Beach a boat before it exits the boat. Personnel can load onto (or unload from) a boat only if it is Beached, and can do so only across the hexside on which it is Beached during their MPh/APh. A Beached boat can be freely un-Beached anytime during the MPh/APh at the option of the possessing Infantry/Passenger unit by moving it from its straddling position on the bank to the middle of that same Water Obstacle hex. Drift does not affect a boat during the Player Turn it is un-Beached (B21.121). A Beached boat and its Passengers are at the elevation level of the water, but are not in the water. Nevertheless, if attacked, a Beached boat must be attacked in the water hex by tracing a LOS to that Water Obstacle's hex center dot *[EXC: OVR]*. An abandoned drifting boat becomes Beached only if it makes a dr of 1 on an obligatory dr when it drifts into a possible Beaching hex. If there is more than one hexside through which a drifting boat can be Beached, the Beaching hexside is decided by making a Random Direction dr and using the applicable hexside closest to that Random Direction.



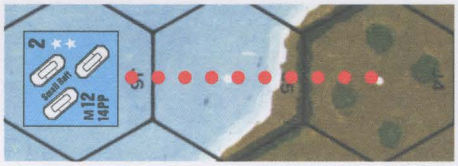
EX: A German Assault Boat is Beached on the 8I9-I10 hexside. The 4-6-7 and 8-1 in H10 use one MF to enter I10 and another MF to load into the boat. The Infantry un-Beaches the boat and uses its remaining two MF to expend half of the boat's four MP, so the boat moves into I8 and I7. If the boat counter had been a squad-sized Small Raft counter, it would have had only one MP remaining (half of its two MP allotment) after being un-Beached. Now assume a Small Raft counter is Beached on the I9-H9 hexside and the Infantry are in G10. The Infantry must expend one MF to enter H9 (Bypass) and two MF to load into the boat (one extra MF to descend across each Abrupt Elevation Change intermediate level; B10.51), leaving them with only one MF. The Small Raft counter will be unable to move (aside from being un-Beached) during this MPh because 1/4 of 2 = 1/2 (FRD) = 0 MP.

Now assume a squad with a three-boat Small Raft counter is in 8H10. The squad must expend two MF to attempt to Manhandle it into I10. It will be successful on a Manhandling DR ≤ 11 (12 [M# of boat] -2 [doubled MF cost of hex entered] +1 [additional pushing HS] = 11), and may Beach the boat as part of that two-MF expenditure. Provided its Final dr was not 11 (which would force it to stop), the squad could then spend a third MF to mount the boat and un-Beach it into I9. The squad's fourth MF would not be sufficient to propel the boat further.

5.3 WATER MOVEMENT: Once in the water, sufficiently-manned boats (5.11-.12) may move during the MPh a number of Water Obstacle hexes up to their MP allotment. A boat containing insufficient units to propel it (5.12) can move only by drifting or Beaching/un-Beaching *[EXC: a German Assault Boat can always move in the MPh due to its Inherent Driver; 5.11]*. Movement in the APh is limited to drifting in a Moderate or Heavy current (B21.121) or Beaching/un-Beaching. Boats may not move through (i.e., beneath) any type of pontoon bridge. Boats do not pay Start/Stop MP and are always considered in Motion (unless Beached). Reverse movement is not allowed. Boats do not pay for VCA changes. Enemy units in a Water Obstacle Location present no obstacle to movement and their Location can be entered/passed through as if they did not exist (A8.312 does not apply).

5.31 STACKING: Boats pay no extra MP for entering a Water Obstacle that already contains another boat counter. However, multiple boat/amphibian counters in the same Location suffer inherent defensive disadvantages (5.5-.52).

5.32 UNLOADING: Passengers may exit a boat during any MPh/APh across a Beached hexside that the Passenger has enough MF remaining to enter. There is no additional MF cost to unload. If the hex to be entered contains an enemy unit, the boat cannot be unloaded until the APh (see 5.531).



EX: The Small Raft counter in 8J6 uses one MP (and consequently two of its Passengers' four MF) to enter J5 and Beaches on the J4-J5 hexside. Its Passengers may not unload because they lack the necessary three MF to both move to a higher elevation and cross the hedge. However, they may do so in the upcoming APh.

5.33 TOWING/PUSHING NA: Boats may not be towed by other boats/amphibious vehicles nor may they be moved by fording/swimming Infantry.

5.34 UNTRAINED: If a SSR specifies that the Passengers of any *paddled* boat are Untrained in river assaults, each attempt to paddle that boat during the MPh must be preceded by a dr (Δ). A 6 dr prevents that boat from being moved in the water during that MPh; however, it does not prevent it from being Beached, un-Beached, loaded, or unloaded, nor does it prevent it from being in Motion. A 5 dr halves the boat's usable MP during that MPh.

5.4 FIRE FROM BOAT: Only Small Arms/LMG Fire is allowed from a boat—and such fire is halved as Mounted Fire if Beached, or quartered as Mounted Fire and Bounding or Motion Fire due to the boat's Motion status if un-Beached. Firing in the AFPh is also subject to an additional halving of FP. An un-Beached boat's Passengers may not Prep/Opportunity Fire. Boat Passengers may not Fire Group with any unit not in their own boat counter, even if in the same hex.

5.5 NON-ORDNANCE & AREA TARGET TYPE ATTACKS vs BOATS IN WATER: All non-ordnance attacks (including OBA) and Area Target Type hits (5.51), vs non-Beached boats in Water Obstacles have their FP halved (or actually quartered due to the normal halved FP of Area Target Type hits) and are resolved on the IFT's ★ Vehicle line. Boats, like vehicles, are not subject to the DRM for FFMO/FFNAM. If the Final IFT DR is < the ★ Vehicle Kill Number, a number of such boat counters in that Location up to the highest KIA# listed in that column (A7.308) sink *[EXC: Defensive First Fire can affect only the unit being moved at the time]*. If the Final IFT DR equals the ★ Vehicle Kill Number, one such boat counter in that Location (unless any necessary Random Selection results in a tie dr) *[EXC: a three-boat Small Raft counter; 5.121]*, suffers Casualty Reduction *among its Passengers* (with no MC/LLMC for survivors); all others are unharmed. Otherwise, boat Passengers cannot be attacked separately *[EXC: Snipers; 5.54]*; they share the fate of their boat instead.

© 2000 Multi-Man Publishing, LLC

5.51 NON-ORDNANCE & AREA TARGET TYPE ATTACKS vs LANDED/BEACHED BOATS: All non-ordnance attacks and Area Target Type hits vs boats on land/Beached are resolved on the ★ Vehicle line of the IFT with full FP *[EXC: hits resolved using the Area Target Type still have their FP halved]* and the same IFT Effects DR as would be used for any unarmored target in that Location (see 5.53).

5.52 ORDNANCE FIRE vs BOATS: Ordnance Fire vs boats in a Water Obstacle affects only one boat counter in that Location per shot *[EXC: if using the Area Target Type; C3.33]*, although the Vehicle Overstacking penalty (A5.132) applies. Ordnance Direct Fire To Hit attempts vs such a boat counter are resolved against a HD vehicular target *[EXC: HD status does not apply if the firer is an aircraft, or if the firer's elevation advantage is > the range (D16.3)]*. The +2 Case J To Hit DRM applies due to moving/Motion status, but no other subcases of J are applicable.[16] If a boat is hit using the Vehicle or Infantry Target Type, it sinks (see 5.53) *[EXC: a three-boat Small Raft counter is Reduced to a two-boat Small Raft counter (5.121) with no MC/LLMC for survivors]*. HEAT and ordnance ATR may not be fired at a boat that is Beached or in water (C8.31 applies on land). If firing with ordnance at a Beached boat or one on land, the +2 Target Size (D1.75) DRM, HD, and Motion status do not apply; all boats on land/Beached are treated as average-size targets for To Hit purposes.

5.53 SINKING: Whenever a boat counter is sunk (not just Reduced), all of its Passengers are also eliminated—unless the boat is Beached or in *shallow water (defined as fordable; B21.122)* in which case they undergo IFT attack normally using the same DR that sank the boat modified by the Hazardous Movement DRM. All SW/Guns of a sunk boat are lost even if Beached or in fordable water.

5.531 WATER LINE: The former Passengers of a Beached boat that is sunk remain in that Water Obstacle hex but are treated as if they were Infantry in a level -1 Open Ground land (not Water Obstacle) hex in every respect except that they are subject to the Hazardous Movement DRM as long as they remain Infantry in that hex. This "Water Line" existence occurs only to the former Passengers of a sunk, Beached boat, or to those who have left a boat during the MPh and directly entered a concealed enemy Location (A12.15) and are thereby returned to their Water Obstacle hex as Infantry (not to their boat as Passengers). Once these units successfully exit their Water Line position, they may not re-enter it.

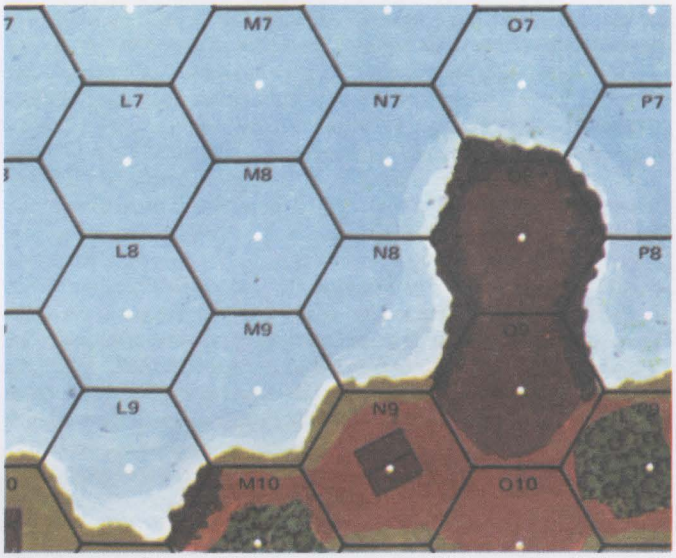
5.532 SHALLOW WATER: The Passengers of a boat sunk in Shallow Water immediately become Fording Infantry (B21.41-.43) in that Water Obstacle Location.

5.54 BROKEN/BERSERK UNITS: A broken/berserk unit may not enter a boat. A boat Passenger never takes a MC/TC for any reason. Vs a boat Passenger, a Sniper attack that would ordinarily break a MMC is treated as Casualty Reduction, and pin results are ignored.

5.6 CC: When a boat/amphibious vehicle occupies the same Water Obstacle Location with an enemy unit during the CCPh, its Passengers are subject to CC—whether the enemy unit is in a boat, amphibious vehicle, on a pontoon bridge, or actually in the water (swimming/fording). Boats are not required to remain in Melee, and may move normally in their MPh/APh (i.e., drift) despite the presence of enemy units. Boat Passengers are subject to a +2 DRM when attacking in CC and a -2 DRM when defending in CC in the same manner as truck Passengers. The boat itself cannot be attacked by CC and is destroyed only if all its Passengers are eliminated. A manned boat can be captured only if its Passengers are captured (A11.52), although once captured the prisoners can be rejected (A20.3) without harming the boat.

6. SWIMMING

6.1 WATER ENTRY: Use of the swimming rule does not give the crew/Passengers of an eliminated boat or amphibian a survival opportunity; they are still eliminated normally with their vehicle. Personnel are allowed to swim only in non-frigid Water Obstacles and only if they enter the water directly from a land/bridge Location immediately following a successful swimming TC (Δ). Upon passing this TC, the Personnel unit *must* then use all of its MF allotment to enter an adjacent Water Obstacle during that MPh. A Water Obstacle cannot be entered by a swimmer during the APh. Failure of the swimming TC prohibits the unit from making any other movement during that MPh, but does not prevent it from attempting another swimming TC in one of its subsequent MPh. A unit that enters a Water Obstacle across a cliff hexside, or from any upper building level or bridge higher than water level, must also pass a MC (Δ) after entry with a + DRM equal to the level from which the unit jumped. A unit may jump from an upper building level only if the building depiction is within a counter edge width from the cliff/water depiction. Broken/wounded units may not swim and are eliminated if already in the water. Swimmers do not take PTC, and are not subject to Pin/Heat of Battle/LLMC results.



EX: Entry into 8L9 from M10 (level 1) requires a 1MC; entry into O7 from O8 (level 2) requires a 2MC. Entry into U6 from the 1st level of building V6 (level 3) requires a 3MC. A unit entering N8 from N9 requires no MC despite the two-level elevation difference, because the entry was not across a cliff hexside or from a bridge.

6.2 SWIMMING: Movement from one Water Obstacle to another requires all of a swimmer's MF. A swimmer may not advance in the APh *[EXC: Drift]* except to enter a land hex (or pontoon bridge) through a non-cliff hexside. Swimmers/forders may enter an abandoned/friendly boat/amphibious vehicle in the same Location, but only during their APh. Swimmers/forders may enter an enemy-occupied boat but only if Beached/paddled and only during a CCPh in which they have successfully captured all enemy Passengers (5.6). Current affects swimmers during the APh in the same manner as it affects a paddled boat (B21.121). Swimmers may not fire, but can engage in CC using only their inherent "(1)" unarmed CC factor (even if using rafting; 6.41). Swimmers have no CCV, and may not tow a boat or amphibious vehicle (and vice versa) and may not be concealed.

6.21 DROWNING: A DR (Δ) must be made for each swimmer at the end of every friendly APh in which that swimmer is in a non-fordable Water Obstacle. The swimmer is eliminated on a DR ≥ 12 in a Slow current, on a DR ≥ 11 in a Moderate current, and on a DR ≥ 10 in a Heavy current. If a Drift dr (B21.121) is also required, it should be made automatically as an inherent part of the Drowning DR by using the colored dr with no drm.

6.3 TEM: Swimmers are not eligible for any TEM (although they can benefit from LV and SMOKE DRM). FFMO/FFNAM do not apply to swimmers. HE (and IFE) attacks vs swimmers are not subject to halved FP *[EXC: if using the Area Target Type]*, but all other non-CC attacks are.[17] HE Equivalency (C8.31) may not be used vs swimmers.

© 2000 Multi-Man Publishing, LLC

6.4 PORTAGE: Swimmers cannot portage any equipment (including their own inherent SW/Small Arms FP). MMC swimmers are represented by Unarmed units *[EXC: rafting units; 6.41]*. SMC are not exchanged for Unarmed units but are likewise similarly restricted, although their leadership/heroic DRM still apply.

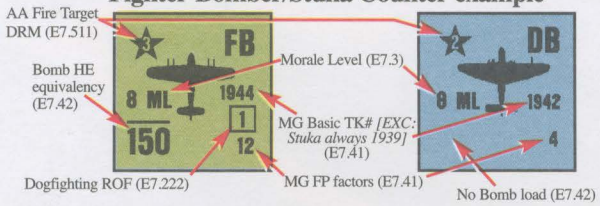
6.41 RAFTING: If SSR allows, any Personnel unit that rolls < its ELR with the colored dr of its swimming TC DR (or that is cited by SSR) is assumed to have found enough material to make sufficient floating platforms to carry its Small Arms (but not its SW) and inherent SW as it swims, provided it enters the water without need of a jump MC (6.1). Such a swimmer is not represented as Unarmed; it retains its normal counter form even though it may not fire (or attempt to place SMOKE) while swimming. The Small Arms represented by an armed swimmer are eliminated with that swimmer if it is eliminated.

6.5 CAVALRY: Cavalry may swim using the same rules with the following exceptions: Cavalry do not require a TC to attempt to swim, are not represented as Unarmed units, retain their full CC FP but cannot otherwise fire, cannot enter the water from a Location that would require a MC, and cannot use rafting. Cavalry may carry up to their IPC while swimming.

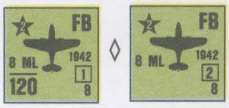
6.6 FORDING LINES: A SSR may specify the presence of fording lines across a non-fordable Water Obstacle by allowing a player to specify a hexrow as fordable by Infantry (B21.41). Such units are not swimmers and remain armed. A swimmer who enters a fording line hexrow may ford via the fording line. However, a broken/wounded/berserk unit fording via a fording line is considered eliminated, as is any fording unit that leaves the designated fording hexrow while in the water (unless a former swimmer). Forders *using a fording line* may not fire while fording, and if engaging in CC can use only their "(1)" inherent CC factor. A fording line can be eliminated as if it were a Field Phone line (C1.23), or by an unbroken Personnel unit that merely declares the attempt in a friendly fire phase while in a land/water Location of that line (provided that Location is not occupied by an enemy unit), or by any motorized amphibian/boat that passes from a hexrow adjacent to the line through its hexrow into the other hexrow adjacent to it. Otherwise, normal fording rules apply.

7. AIR SUPPORT[18]

Fighter-Bomber/Stuka Counter example



7.1 DYO: See H1.531.



7.2 ARRIVAL: Air Support is never allowed during night or Overcast, or against a Location in or beneath Fog. However, in any other scenario in which a player has received Air Support by SSR or DYO, he must make a dr during the RPh of each of his Player Turns *until* he rolls < the current Game Turn Number. Once he does this, his Air Support must be placed onboard in his next MPh.

7.21 ENTRY: Upon mapboard entry, another Air Support dr (halved; FRU) must be made to determine the number of aircraft the player receives. This determined, one more dr is made for all aircraft as a group to determine if they are armed with bombs (and in some cases to see if Stukas or *Fighter-Bombers* {hereafter referred to as FB} are received) by rolling ≤ the exponent of the applicable Air Support Number (see H1.531 Table). The aircraft are then placed onboard with the appropriate side face-up. All aircraft received will be of the same type and armament. Aircraft have an unlimited movement capability and may be placed anywhere on the mapboard. As aircraft operate at a level above the topography represented by the board, their movement is not restricted by terrain, enemy units, stacking, or any other factor. However, once an aircraft leaves the mapboard it may not return. Each aircraft remains on the mapboard until eliminated (7.221, 7.511, 7.52), Recalled (7.24), or voluntarily exited during an enemy MPh (unless engaged in Aerial Melee; 7.22). For Seaborne Assaults, see G14.262; for napalm usage, see G17.4 for U.S., G17.42 for British, and G18.831 for Chinese.



7.22 AERIAL COMBAT: Only an undamaged FB can voluntarily enter Aerial Combat. To enter Aerial Combat, a player places his FB on top of one or more enemy aircraft during the CCPh and covers them with a CC marker. He may place several of his FB on one enemy aircraft, one FB on several enemy aircraft, or place several of his FB on several enemy aircraft in one or more groups. Each group (or stack) of aircraft beneath a CC/Melee counter is termed a Dogfight. In each CCPh, the ATTACKER's aircraft in each Dogfight attacks one enemy plane in that Dogfight in sequential CC. All ATTACKER planes resolve their attacks (including any additional attacks allowed by retained ROF; 7.222) before any surviving DEFENDER plane can return fire. The DEFENDER's plane cannot attack back if eliminated. If the CCPh ends with planes of both sides still remaining under the same marker, that counter is flipped to its Melee side provided at least one undamaged FB with functioning MG of either side wishes to hold opposing aircraft in Aerial Melee *[EXC: Recall; 7.224]*. Aircraft in Melee cannot engage in any other activity and are forced to engage in Aerial Combat again in the next Player Turn if opposed by an undamaged FB with functioning MG *[EXC: 7.223-.225]*. Normal CC Withdrawal rules do not apply.



7.221 DOGFIGHT RESOLUTION: Aircraft in each Dogfight must predesignate their initial targets (ATTACKER first); i.e., a plane may not await the outcome of earlier attacks in its Dogfight to determine which opposing plane in that Dogfight to attack. A plane can attack only one opposing plane at a time—regardless of the number of enemy planes in that Dogfight. A Final Attack DR ≤ 4 eliminates the target. A Final Attack DR of 5 Damages (7.226) the target (mark it with a Wound counter). If a FB rolls an Original Aerial Combat DR of 11 while attacking a Stuka, it is assumed to have been hit by the Stuka's rear gunner. If the colored dr of the Original 11 DR was a 6, it is eliminated; otherwise it is Damaged. Aerial Combat DR are subject to the following cumulative DRM:

DRM	Cause
+1	Firer is Stuka
+1	Firer has bombs
+1	Firer is Damaged
-1	Target is Damaged
-1	Target is not a FB
-1	Target has bombs

7.222 ROF: A FB has an Aerial Combat ROF of 1 if carrying bombs, and 2 if not. Thus, if the colored dr of an Aerial Combat Attack DR of any FB without bombs is ≤ 2, it may attack again during that CCPh before receiving any return fire. Its target may be any plane in its Dogfight. Only FB have an Aerial Combat ROF. An Aerial Combat ROF cannot be used against a ground target.



7.223 MALFUNCTION: An Original Aerial Combat DR of 12 results in MG malfunction. Mark that plane with a MG Disabled counter; it may not attack in Aerial Combat or Ground Support thereafter *[EXC: it may still bomb]*. A FB with disabled MG may opt for Recall (7.24) at the end of the current CCPh unless it is in Aerial Melee with an undamaged enemy FB whose MG are functioning.

7.224 RECALL: Any plane that is attacked by a Final Aerial Combat DR of ≥ 10 has the option to accept Recall (7.24), thereby escaping Melee by leaving the game. Such option must be exercised at the end of that CCPh.

7.225 JETTISON: A plane may jettison its bombs by simply inverting its counter during its own MPh (even if in Melee) to improve its chances in Aerial Combat.

© 2000 Multi-Man Publishing, LLC

7.226 DAMAGE: A Damaged plane is Recalled (7.24) unless held in Aerial Melee. Any Damaged aircraft that is Damaged a second time by any means is eliminated.

EX: Two British FB with no bombs are placed on top of three bomb-laden Stukas during the British CCPh. The British player designates that his planes will attack separate targets. The first British plane rolls an Original 7 DR (with 1 on the colored dr), resulting in a Final DR of 5 (7 - 1 [target is not a FB] -1 [target has bombs] = 5) which Damages Stuka "A". Having retained his ROF, the FB attacks again—choosing to attack the Damaged Stuka "A" again to receive an additional -1 DRM, and rolls an Original 8 for a Final DR of 5 which eliminates Stuka "A". Having retained his ROF yet again, the FB now attacks Stuka "C" but rolls a 12, thereby disabling its MG and giving Stuka "C" a Recall Option. The British player would like to attack Stuka "C" with his other FB before that Stuka can escape at the end of the CCPh, but is unable to do so now because his initial attack was predesignated against Stuka "B". He must attack Stuka "B" at least once before switching targets to Stuka "C". However, his Original Aerial Combat DR is a 9, resulting in no effect and failure to retain his ROF. The German may now return fire with the two surviving Stukas but is subject to a +2 DRM to both attacks, and his Original DR of 4 and 7 fail to have any effect. The CCPh is now over and the CC counter is flipped to the Melee side. The British player, because he is not opposed by FB, may leave Melee but chooses not to. Instead he Recalls only the FB with the Disabled MG. The German chooses not to Recall Stuka "C" and consequently the two German Stukas will be allowed to attack the remaining FB first in their CCPh.

7.23 ELIMINATION & VICTORY POINTS: Aircraft may not ram other aircraft or ground units. If shot down they are simply removed from play, although they are worth two Victory Points (A26.212) *[EXC: the Passengers of a glider are worth Victory Points—not the glider itself]*. Aircraft never earn Exit Victory Points (A26.23).

7.24 RECALL: A Recalled aircraft is simply removed from play at the end of the current phase; it is not counted towards Casualty Victory Conditions. An aircraft can be Recalled in three ways: during Aerial Combat (7.223-.224), during a Sighting TC (7.31), or due to Damage (7.226, 7.511, 7.52).

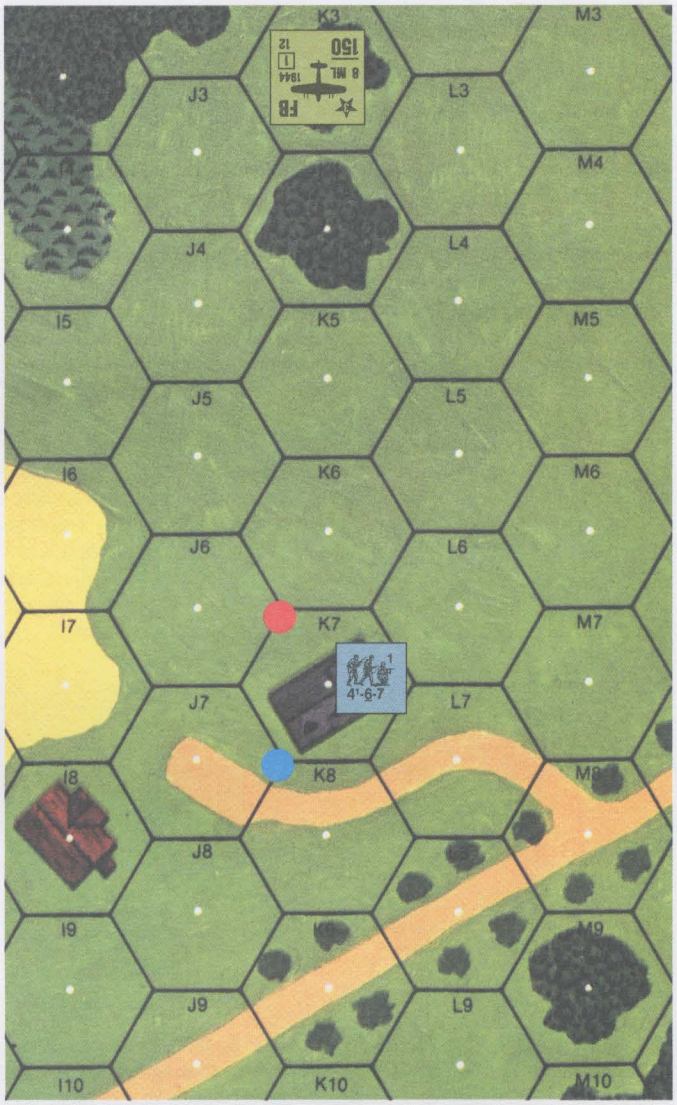
7.25 AERIAL LOS: Given its ability to fly anywhere over the mapboard (and thus to move to the most advantageous viewing position), an aircraft counter is theoretically able to see (provided it passes a Sighting TC; 7.3) any non-hidden unit that is not completely surrounded by LOS obstacles at least one level higher than its own Location. Before it can attack, an aircraft counter must always move to an attack position (7.4-.403)—from which Blind Hexes can still occur. Aircraft cannot cause loss of "?" or prevent the gaining of "?" by "seeing" an enemy unit; aircraft cause "?"-loss only by attacking concealed units and scoring at least a PTC result on the IFT (provided that attacked unit is within the LOS of a Good Order enemy ground unit). However, a unit moving in Open Ground would not be considered concealed to the aircraft, although the aircraft player may not inspect that stack unless it passes the Sighting TC. Should such a Sighting TC reveal only a Dummy unit, the aircraft has the option of whether or not to count that Sighting TC as its only allowed Sighting TC for that turn, but is subject to Light AA fire regardless of his choice. All Aerial units are considered to be at sufficient elevation to reduce the number of Blind Hexes created by any full-level-or-higher LOS Obstacle to one hex, and to see INTO any Depression barring other LOS obstacles. To an Aerial viewer, the Blind Hex created by bocage is the hex formed by the bocage hexside. LV Hindrances (Mist; 3.32) also apply to Aerial LOS, as per the Aerial Range (E.5).

7.3 SIGHTING TC: Before a plane can make a Ground Support attack, it must first pass a Sighting TC from its initial attack hex along a specified Hex Grain to the target it wishes to "sight". All aircraft have a Morale Level of 8 for purposes of Sighting TC. Failure to pass a Sighting TC results in the aircraft being unable to make a ground attack *[EXC: Mistaken Attack; 7.32, 7.62]*, and being immune to Light AA (7.51) fire, during that Player Turn. The Sighting TC is based on the easiest target to spot in its initial target hex. Once an aircraft has sighted its initial target it need not take any additional Sighting TC to attack other units along the same Strafing Run during that Player Turn (see 7.43). The Sighting TC is subject to the following cumulative DRM:

SIGHTING TC DRM

DRM	Condition
+X	SMOKE Hindrance DRM as per E.6
+3	Target is in building/woods/rubble/orchard (in season)
+1	Target is in brush/grain/marsh/crag/graveyard
+1	Target is within four hexes of non-HIP vehicle/MMC friendly to and in the LOS of the aircraft
+1	Mist/Dust/Heat-Haze (regardless of Aerial Range)
-1	Target is vehicular, or boat in water
-1	Target has entered a new hex/used VBM/been in Motion during this Player Turn*
-1	Target is part of a Convoy or Column
-1	Target has been attacked by a friendly plane during this Player Turn
-2	Target is not entirely concealed/HIP

*Dashing or movement totally inside a building/trench/pillbox is not applicable.



EX: A 4-6-7 is in the 19K7 building, and a truck is in stationary Bypass at K7-K6-J6 (red dot). The FB is moved to K3 and faced towards K7 to make its Sighting TC along the K3-K4 Hex Grain. Were the truck not present (or if it were out of the plane's LOS at vertex K7-K8-J7 {blue dot}), the FB would have to add a +3 DRM for the building and a -2 DRM for the squad's not being concealed, so it would have to roll ≤ an Original 7 to pass its Sighting TC. However, since the vehicle is in LOS and in the Open Ground portion of the building hex, the -1 DRM for a vehicular Target and the -2 DRM for not being concealed are applicable, so the Sighting TC is passed on an Original DR of ≤ 11. K8 and K10 cannot be attacked because they are Blind Hexes *[EXC: K10 could be attacked with a +1 LOS Hindrance DRM if the K9 orchard were out-of-season; B14.2]*, but K9 can be attacked without an additional Sighting TC. Had a non-dispersed WP Level 4 counter existed in K6, a +2 DRM would have applied to both the Sighting TC and the resulting attack. Any SMOKE Hindrance in K7 would have applied to the Sighting TC and resulting attack.

© 2000 Multi-Man Publishing, LLC

7.31 RECALL: An Original Sighting TC DR of 12 results in Recall at the end of the MPh/DFPh of the TC, although if it also results in a Sighting/Mistaken Attack[19], that turn's attack is resolved first.

7.32 MISTAKEN ATTACK: A Final Sighting TC DR ≥ 12 results in a Mistaken Attack. The ATTACKER may then immediately move the aircraft (but only onboard; he may not exit it from play by moving it offboard) and attack (without a new Sighting TC) the DEFENDER's non-hidden onboard ground unit that is closest (in hexes) to the aircraft's initial target and not in a completely Blind Hex (ATTACKER's choice of equidistant targets). If strafing, this attack must be continued (using MG/bombs) to include any other onboard ground units within the range and Hex Grain of a normal Strafing Run. The plane can use a different Hex Grain and type of attack than that initially planned by the DEFENDER.

7.4 GROUND SUPPORT: Aircraft may attack ground targets (but no Locations devoid of enemy units *[EXC: Observation Planes]*) anytime during the opponent's MPh (or the plane's DFPh) by making a Strafing Run or Point Attack. An aircraft must always state whether it is making a Strafing or Point Attack just before resolving its second attack. Aircraft attack individually; they may not form a FG, but may attack the same target(s) and leave Residual FP normally. The C3 To Hit Table notes the applicability of To Hit DRM to Aerial attacks. Walls/hedges/roadblocks do not provide any TEM to a Ground Support attack. The DEFENDER may add an additional board to any board edge so that his aircraft can set up in its initial attack hex outside the confines of the scenario board configuration. An aircraft cannot attack a Location to which it has no LOS and cannot Interdict.

7.401 STRAFING: An aircraft strafes by first being placed along a specified Hex Grain so that it is four hexes away from the initial target hex and facing same. After it passes its Sighting TC, and after all Light AA fire (7.51) against it has been resolved, it may fire on its initial target. The aircraft then moves to the next hex along the predesignated Hex Grain toward that target and, after receiving all Light AA fire in this hex, may (if it chooses) make another attack DR on a new target hex four hexes distant. The aircraft repeats this procedure (henceforth referred to as a Strafing Run) in every hex traversed until it occupies the target hex of its initial target. At this point it cannot attack again during that Player Turn, but must attempt to continue moving along that Hex Grain to receive all possible Light AA fire until it occupies the last hex it attacked. After receiving all Light AA fire in that last target hex, it is moved to an out-of-the-way corner of the mapboard where it is immune to further Light AA fire until it attacks again in a subsequent Player Turn.

7.402 POINT ATTACKS: A FB makes a Point Attack in the same manner as a Strafing Run with the following differences. After a FB has made its initial attack from four hexes away and has moved toward that target to the next hex along the predesignated Hex Grain, it may attack the same target hex again. Moreover, because it is now attacking from only three hexes away (six-hex Aerial Range), any To Hit DR is based on the 0-6 column of the To Hit Table instead of the 7-12 column. After this second attack, the FB must still attempt to continue moving along the predesignated Hex Grain until it occupies its target hex for purposes of receiving Light AA fire, but cannot make any additional attacks during that Player Turn.



7.403 STUKA: A Stuka must start a Point Attack from a hex adjacent to its target hex where it must pass its Sighting TC and make any initial MG (only) attack with its 4 FP. Regardless of the outcome of its first MG Point Attack, all unbroken Infantry *[EXC: those normally immune to Pin effects]* fired on in the target hex are pinned. After its initial MG attack (if any) is resolved, the Stuka is moved to the target hex itself where it may attack again with its MG and drop its bomb load, using the 0-6 column of the To Hit Table. Following its attack, the Stuka must attempt to continue moving along its Hex Grain of Approach for three more hexes for purposes of receiving Light AA fire. A Stuka making a Point Attack, unlike a FB, may attack from its present hex *before* receiving Light AA fire. A Stuka making a Strafing Run must do so normally; i.e., from four hexes distant, receiving Light AA fire before making each attack. A Stuka cannot bomb during a Strafing Run.

7.41 MG ARMAMENT: The IFT FP of FB varies according to the time frame of the scenario. All FB have six FP prior to 1942, eight FP in 1942-43, and 12 FP in 1944-45. This FP can be used against up to four target hexes during each Player Turn in a single Strafing Run and is not subject to Cowering. If attacking a building hex, each level of the building in that hex (including Rooftops if that rule is in play) in LOS is attacked with the same IFT Effects DR as a single attack vs that hex. No To Hit DR is necessary except vs an armored target (A9.6), in which case a hit must be secured (with a separate DR and all applicable Aerial Attack DRM; C6) on the 7-12 column if the Aerial Range is eight hexes, or on the 0-6 column if the Aerial Range is ≤ six hexes, using the Vehicle Target Type and the Black To Hit Number. An aircraft's MG Basic To Kill Number is listed under either 39F, 42F, or 44F (depending on the scenario's year) on the AP To Kill Table (C7.31) *[EXC: both Stuka types always use the 39F TK#]*, and is modified only by the Aerial AF of an AFV (C7.12), Aerial Advantage (C7.22), and rear Target Facing (C7.21). Neither To Kill Case C (CH) nor Case D (Range Effects) apply to Aerial MG attacks. Unlike all other MG To Kill attempts however, an aircraft's MG may attack other unarmored targets in the same hex as the AFV—using the Original To Hit DR vs the AFV as the IFT Effects DR (modified appropriately) vs any unarmored targets (in lieu of any Collateral Attack vs vulnerable PRC). Use the MG—not the Direct Fire—column of the AFV Destruction Table to resolve the attack vs the AFV. A MG attack Original Effects (or To Hit if used as ordnance) DR of 12 results in the permanent breakdown of that weapon. Mark that aircraft with a MG Disabled counter.

7.42 BOMBS: Each FB or Stuka can carry one HE bomb load which it fires as an Ordnance weapon on the IFT vs unarmored targets or on the HE To Kill Table (C7.34) vs armored targets. If attacking a building hex, the effect is resolved against all targets in LOS in the building hex with the same IFT Effects DR as a single attack vs that hex. This bombing capacity can be used only once per aircraft. A FB can bomb any target four hexes distant as part of its Strafing Run (or three hexes distant if making the second attack of a Point Attack), but must first score a hit on the 7-12 column (or the 0-6 column if the Aerial Range is ≤ six hexes) of the applicable Infantry/Vehicle Target Type of the To Hit Table (C3), using all DRM applicable to Aerial Attacks (C6) and the Black To Hit Number. If a target hex contains both vehicles and non-vehicular targets, the same To Hit DR is applicable against both Target Types and is resolved against whatever Target Types are hit. The bomb attack can be made with or without an accompanying MG attack but, if made in conjunction with a MG attack, it must be predesignated before resolving that MG attack and resolved after that MG attack. After a bomb attack, the aircraft is flipped over to its reverse side to signify that it no longer has any bombs. Once a bomb To Hit DR is made, that aircraft may not continue to Strafe during that phase; i.e., the bombed hex becomes its final target hex. A bomb To Hit attempt that results in a miss is not resolved vs any target.

7.421 vs AFV: Unless occurring on the Area Target Type (7.422), a bomb hit vs an AFV can be one of two types. If the Final To Hit DR is ≤ half of the Basic TH# (i.e., ≤ 5 unless a FB bombs from an Aerial Range of eight hexes), the result is a Direct Hit and is resolved vs the Aerial AF of the AFV with the HE Basic TK# of the bomb load. If the Final To Hit DR yields a hit, but is not ≤ half of the Basic TH#, the result is a Near Miss and is resolved vs the Aerial AF but with only half of the bomb's Basic TK# and half FP for any Specific Collateral Attack. To Kill Cases A and B (C7.21-.22) for Aerial Advantage and rear Target Facing apply in both instances. Any additional AFV in the same Location is unaffected except by the provisions of Overstacking (A5.132). Regardless of the type of hit achieved vs an AFV *[EXC: Dud]*, all unarmored targets in the same Location are also attacked if hit. Each unit hit is attacked with the same IFT or To Kill DR.

EX: A FB making a Point Attack from three hexes away is dropping its bombs on an Open Ground hex containing a moving, BU Pz VIE Tiger tank, a stationary Opel Blitz truck, a squad, and an entrenched HS. The bombs can conceivably affect all four units, depending on the To Hit DR. The Tiger is hit on an Original To Hit DR ≤ 9 (10 [Basic TH# at six-hex Aerial range] +1 [Target Size Modifier] -2 [Moving] = 9) and the truck by an Original TH DR ≤ 10. The squad is hit by an Original TH DR ≤ 8, and the HS by an Original TH DR ≤ 6 (+2 TEM). All four targets are hit if the Original TH DR is ≤ 6, and each hit is resolved with the same IFT or To Kill DR.

© 2000 Multi-Man Publishing, LLC

7.422 AREA TARGET TYPE: An aircraft may make a bomb attack using the Area Target Type instead of the Vehicle/Infantry Target Type, but any hit is resolved with only half the FP of the bomb load. All in-LOS ground units in the target hex are affected if hit, and the effect of the hit vs each unit is resolved on the IFT with a single DR although the applicable TEM of each unit may vary accordingly. AFV are subject to the C1.55 Indirect Fire vs AFV IFT DRM.

7.43 TARGET STATUS: An attacking aircraft counter does not have to base its Sighting TC on a moving unit. Unlike other units, it may attack both moving/non-moving units during Defensive First Fire with the same attack; any applicable DRM for movement (such as FFMO/FFNAM or the Case J To Hit DRM) are applicable only to those target units that happen to be moving (C.8) at the time of the attack. However, a successful Sighting TC vs a moving unit prevents that unit from expending any further MF/MP until that aircraft completes its attacks. An AFV that is the subject of a Sighting TC cannot change its CE/BU status before the initial attack of that successful Sighting TC is resolved (D5.33), but can thereafter (within the limits of D5.33)—as can other vehicles in subsequent target hexes of a Strafing Run, provided they do so before their hex becomes eligible for attack. Only one aircraft counter may attempt a Sighting TC before allowing the ATTACKER to expend at least one MF/MP with one of his units. If the ATTACKER declines to expend any MF/MP, the DEFENDER may then elect to attempt another Sighting TC with another aircraft. Each attacking aircraft counter resolves all of its attacks for that Player Turn before the ATTACKER is allowed to expend another MF/MP with any unit, and before another plane is allowed to take a Sighting TC.



7.5 AA FIRE: Whenever the ATTACKER uses AA fire vs aircraft, he must do so with AA-capable units that have not yet exhausted their fire capabilities during that Player Turn. Only an AA-capable weapon (as listed in 7.51 & .52) that sets up able to fire can set up in AA mode (i.e., marked with an "AA" counter). An AA counter must be placed on any AA-capable weapon that attacks an Aerial target while not in AA mode, and the AA counter is removed from any weapon that fires on a ground target while in AA mode *[EXC: Vehicular AAMG do not use AA counters and can fire at ground/Aerial targets without consideration of AA mode]*. Whenever a weapon's AA counter is placed or removed due to its making an attack, its ROF is reduced by one for that one attack only (cumulative with all other ROF reductions) *[EXC: MG; 7.51]*. An AA-capable weapon's AA mode can also be changed at the end of any fire phase (not MPh) in which that weapon can/does change its CA as per the first sentence of C3.22 (even if it is not a Gun). A weapon cannot be marked for Opportunity Fire if in AA mode, but an AA-capable weapon marked for Opportunity Fire can be used vs aircraft by removing the Opportunity Fire counter and placing an AA counter. A weapon in AA mode may be (un)limbered/pushed/hooked up, or dismantled/portaged/loaded/Removed/Scrounged from a vehicle, but doing so causes it to lose its AA counter. An AA-capable weapon may not fire at an Aerial target from a Location that is Blind to that target *[EXC: Heavy AA; 7.52]*, nor from inside a building or pillbox. An AA-capable weapon marked with an AA counter may not form a FG *[EXC: Mandatory FG; A7.55]* or use a Fire Lane vs Aerial targets, nor may it use Subsequent First Fire/Intensive/Sustained Fire vs aircraft (or vs any ground target in that Player Turn). An attack vs an Aerial target never leaves Residual FP or affects more than one Aerial target. A unit that exhausts its full ROF in AA fire is marked with a Prep Fire (or Bounding Fire if a moving vehicle) counter as well as retaining the AA marker.

7.51 LIGHT AA: Because aircraft counters attack during the opponent's MPh/friendly DFPh, Light AA fire vs Aerial targets always functions as a form of Defensive (First) Fire by the ATTACKER. Aerial aircraft counters are assumed to be out of Light AA range[20] except when conducting an attack run after a successful Sighting TC or while in their Intended Landing Hex (8.2). *Only AA Guns with IFE, Infantry-manned HMG[21], vehicular AAMG, and AA-capable MA/CMG can fire at aircraft counters as Light AA*. AA Guns with IFE (C2.29) use that IFE (and a ROF reduced by one: C2.29) vs aircraft directly on the IFT without a To Hit DR. A MG loses its multiple ROF capability when it fires at an Aerial target and is subject to Cowering, but no leader DRM may apply. A Light AA weapon may not attack the same Aerial target more than once in the same target hex per Player Turn. A vehicle conducting Light AA fire is subject to Bounding First Fire penalties only if it is in Motion or has already expended a MP during that MPh. Regardless of its movement status, a vehicle does not have to expend a MP (C2.24) between each shot when using Light AA fire.

7.511 RESOLUTION: Light AA fire vs aircraft is resolved on the ★ Vehicle Line of the IFT (Δ), but is never modified by TEM or Hindrances other than LV/SMOKE. Aircraft are not subject to the DRM for FFMO/FFNAM, but are subject to a special positive DRM equal to the number inside the ★ symbol on the aircraft counter.[22] If the Final IFT DR is < the ★ Vehicle Kill Number, the aircraft is eliminated; if the Final IFT DR equals the ★ Vehicle Kill Number, the aircraft is Damaged (7.226). If the Final IFT DR is one > the ★ Vehicle Kill Number, the aircraft must break off its attack and evade. A Damaged/evading aircraft still receives all Light AA fire in its current hex before making any attack, and is still subject to Light AA fire until it exits the hex it last attacks or first sighted (whichever occurred last) *[EXC: a Stuka making a bomb attack must extend its "flyover" another three hexes as per 7.403]*. Damaged/evading aircraft must add a +1 DRM to its IFT DR (or To Hit DR for bombs) for any attack it makes from its current hex during that Player Turn, and may make no further Ground Support attacks during that turn.

7.512 UNLIKELY KILL: An Original IFT DR of 2 vs an aircraft always results in a chance of success for the attacker, even if a combination of DRM/insufficient FP otherwise makes success impossible. The attacker makes a subsequent dr: if it is a 1, the aircraft is eliminated; if a 2, it is Damaged; if a 3, it is forced to break off its attack and evade. Otherwise, there is no effect. If the Original 2 DR would have Damaged the aircraft or forced it to evade (regardless of the subsequent dr), that Original result applies instead unless superseded by a more severe result via the subsequent dr.



7.52 HEAVY AA:[20] Only an AA Gun without a printed IFE may use Heavy AA fire vs aircraft, and only during that Gun's normal PFPh/DFPh (not MPh). Heavy AA fire may attack any Aerial aircraft on the board (including an Observation Plane; 7.6). A Heavy AA Original 2 To Hit DR eliminates an aircraft; an Original 3 To Hit DR Damages it (7.226); an Original 4 DR prevents it from attacking during that Player Turn (mark it with a TI counter). Normal Gun Malfunction/ROF rules apply. If more than one aircraft are onboard (including friendly aircraft), the target is determined by Random Selection. A -1 drm for friendly aircraft applies to the Random Selection dr unless those aircraft are in Aerial Melee (7.22). Each time a Heavy AA Gun fires on an aircraft, the white dr indicates how many hexspines the CA of the Gun must change in a clockwise direction (even if that CA change results in the Gun facing a Blind Hex).

7.6 AERIAL OBSERVATION: Observation Planes were valuable as mobile, all-seeing artillery Observers for directing OBA. Only one Observation Plane is available per side in any scenario, and is subject to normal aircraft rules except where specified otherwise below. An Observation Plane has an inherent radio, which is subject to malfunction/repair/disablement normally and replaces the one normally included as part of an OBA battery. Heavy AA fire (7.52) is the only way ground units can attack an Observation Plane. Even though technically offboard, an Observation Plane can be attacked in Aerial Combat (although it cannot fire back), and if held in Aerial Melee loses Radio Contact. For DYO see H1.532.

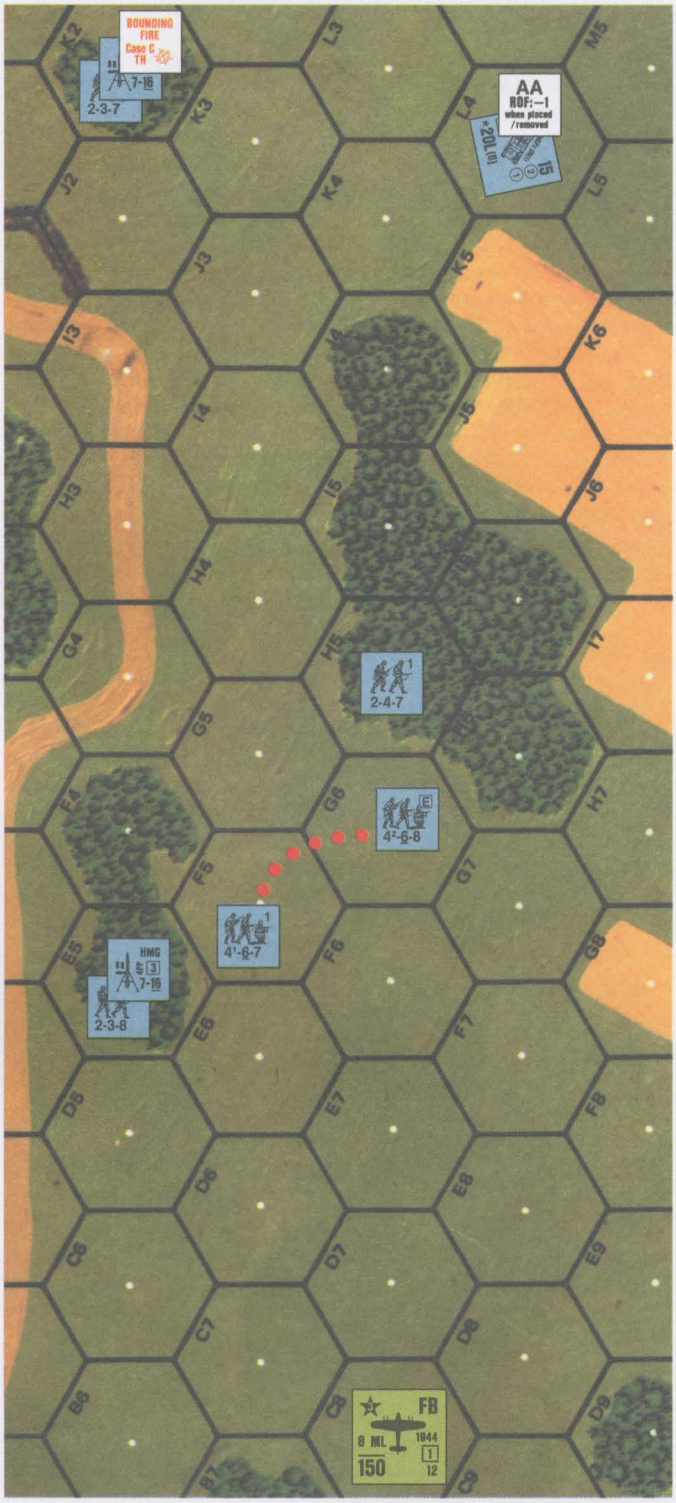
7.61 SIGHTING: An Observation Plane does not take counter form, but is considered just offboard until Recalled/eliminated. An Observation Plane is considered an Offboard Observer (C1.63) with the added advantage of being able to make its OBA Aerial LOS Checks from any Friendly Board Edge hex of the owner's choice. The owner may change the Observation Plane's hex at will, in an effort to sight the best target. Before an Observation Plane can request Battery Access, it must pass a Sighting TC (7.3) vs a Known enemy unit (or draw an additional black chit if the Sighting TC is

© 2000 Multi-Man Publishing, LLC

passed vs a HIP/concealed unit; [C1.211, C1.6] in which case the Sighting TC DRM apply as if vs a HIP/concealed unit) that will be in the planned seven-hex Blast Area of a hypothetical normal HE Concentration Fire Mission of any OBA that plane directs. Once an Observation Plane has sighted a target, it need not continue making Sighting TC as long as it is attempting to direct OBA vs that same target unit/hex until it needs to regain its Battery Access. Otherwise, an Observation Plane is subject to the same OBA rules as an onboard Observer, including the need to roll for Radio Contact/Maintenance *[EXC: Malfunction (C1.22) is NA]*.

7.62 MISTAKEN ATTACK: When a Mistaken Attack opportunity occurs (7.32), the opposing player calls for a FFE immediately with the plane's OBA —he does not require Sighting TC, Radio Contact, or Spotting Rounds. (If Battery Access is not achieved, no Mistaken Attack occurs.) The opponent's control of the plane and its OBA is limited to one Fire Mission vs the non-hidden enemy ground unit that is closest (in hexes) to the original target of the Sighting TC and in the Observation Plane's LOS. If the initial FFE is not accurately placed (C1.3), it must be Corrected toward either that unit or the original AR in its next PFPh or DFPh (whichever comes first).

EX: It is the German MPh in a 1944 scenario. The 4-6-7 enters 4G6, so the American player places his FB in C8, makes a Sighting TC on it, and rolls an Original "11" which, due to the -1 DRM for a moving target and the -2 DRM for an unconcealed target, allows the aircraft to attack that unit - as well as any other in-LOS unit in that hex. However, before the aircraft can attack from C8, the stationary FlaKPz 38(t) in L4, nine hexes away (Aerial Range 18 hexes) and already marked with an AA counter, conducts Light AA fire at it with three FP (halved IFE due to Long Range) on the ★ Vehicle Line of the IFT. The German unit rolls an Original 4 (1 on the colored dr to maintain its Multiple ROF), but the +3 DRM for the 1944 FB results in a Final DR of 7 and thus no effect. The aircraft makes its attack against G6 with its full 12 MG FP. A -2 DRM (FFMO & FFNAM, due to the squad's movement) applies to the 4-6-7 but not to the non-moving 4-6-8 in the same Location. The aircraft's Original 7 Attack DR is modified to a 5, which yields a 2MC vs the 4-6-7 but remains a 7 DR (and a 1MC) vs the 4-6-8. The aircraft now moves to D7 where it announces that it will continue a Strafing Run vs H5 (if Light AA fire does not destroy it first); any eligible targets in the next three hexes along that Hex Grain can be attacked without need of a new Sighting TC. This time the FlaKPz 38(t) has its full six FP because the target is now within eight hexes (16 hexes Aerial Range), but its attack's Original 10 DR causes loss of its Multiple ROF and has no effect vs the aircraft . The plane now attacks H5 with 12 FP and an Original 5 DR which, modified to a 6 by the woods TEM, causes a 2MC vs the 2-4-7. The aircraft then moves to E7 where it comes under Light AA fire from the HMG in K2 on the 6 FP column. The HMG could have fired on the aircraft earlier in C8 or D7 but chose not to because its FP would have been halved for Long Range Fire. The HMG is marked for Opportunity Fire but that counter must be removed to place the AA counter so it can use Light AA fire. The HMG's ROF is reduced to 0 for firing at an Aerial Target, and it rolls an Original 3 DR for a Final DR of 6, which Damages the aircraft . The aircraft must continue along the present Hex Grain until it reaches H5—its last target hex. I5 cannot be attacked anyway because it is a Blind Hex. The aircraft now moves to F6 where, had the aircraft not been Damaged, it could normally attempt its last attack—but J4 is also a Blind Hex due to the woods in I5 and therefore cannot be attacked. Although the aircraft's attack options are over, it must continue to move along the Hex Grain, accepting Light AA fire from eligible units, until it leaves H5. The HMG that Damaged the aircraft cannot be used against air or ground targets for the remainder of the current Player Turn. Because the aircraft is attacking during its DFPh, the ground units that are "Defensive First Firing" at it are actually firing during their MPh. If the FlaKPz 38(t) had been moving (as defined in C.8) its FP would have been halved as Bounding First Fire (7.51).



EX: A Non-Stopped (C.8) FlaKPz IV/20 Whirlwind is in AA mode when it is attacked by a strafing FB. Its Light AA FP vs the FB is quartered due to both Bounding First Fire (D3.31) and Non-Stopped fire (D2.42), but its ROF remains 2 (IFE ROF is always reduced by one; C2.29). Only after the FB completes its Strafing Run can the Whirlwind expend another MP to stop and, if it has retained its ROF, it can then fire on any other attacking aircraft in range and LOS with halved FP as Bounding First Fire. However, if it decides to fire on a ground target with IFE, it will have to removes its AA counter—thus reducing its ROF to 1 for its next shot.

© 2000 Multi-Man Publishing, LLC

8. GLIDERS



8.1 USAGE: Gliders can be used in a scenario only if the weather is Clear, Mud, Mist, Gusty, or Snow (not Falling Snow). Wind Direction is established (B25.64) even if there is no wind. Glider capacity (D6.1) varies by nationality: German, 14PP (DFS 230; cannot carry a $^5/_8$" counter); U.S., 19PP (Waco CG-4A); British, 29 PP (Horsa II). U.S. and British gliders can also use their PP capacity to carry a vehicle/Gun, using the PP Capacity table given in U.S. Vehicle Note 51 (LVT4). All SW/Guns transported in a glider must be dm if possible. All Passengers and equipment remain offboard, with their presence inside a particular glider noted by secret side record (use of the Cloaking Counter Display boxes on the Chapter K Divider is recommended to avoid written records) until the AFPh of the Player Turn in which it lands (8.4). Glider Passengers forfeit all their normal capabilities (i.e., they may not fire, move, direct/assist/affect other units) until the AFPh of the Player Turn in which they land and, contrary to A12.12, may not enter the board concealed except possibly as the result of an offboard landing (8.221).

8.11 DYO: See H1.48.

8.12 PASSENGER STATUS: Glider Passengers do not take PTC, and are not subject to Pin/Heat of Battle results.

8.2 AVENUE OF APPROACH: At the start of the MPh of the Player Turn in which they will land, all gliders are simultaneously placed on board; each in its Intended Landing Hex (hereafter referred to as ILH). No stacking of gliders is allowed at this point, although they may later involuntarily land in the same hex. All gliders landing during the scenario must land facing the current Wind Direction; therefore, each glider is placed so as to face that particular hexside of the ILH, thus defining the Hex Grain (not Alternate Hex Grain) approach of that ILH. This Avenue of Approach comprises the five hexes that directly precede the glider's ILH (i.e., the five hexes that lie directly astern of the glider) along the Hex Grain that glider is aligned with. This Hex Grain approach need not be the same as that of any Paratrooper Wings dropping on the same turn.



8.21 DEFENSIVE FIRST FIRE: Once all gliders are placed in their ILH, the DEFENDER may attack them with Light AA fire as per 7.5-.511 as each attempts to land, except as modified below. If the Final IFT DR equals the ★ Vehicle Kill Number, the glider has been Damaged, is marked with a Wound counter, and must take Evasive Action (8.211) after all Light AA fire vs it in its present hex is resolved. Attacks are not resolved vs the Passengers (including all SW/Guns/Vehicles aboard) separately (see 8.4). A Final IFT DR one > the ★ Vehicle Kill Number forces the glider to take Evasive Action.

8.211 EVASIVE ACTION: A glider takes Evasive Action only as a result of effective enemy Light AA fire, and must be moved randomly to a new ILH by making a Random Location DR measured from its present hex after resolving all Defensive First Fire vs it in that hex. Regardless of the number of times it is shot at in an ILH, a glider will make only one Evasive Action DR in each ILH. The Hex Grain of the glider's Avenue of Approach never changes. A glider can continue to be Defensive First Fired upon by the same or a different Light AA firer in its new ILH and forced to move to yet another ILH. Following the resolution of all Defensive First Fire vs an Aerial glider, that glider resolves its attempt to land in the ILH currently occupied.

8.22 LANDING: To land in its final ILH, each glider must make a Landing DR (Δ) and roll ≤ 1 on the Final colored dr. If it fails to land in its ILH, it will overshoot the ILH if the white dr is ≥ 4 or fall short of it if the white dr is ≤ 3. The glider misses its ILH long or short by one hex for every number > 1 on its Final Landing colored dr. The colored dr is subject to modification only as follows:

Landing colored drm:

-1	Per each consecutive hex along the Avenue of Approach that is clear of an Obstacle whose topmost height is ≥ one level higher than the Base Level of the ILH. There can be no such Obstacle between the ILH and any of the non-Obstacle hexes for which a drm is claimed. Half-Level Obstacles and SMOKE do not apply.
+1	Per each full level above the Base Level of the ILH of the highest Obstacle that is within the Avenue of Approach.

8.221 OFFBOARD LANDING: Should an Aerial glider's ILH be so close to the edge of the playing area (or actually off the playing area) that it cannot trace five consecutive hexes back along the Hex Grain, the terrain on the edge of the playing board in the opposite direction is used in reverse order to represent the offboard terrain over which the glider made its approach or will land in.

EX: A glider's ILH is 4P10, with an Avenue of Approach of hypothetical "K13" to "O11". The terrain in the preceding five hexes of the offboard Avenue of Approach is equivalent to U8, T8, S9, R9, and Q10 in that order. If the glider were to land now, it would be subject to a -3 drm to the colored dr (-4 [four consecutive hexes in the Avenue of Approach clear of Obstacles a level higher than the Base Level of the ILH] +1 [Level 1 Obstacle in U8] = -3). Now assume that the glider is forced to take Evasive Action and rolls a 6 DR (4 on the colored dr), resulting in a change of two hexes in direction 4 to hypothetical offboard hex P12. P12 is equivalent to the terrain in P8 and its Avenue of Approach is equivalent to the terrain in U6, T6, S7, R7, and Q8 in that order. Its Landing DR is not subject to any colored drm (-1 [one hex clear of obstacle] +1 [Level 1 Obstacle in R7] = 0).



8.23 CRASH dr: Upon landing, each glider is flipped to its landed (green) side and must immediately make a Final dr (Δ) ≤ 6 to avoid a crash. All modifiers are cumulative *[EXC: the drm for vehicles, wrecks, and previously-landed gliders in the landing hex can never exceed +1]*. This dr is modified as follows:

drm	Condition
+1	Not landing in final ILH; Glider is Damaged; night landing; landing during Gusts; landing in shellholes, trench, hedge, marsh, fordable river, sangar, cactus hedge, huts, rice paddy (if landing across a bank hexside), panji (if landing across a Covered hexside), vineyard, Crest Line, or Location that contains a vehicle/wreck/previously-landed glider
+2	Landing in orchard, stone wall, graveyard, bocage, Depression, roadblock, cactus patch, olive grove, palm trees
+3	Landing in woods, building/rubble, bridge, crag, cliff, jungle, bamboo, or in a Blind Hex* as determined by the Avenue of Approach
+4	Landing in a Swamp

* Bocage does not create a Blind Hex for purposes of this rule.

8.231 HEXSIDE drm: All Crash drm based on hexside terrain (i.e., hedges, cliffs, bocage, walls, roadblocks, Crest Lines) are applicable only if the glider crossed that hexside as it entered the landing hex.

8.232 A glider that lands in a Blaze or non-frozen, non-fordable Water Obstacle is eliminated with all its contents *[EXC: if that Water Obstacle contains a bridge (not a foot bridge), the glider lands on it if the bridge parallels the Avenue of Approach]*. A glider that lands in a minefield is subject to minefield attack as if it were an entering truck. The landing of a glider has no effect on other units/terrain/Fortifications in that hex.

8.24 CRASH EFFECT: A glider that crashes with a Final Crash dr of 7 is considered Damaged (8.41). If the Final Crash dr is ≥ 8, the glider and all its contents are eliminated and replaced by an unarmed truck wreck.

8.3 FINAL FIRE & GLIDER COVER: During his DFPh, the DEFENDER may fire any of his units that have a LOS to the landed glider and are capable of Final Fire vs it, using the ★ Vehicle (A7.308) Line as if it were a stopped truck of "0" target size with a cs# of 7 *[EXC: gliders do not burn, and an Immobilization result is considered a Damage result*

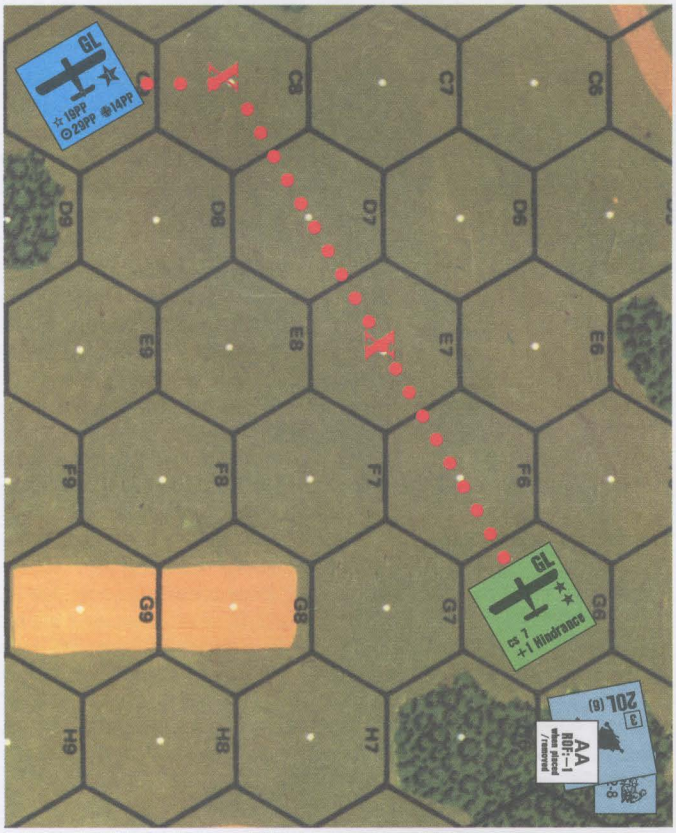
© 2000 Multi-Man Publishing, LLC

instead]; the ★ Aerial DRM does not apply, but Case J might. A landed glider has no TEM of its own but constitutes a LOS Hindrance even if Damaged; if eliminated, it is replaced by an unarmed truck wreck (which creates both a TEM and LOS Hindrance).

8.4 AFPh/CCPh: During the ATTACKER's AFPh, the contents of a glider *[EXC: vehicle/Gun (and its PRC/manning Infantry)]* are placed onboard in the glider's hex for the first time, after resolving the consequences of all Damage results (8.41). Prior to this they were considered "broken" for LOS purposes. At this point the Passengers assume their own morale, FP, and leadership characteristics for the first time, are no longer subject to losses caused by Damage/elimination of the glider, and may possibly advance out of the hex. Such units can fire in that AFPh (but not as Opportunity Fire). Any vehicle/Gun (and its PRC/manning Infantry) aboard can be removed from the glider (into the same hex) only in a subsequent MPh as per the unloading rules in the "Vehicle" and "Gun" sections of U.S. Vehicle Note 51 (LVT4). In CC, a glider is treated as an Immobile, unarmed truck (8.3).

8.41 DAMAGE: An already-Damaged Aerial glider that is Damaged again is eliminated with all aboard (even during landing, in which case no wreck is placed). All SW/Guns in a Damaged glider are considered to have malfunctioned and are subject to normal repair (or eliminated if incapable of repair). Any vehicle in a Damaged glider is Bogged and can subsequently become Mired/Immobilized while attempting to exit the glider. A Damaged glider suffers Casualty Reduction to one or more of its Passengers (dependent on Random Selection dr), with all other Passengers taking a NMC *[EXC to both: inherent AFV crew]*.

8.5 RE-ENTRY: The contents of a glider that lands offboard may reenter the gameboard as per 9.41. The contents of an offboard glider which remain out of play count towards Casualty Victory Conditions (A26.211-.212) only if eliminated by the landing.



EX: The glider contains a 7-4-7, 8-1, and a dm MMG. It is shown in its ILH in 4C9, indicating an Avenue of Approach of D8-H6. The FlaK Gun in AA mode in H5, however, has Defensive First Fired at it with a 6 Original DR (1 colored dr to retain its Multiple ROF), resulting in a 7 Final DR (due to the glider's +1 Aerial DRM) on the 6 FP column of the IFT. As a consequence, the glider must take Evasive Action (8.21) and rolls a 2 Random Location DR. The glider is placed in a new ILH in C8. Because the glider is now in a new ILH, the FlaK Gun can use its retained ROF to fire on it again and this time rolls an Original 5 DR (retaining ROF again) which becomes a Final DR of 6, Damaging the glider and again forcing Evasive Action after all other Defensive First Fire vs it in that ILH is resolved. The new Random Location DR is 4 (2 on the colored dr), making E7 its new ILH. The glider draws no additional Defensive First Fire in E7 so it attempts to land there. The Original Landing DR (8.22) is 6 (4 on the colored dr). The colored dr is modified by -1 (-2 [for two consecutive hexes clear of an Obstacle between E7 and H5] and +1 [level of closest Obstacle along the Avenue of Approach] = -1) resulting in a colored dr of 3. This, plus the white 2 dr causes the glider to land in G6—two hexes short of its final ILH (E7). The Crash dr is modified by +5 (+1 for being Damaged, plus +1 for not landing in final ILH, plus +3 for landing in a Blind Hex) so an Original Landing dr ≥ 2 will result in a crash. The glider rolls an Original 1, which is modified to a Final 6 Crash dr, resulting in its safe landing. The landed glider is not fired upon during Final Fire, so in its AFPh the 7-4-7 (determined by Random Selection) suffers Casualty Reduction. The resulting 3-3-7 HS and leader each take a NMC. There would have been no LLMC to the broken HS had the leader been mortally wounded because he has no leadership characteristics until actually placed on the board in counter form in the AFPh.

9. PARATROOP LANDINGS



9.1 AIR DROP: Paratroops can be dropped in a scenario only if the weather is Clear, Mud, Mist, Gusty, or Snow (not Falling Snow). Wind Direction is established (B25.64) even if there is no wind. Paratroops entering play via air drop are virtually helpless during and immediately after their descent[23], and consequently forfeit their normal capabilities during the Player Turn in which they are dropped *[EXC: CCPh]*. Paratroops may not fire, move, advance, direct/assist/affect other units until they have removed their parachutes during their APh (9.6). Until then, each paratroop unit remains offboard and is represented solely by the parachute counter with the ID that matches the Cloaking Box it is in. For DYO purchase of 1/2" and 5/8" parachutes see H1.204.



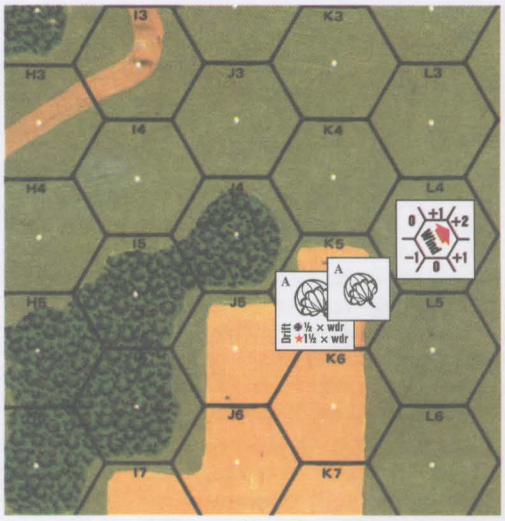
9.11 WINGS & STICKS: All paratroop forces to be dropped in the current Player Turn are divided into groups of five Sticks called Wings. Each Stick is composed of one 5/8" parachute counter and up to one 1/2" parachute counter. Only one Wing in a Player Turn's air drop can be composed of less than five Sticks. Each Stick can consist of a maximum of one squad (or its equivalent), one SMC, and one separate SW. All Personnel in a Stick are represented by, and dropped as, an inherent part of that parachute, and have their identity as a component part of that parachute secretly recorded. Use of the Cloaking Counter Display Boxes on the Chapter E Divider is suggested to avoid written records. Air-dropped Personnel and weapons do not take their actual counter form until their parachute is removed from play; consequently, leaders have no leadership capabilities until they appear during their APh (9.6). All SW (including dm 76-82mm mortars) can be dropped by parachute, but must be dm if possible. A SW, although part of its Stick, is represented by a 1/2" parachute which is placed onboard above the Stick's 5/8" parachute until Drift is resolved. Each SW remains in the Cloaking Box that matches its parachute ID until Recovered. A parachute serves only to mask the identity and provide a common Morale Level for its "occupants"; it does not render them concealed in any way. Air-dropped pieces cannot enter play concealed/Cloaked (an exception to A12.12) except possibly as a result of an offboard landing (9.41).

9.12 DROP POINT: Prior to scenario setup, each Wing secretly predesignates a Drop Point in the form of a whole hex somewhere on the playing surface. Each Drop Point must be at least five hexes from all other predesignated Drop Points. Following setup, during the RPh of their entry Player Turn, the ATTACKER makes a dr (Δ) for each Wing. If the dr is a 1-3 the predesignated Drop Point is used. If the dr is a 4-6, the final Drop Point is determined by Random Selection to determine the board (including the originally chosen board, and rerolling any tie dr) and the Drift Placement procedure (3.75) is used to determine the Drop Point on or near that board. With the Drop Points of all Wings thus determined, each Wing places a Stick on the Drop Point, and then places two Sticks on each side of that Drop Point along the same Hex Grain so that

© 2000 Multi-Man Publishing, LLC

there is an uninterrupted line of parachutes five hexes long for each Wing with the Drop Point in the center of that line.

9.2 DRIFT: All Sticks are subject to drift during the MPh after all ground units have completed their MPh even if there is no wind. This is done by making a Random Location DR (here termed a Drift DR) for each parachute *[EXC: Germans halve the white dr (FRU) while Russians increase it by 50% (FRD), prior to any Wind adjustment]*.[24] All Personnel in the same Stick drift together in the same parachute. Each Aerial SW takes its own Drift DR and drifts separately *[EXC: British paratroopers retain possession of (i.e., drop with) their LMG, light mortar, and radio counters, while U.S. paratroopers retain their light mortars; they are therefore placed in the Cloaking Box with the possessing Personnel]*. Each parachute's drift is then adjusted for wind (if any) direction and strength by being moved two hexes directly downwind for a Mild Breeze, three hexes thusly during Gusts, or four hexes thusly during Heavy Winds.



EX: The Drop Point of U.S. Stick "A" is 4K5. A Mild Breeze is blowing northeast as shown. The Drift DR of the Personnel in Stick "A" was 8 (5 on the colored dr), which results in the $^5/_8$" parachute drifting to H6. The Drift DR of Stick "A's" SW was 8 (6 on the colored dr), resulting in the $^1/_2$" parachute drifting to I4. The Mild Breeze then causes both to drift two hexes farther to the northeast, into J5 and K3 respectively.



9.3 DEFENSIVE FIRST FIRE: After the Drift of all parachutes has been resolved, the DEFENDER may use Defensive First Fire and Subsequent First Fire vs them—even if they have drifted offboard (9.41). Aerial paratroops are subject to Hazardous Movement DRM, and can claim neither Height Advantage, TEM, concealment (9.11), nor any Hindrance other than LV/SMOKE (E.6). Hazardous Movement DRM even apply to an attack (only) on an Aerial SW in an attempt to destroy/malfunction it (A9.74) although such attacks will usually be caused by mistaken identity due to Random Selection. Although all Aerial paratroops are considered moving simultaneously, First Fire/Subsequent First Fire vs them can affect the contents of only one (barring a Random Selection tie dr) Aerial parachute regardless of the number of them in a hex. No Aerial target can be attacked twice in the same hex by the same firer (7.51), nor does fire vs Aerial targets leave Residual FP. While represented by a parachute counter, paratroopers do not take PTC, and are not subject to Pin/Heat of Battle results.

EX: A crew, 3-4-7 HS, and 9-1 compose Stick "A". A 4-6-7 two hexes away fires at the descending parachute with four FP and rolls an Original 4 DR, resulting in a K/2. Random Selection (due to a tie dr) results in the crew and the leader (by failing its Wound Severity dr) being eliminated; the HS takes a 2MC and passes. The leader and crew pieces are removed from the A Cloaking Box and four victory Points are recorded on the Casualty Track of the Scenario Aid Card. When the parachute is removed during the APh, it will be exchanged for the Good Order 3-4-7 HS. The HS is not affected by the elimination of the leader.

9.31 LOS: A unit has a LOS (7.25) to Aerial paratroops unless it is in a Blind Hex created by an adjacent full-level obstacle between it and the parachute, or is in a pillbox, or has insufficient NVR, or encounters a combination of SMOKE/LV/LOS Hindrances ≥ 6.

9.32 ELIGIBLE FIRERS & SNIPERS: Only Small Arms and Light AA (7.51) weapons can Defensive First Fire/Subsequent First Fire vs Aerial paratroops. No To Hit DR, Sniper attack, or Fire Lane is allowed vs Aerial targets. Paratroop/glider snipers may not attack until the *Game* Turn their side starts with Infantry onboard (not in Aerial status above it).

9.33 RESOLUTION: When a Stick takes a MC/TC it does so for all of its Personnel contents, and they all pass or fail based on a single MC DR regardless of the number of component units (or their morale) represented therein. The entire Stick checks morale based on a Morale Level of 7—whether broken or not. Represent a broken Stick by flipping the contents of the appropriate Cloaking Box to their broken sides and placing a DM counter in the Cloaking Box. If a Stick suffers Casualty Reduction/ELR-failure, Random Selection is used to determine which inherent crew/HS/SMC has been eliminated/wounded/replaced; any remaining components of that Stick pass or fail their MC uniformly, using the 7 Morale Level of their parachute.

9.4 LANDING: After all Defensive/Subsequent First Fire vs Aerial paratroops has ended, unbroken Aerial paratroops (not separate SW) may move one hex in any direction *[EXC: Germans[24]]*. All parachutes then land at the Base Level of their current hex at which point $^5/_8$" parachutes may become Known enemy units. *[EXC: If that hex contains a bridge (not a foot bridge), it lands on the bridge on a dr of 1 or 2 (dr 1 if a one-lane bridge); otherwise it lands IN the hex. There is a -1 drm to this dr if the unit is unbroken; for Interior Building hexes, see 9.42.]*. Units/SW landing in a Blaze, non-frozen Water Obstacle, or deep/flooded stream are eliminated. All $^1/_2$" parachutes are then flipped over; thereafter neither player may check the identity of that parachute until it has been Recovered.

9.41 OFFBOARD LANDING: If a unit/weapon lands offboard, it is not removed from play unless eliminated (9.42). The reversed-terrain-order technique of 8.221 is used to determine which units are broken/eliminated as a result of their offboard landing and such units count towards Casualty Victory conditions only if eliminated. Temporarily butt any unused board up to the board edge the unit drifted off of to measure the distance (in hexes) it landed off the playing area. An unbroken unit may move one offboard hex per friendly MPh (regardless of terrain) until it reaches the "live" board edge where it must enter normally in its next MPh/APh. The offboard unit can advance in its APh only to enter the "live" board. Broken offboard units may rally normally but may not move/rout until rallied. Offboard SW/Guns may be Recovered normally, but only by units that land offboard.

9.42 INJURIES: A $^5/_8$" parachute landing in a woods, forest-road, crag, building, shallow stream, cactus hedge, cactus patch, olive grove, Jungle (see G2.213), Bamboo, Swamp (see G7.32), Irrigated Rice Paddies, or marsh hex[25] must take an immediate NMC (Δ) using the 7 Morale Level of their parachute (9.33). A $^1/_2$" parachute must also take an immediate NMC using a Morale Level of 7 when it lands in dense Jungle (see G2.213) or swamp (see G7.32); see G9.47 for panjis. One landing in an Interior Building Hex takes a NMC, then moves one hex directly downwind to another building hex where it takes another NMC, and so on until its contents are either eliminated or it reaches a non-Interior Building Hex, at the Base Level of which it lands. All other $^5/_8$" parachutes must take an immediate NTC (Δ) upon landing, still using its 7 Morale even if broken. A Stick that fails its NTC automatically Deploys into its component HS *[EXC: If a Stick contains a SMC/crew, those units are revealed at this time with/in place of any component HS]*; one HS (and perhaps any accompanying SMC, determined by Random Selection if necessary) is moved to the next hex directly downwind, but need not take any further landing MC/TC—although it is eliminated if placed in a Blaze, non-frozen Water Obstacle, or flooded stream. The level of Landing MC/TC required is increased by one (i.e., 1MC/1TC) if the unit lands during a Mild Breeze, or by two if it lands during a Heavy Wind/Gust.



9.43 FINAL FIRE: After all landing DR have been resolved, paratroops are subject to Final Fire using normal LOS and fire rules vs ground targets. Any paratroops in the same Location with enemy Infantry must be attacked by those units using TPBF

© 2000 Multi-Man Publishing, LLC

(A8.312), even if the paratroops are already broken/Disrupted; mark the survivors with a CC counter. Broken DEFENDER (only) units may rout from the hex during the RtPh because they have not yet engaged in CC.

9.5 AFPh/RtPh: In the Player Turn they land Paratroops may not attack or rout, and are not subject to rout rules (including Surrender/Failure to Rout).

9.6 APh: Paratroops may not advance during the APh. Instead, all *[EXC: those that have already Deployed; 9.42]* just-dropped $^{5}/_{8}$" parachutes are removed, and their component units are placed onboard with their normal capabilities restored. Prior to this, a Stick's inherent leader who was eliminated/broken did not cause any LLMC/LLTC; and all its contents were considered "broken" for LOS purposes.

9.7 PRE-1942 GERMAN PARADROPS:[26] German paradrops prior to 1942 are made with Sticks containing partially-armed 5-4-8/2-3-8/2-2-8 squads/HS/crews. This partially-armed state is shown by placing any unused systems counter (Acquisition counters are recommended if not otherwise needed) over such a MMC. This systems counter gives the MMC a Strength Factor of 2-2-8 {8} if a squad (with no Assault/Spraying fire or smoke grenade capabilities), 1-2-8 {7} if a HS, or 1-2-8 {8} if a crew {broken morale level given in brackets}. However, at the end of every friendly MPh in which a Good Order partially-armed German MMC moves to another hex it may attempt to locate an arms canister by making a dr (Δ) ≤ 1. This dr is subject to a -1 drm for every different hex entered during that MPh and a +1 drm if CX. If the MMC succeeds, its systems counter is removed and it is treated as a normal MMC thereafter. For Battlefield Integrity purposes, German paratroops dropped in this manner retain their fully-armed BPV.

10. AMMO VEHICLES

10.1 AMMO VEHICLES: If a vehicle has a B# (D3.71), a SSR may specify that it receives an Ammo Vehicle, in which case the following rules apply.

10.11 SELECTION: If the SSR or Chapter H Vehicle Note does not specify a particular (type of) vehicle to be used as the Ammo Vehicle, any vehicle having ≥ 15 PP Passenger capacity (or ≥ 20 PP if the armament with the B# is ≥ 100mm) is used. For DYO cost see H1.49.



10.12 AMMO PORTAGE: An Ammo Vehicle is signified by the placement of an Ammo Supply counter on it. The Ammo Supply counter reduces the usable Passenger capacity of its vehicle to zero PP, and may not be removed from it unless Immobile (10.4) or Depleted (10.3).

10.2 BENEFIT: If the correct Ammo vehicle is in an Accessible Location to (or in the same Location as) the proper CE armed vehicle when it fires, its B# is treated as a normal B12. One Ammo Vehicle can be used to supply no more than two identically (in terms of Gun Caliber Size and Barrel Length) armed vehicles at any one time—assuming that the Ammo Vehicle has an Accessible/same-Location status to both.

10.21 RESTRICTIONS: Once an Ammo Vehicle's B# benefit is used for Prep Fire, it may not expend MP in the subsequent MPh. (Mark it with a Prep Fire counter to indicate such.) An Ammo Vehicle's B# benefit cannot be used in Bounding (First) Fire, but it can otherwise be used in the AFPh, provided 10.2 is adhered to.



10.3 REPLENISHMENT: When a vehicle with a B# suffers Low Ammo Depletion (D3.71), its ammo supply can be Replenished after it and its Ammo Vehicle have been TI in the same or Accessible Location(s) for a number of complete Game Turns (i.e., two Player Turns, RPh to CCPh inclusive) as per the Ammo Replenishment Table, which is reproduced on the back of each Ammo counter:

B#	# of Complete Game Turns to Replenish
≤ 9	1
10	2
11	3

The armed vehicle must remain CE during Replenishment. The TI counter is removed (and the armed vehicle may function normally) when the Replenishment period has been successfully completed, or if for any reason the vehicle crew loses CE status, or either/both vehicles expend MP, fire any weapon(s), or are attacked in CC. *[EXC: If the TI counter is removed prior to the completion of Replenishment, that Game Turn does not count toward Replenishment and the armed vehicle must use its B# if it fires that weapon.]* One Ammo Vehicle can Replenish up to two identically armed (10.2) vehicles simultaneously. Upon the successful completion of each vehicle's Replenishment period, the Ammo Vehicle must make an Ammunition DR. If it rolls an Original 12, the Ammo Vehicle has run out of ammunition, the Ammo Supply counter is removed, and the vehicle assumes its normal portage capabilities.

10.31 SPECIAL AMMO: All Ammo Types depleted due to normal Depletion (C8.9) are Replenished by an Ammo Vehicle but only B# vehicles with Low Ammo status can be Replenished.

10.4 IMMOBILIZATION/LOSS: An unarmored Ammo Vehicle that becomes Immobilized is not flipped over to its Wreck side; it is instead marked with an Immobilized counter so it can continue to function in its Ammo Supply role. An Ammo Vehicle can offload to form an Ammo Dump in the same Location, or an Immobile Ammo Vehicle can transfer its ammo to another Accessible/same-Location vehicle (that qualifies as per 10.11) by using the Replenishment procedure for four Game Turns (10.3). When the TI counter is removed at the end of the CCPh, the Ammo Supply counter is placed in the other vehicle or Location (which then becomes the new Ammo Vehicle—or Ammo Dump; 10.6), and the original vehicle is flipped to its Wreck side if Immobilized. A vehicle cannot expend MP during the turn in which it becomes (or ceases to be) an Ammo Vehicle.

10.5 BURNING WRECK: If an Ammo Vehicle becomes a Burning Wreck (or would become one if it had a Wreck mode) it immediately explodes (removing its own wreck) as if it were a detonated Goliath *[EXC: it has no designated target and no X#]*; see German Vehicle Note 93.

10.6 AMMO DUMP: A SSR or DYO purchase (H1.6) can create an immobile Ammo Dump in the form of an Ammo Supply counter. All rules pertaining to Ammo vehicles apply to the Ammo counter as a stationary Location.

11. CONVOYS

11.1 COMPOSITION: A Convoy consists of two or more motorized vehicle counters placed contiguously one per hex such that a continuous "line" is formed without a Gap between the "lead" and "rear" vehicles. However, the random occurrence of such relative positions during the course of a scenario does not invoke Convoy rules, nor can a Convoy be voluntarily created during a scenario. See also 11.8.

11.2 MOVEMENT: A Convoy is considered a "multi-hex stack" and, as such, its components move together in Impulses using the principles of AFV platoon movement (D14.2-.22). A Convoy vehicle must pay one extra MP (as if towing a Gun) per hex entered (or per hexside if using VBM). Furthermore, the minimum road rate for a Convoy vehicle is one MP, rather than $^{1}/_{2}$ MP. Thus the minimum per-hex *road* cost for a Convoy vehicle is two MP. If a Convoy vehicle is actually towing a Gun, the total extra movement cost per hex is still one MP—not two. Once a Convoy expends a Stop MP, neither it nor any of its vehicles may expend a Start MP in that MPh. See also 11.6-.7. A vehicle may not conduct an Overrun while part of a Convoy.

© 2000 Multi-Man Publishing, LLC

11.21 GAPS: A Gap appearing in a Convoy line (due to elimination/Immobilization/bog/leaving the Convoy [11.25-.254]) causes the original Convoy to become two separate Convoys *[EXC: a "new Convoy" that contains only one vehicle; 11.1]*, each of which can now move (and expend MP) independently of the other. However, in its MPh, if a Convoy has already completed one or more Impulses *before* a Gap appears in it, then the MPh of the newly-created "lead" Convoy must be completed before the "rear" Convoy can continue its MPh. Once a Convoy begins its MPh, no other ATTACKER unit can conduct its MPh until *all* elements of that original Convoy have completed their MPh.

EX: A roadbound Convoy, consisting of three trucks followed by five halftracks, expends two MP and thusly completes one Impulse. Defensive First Fire now eliminates the last truck; the resulting Gap creates a new "lead" Convoy of two trucks and behind it a new "rear" Convoy of five halftracks. Since all of these vehicles have already completed at least one Impulse in the current MPh, the ATTACKER must finish moving the vehicles of the "lead" Convoy before any of his other units can move. After the vehicles of the lead Convoy finish their MPh, the ATTACKER then, with the same options, completes the "rear" Convoy's MPh. Should the rear Convoy lose its middle haftrack, thus creating for the next Impulse new lead and rear Convoys of two halftracks apiece, this newest lead Convoy must also finish its MPh before the newest rear Convoy can.

11.22 REVERSE: A Convoy vehicle may not use Reverse movement. Furthermore, a Convoy vehicle may not, in the same MPh, re-enter its *last* previously-occupied hex.

EX: During an Impulse a Convoy vehicle exits 5Y6 by moving into Z6. For the remainder of the current MPh it cannot re-enter Y6 until after it has exited Z6. The best way for it to re-enter Y6 is via Z5 or Y7. (Note that once in Z5 or Y7, the vehicle cannot then "directly" re-enter Z6 in that MPh.)

11.23 ENTERING VEHICLE/WRECK LOCATION: A Convoy vehicle entering a Location that contains one or more vehicle/wrecks must pay *twice* the D2.14-calculated MP cost for doing so. Furthermore, a vehicle entering a Location that contains a Convoy vehicle must also pay twice the D2.14-calculated cost. Thus a Convoy vehicle entering a Location that contains another Convoy vehicle must pay four times the D2.14-calculated cost.

EX: A Convoy truck must expend six MP to enter, via a road, an otherwise Open Ground Location that contains a wreck (2 [Convoy road entry MP] + {2 [entering wreck Location; D2.14] × 2 [Convoy penalty]} = 6). If that Location does not contain a road, the truck must pay seven MP to enter it (5 + {1 × 2} = 7). If that Location contains no road, and contains another Convoy vehicle instead of a wreck, the truck must pay nine MP to enter it (5 + {1 × 4} = 9).

11.24 MOTION: A Convoy may use Motion status as if one unit. However, a DEFENDER Motion attempt (D2.401) may not be made by a Convoy vehicle, nor by the Convoy as a unit.

11.25 NON-CONVOY MOVEMENT: A Convoy vehicle wishing to use non-Convoy movement may voluntarily (but within certain restrictions) leave its present Convoy. The ATTACKER must declare, *before* an Impulse begins (but after all prior Defensive First Fire has been resolved), that the vehicle will use non-Convoy movement, and that vehicle must then (if it can; see 11.251-.252) immediately expend MP (and can be Defensive First Fired on) to move/use Bounding First Fire, etc., until it completes its MPh. After all vehicles that wished to do so have used this procedure to leave that Convoy, that Convoy's own Impulse then begins.

11.251 A vehicle may leave its Convoy (whether to use non-Convoy movement [11.25], or to form a new Convoy [11.254]) only if one or more of the following conditions apply:

1) it/its PRC currently has a LOS to a Known enemy ground unit, or to a friendly same-Convoy vehicle (including itself) that was either attacked (including Residual FP, but excluding a minefield attack that did not eliminate/immobilize it) at the end of the Convoy's preceding Impulse (even if that Impulse ended its previous MPh) or eliminated/immobilized during the current MPh, or;
2) it is an AFV with a radio, and the Inherent crew of another non-shocked/non-stunned friendly AFV (not necessarily in a Convoy) with a radio has a LOS as per condition #1, or;
3) it is Recalled (11.253).

11.252 RADIOLESS AFV: A radioless AFV platoon (D14.2) leaves a Convoy to use non-Convoy movement as a single entity, with all its AFV completing their MPh using platoon movement. A radioless AFV that wishes to thusly use non-Convoy movement must pass a D14.23-mandated NTC only if it is the start of its MPh and it also wishes to leave a radioless AFV platoon. A radioless AFV may not voluntarily leave its AFV platoon after it has begun its MPh (D14.23), even if in a Convoy.

11.253 RECALL: The Recall of a Convoy vehicle forces it to leave its Convoy at the start of its next Impulse as per 11.25.

11.254 NEW CONVOY: A Convoy vehicle may also leave its parent Convoy *during* an Impulse by moving (or expending a Stop MP) so as to create a Gap, thus forming a new "rear" Convoy with itself as the "lead" vehicle. 11.251 still applies to such a move/expenditure. Once the Gap has been voluntarily created, the method and order of movement given in 11.21 apply to both new Convoys.

11.255 MP expended to leave a Convoy do not apply to the original Convoy's total MP expenditure, nor do they allow Defensive First Fire vs the original Convoy. A lone vehicle separated from its Convoy by a Gap is no longer in Convoy status (11.1).

11.26 COMBINING: Two or more Convoys can combine into one, but the highest current MP expenditure then immediately applies to all vehicles in the new Convoy.

11.3 PP CAPACITY: The Passenger capacity of a vehicle is assumed to be 0 PP while it is part of a Convoy, and remains 0 PP even if it leaves the Convoy *[EXC: if the vehicle sets up actually towing a Gun, it is allowed to also carry that Gun's crew and ammo]*.

11.4 CONVOY HINDRANCE: A Convoy vehicle (not Column) *does* create a LOS Hindrance if it would be subject to TH Case J were it to be fired on by any ordnance at that moment.

11.5 COLUMN: A Column consists of two or more contiguous *hexes* that contain Infantry/Cavalry/Wagon counters placed such that a continuous line of units one hex wide is formed. Normal stacking applies in each such hex. All units in a Column must remain adjacent to the same unit(s) they are presently adjacent to, and each unit/stack in a Column *[EXC: the "lead" unit/stack]* may enter only that hex just exited by the one "ahead" of it when moving/advancing. A Column unit may not conduct (or even attempt to conduct) any activity other than moving/advancing, being affected by attacks, "?" gain/loss (and thus being possibly treated as a Known enemy unit), and Disbanding (11.53). (Such prohibited activities include Deploying, SW Recovery, SMOKE grenade placement, Searching, SMC Overrun, etc.) The random occurrence of units in Column position during the course of a scenario does not invoke Column rules, nor can a Column be voluntarily created during a scenario.

11.51 SW: All SW being carried in a Column must be dm if possible unless being transported by wagons.

11.52 MOVEMENT: A Column uses Impulses to move/advance as a "multi-hex stack", and does so at the MF rate of the "slowest" unit in that Column. A Column unit is considered to be continuously engaging in Hazardous Movement (A4.62). Road bonus (B3.4) can apply normally to the movement of a Column, as can even a single leader's MF bonus (since the Column is treated as a "multi-hex stack"). Gallop/Double Time can be used in a Column, but Minimum/Assault/Bypass/Dash/Human-Wave Movement cannot be.

11.521 TERRAIN: A Column unit may not enter a woods/building Location *[EXC: via a Path/road hexside; Factory]*, nor may it expend MF to move beneath a Fortification counter. A Column unit can never claim shellhole TEM.

11.522 DETECTION: When a Column unit enters a Location where Detection (A12.15) will occur, the DEFENDER does not reveal his unit until that Column has completed its Impulse. When he does reveal it, only the ATTACKER unit in the DEFENDER's Location—not the rest

© 2000 Multi-Man Publishing, LLC

of the Column—is forced to return to its previously-exited hex, where Overstacking might then apply.

11.523 COMBINING: Infantry/Cavalry/Wagon(s) may join a Column only if they are unpinned and in Good Order, and only if the Column foregoes its entire MPh so they can assume Column position. The act of joining must be declared by the ATTACKER, and each unit uses Hazardous Movement as it joins the Column.

11.53 DISBANDMENT: Column units may not "leave" their Column, nor will Gaps appear in a Column. Columns are checked for possible Disbandment at the times given in 11.531-.532. If at that time any Column unit has either been attacked (even by a Sniper, but see 11.534 for minefields) or has a LOS to a Known enemy ground unit, *that* Column instantly Disbands for the duration of the scenario. Whenever a Column Disbands, its units are instantly freed from the Hazardous Movement DRM *[EXC: a Column may voluntarily "initiate" Disbandment by expending a MF to do so (and declaring Disbandment), but does not actually Disband until after all Defensive First Fire allowed by that MF expenditure]*; see also 11.535-.536. A Column can Disband only if it is (at least partially; 11.7) onboard.

11.531 MPh: After all (if any) possible Defensive First Fire has been conducted vs *any* unit that has just expended MF/MP, all ATTACKER/DEFENDER Columns are checked for Disbandment as per 11.53. When an ATTACKER Column Disbands during the MPh, its units' MPh immediately ends—even if they had not yet begun to move.

11.532 OTHER PHASES: In other than a MPh, Column Disbandment is checked for after each attack (including CC) is resolved, as each routing unit expends MF, and as each unit advances.

11.533 OBA/AERIAL ATTACKS: Whenever a Column unit is within six hexes of a Location that is either attacked by an aircraft or in a HE OBA Blast Area, that Column immediately Disbands. If a Location is within six hexes of a Column unit *at the time* OBA-fired WP is placed in that Location, that Column immediately Disbands. In both cases, Disbandment occurs regardless of LOS from the Column unit to the Blast Area Location.

11.534 MINES & WIRE: For Disbandment purposes, a minefield is considered to attack a Column unit only if it pins/breaks/Reduces/eliminates/immobilizes it. A Column Disbands if any of its units enter a Location and reveal hidden wire therein.

11.535 WAGON: Whenever a Column Disbands, all wagons therein go (or remain) in Motion. If this occurs during a friendly MPh, those wagons thus immediately end their MPh (11.531) in Motion.

11.536 PIN: Whenever a DEFENDER Column Disbands, its units all become pinned *[EXC: wagons (11.535); units immune to Pin results]*.

11.54 CONCEALMENT: Column units may set up concealed as per the normal rules for doing so. However, a Column unit that has lost its "?" cannot regain it. Moreover, all units in a Column lose their "?" when that Column Disbands, regardless of LOS and the presence of and range to enemy units.

11.6 STRAYING: At night, when a Convoy/Column begins its MPh only its "lead" unit is capable of Straying (even if a Gap *involuntarily* appears in that Convoy); if that "lead" unit does Stray, those units behind it in that Convoy/Column will simply follow it. However, whenever a Convoy unit *voluntarily* leaves its Convoy (to use non-Convoy movement or to become the "lead" vehicle in a new Convoy), it is then capable of Straying as per the normal rules for doing so, even though it had already started its MPh.

11.7 PARTIAL ENTRY: If a Convoy or Column still has one or more units offboard when its MPh/APh ends, those units retain Convoy/Column status and can enter the playing area in their next MPh/APh. *[EXC: If a partially-offboard Column Disbands, its offboard units set up again and enter in their next allowed phase(s) without using Column status. The normal prohibition against subsequent-turn entry is voided for this situation.]*

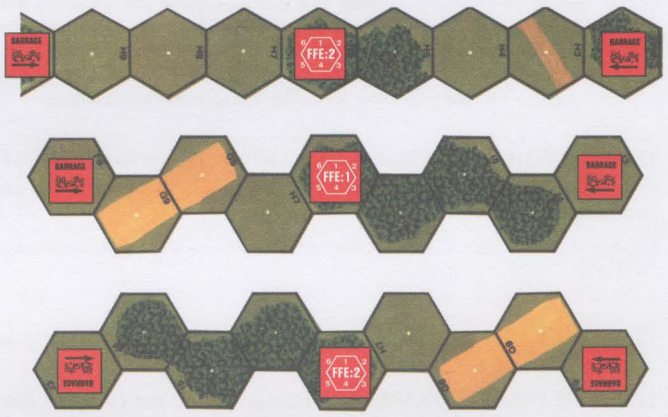
11.8 APPLICATION: A Convoy/Column is used only for scenario setup/entry/Victory Conditions. Convoy/Column units receive no special benefits, but neither do they pay any special penalties, other than those listed/referred to above.

12. BARRAGE

12.1 A Barrage is a type of OBA Fire Mission (C1.7), and is available to a player if he is allowed one or more Pre-Registered hexes.[27] A Barrage uses all the normal rules for OBA except as modified below. A rocket OBA battery cannot be used for any type of Barrage.



12.11 CONFIGURATION: A Barrage FFE Blast Area is one hex wide by nine hexes long, and must lie along a Hex Grain or Alternate Hex Grain. Thus there are nine possible Barrage alignments per Pre-Registered hex. A Barrage counter is placed four hexes away from the FFE counter in each of the two *outermost* hexes of the Blast Area, with the arrow on each Barrage counter aligned to point "through" the other Blast Area hexes to that FFE counter.



12.2 SETUP: Prior to setup, all Pre-Registered hexes are recorded on paper normally. However, for each Pre-Registered hex that the player wishes to also have available for use with a Barrage, he must at this time also secretly record two Barrage Blast Area hexes that are adjacent to that Pre-Registered hex but not adjacent to each other. These two Blast Area hexes set the Hex Grain of all Barrages from that OBA battery, and make that Pre-Registered hex "Barrage-capable". *All Pre-Registered hexes assigned a Barrage option from the same OBA battery must use parallel (Alternate) Hex Grains.*

EX: 4H6 is a Pre-Registered hex. Its owning player decides to give it the option of also being used for a Barrage between hexes H2 and H10 inclusive, so where he has recorded "4H6" he also writes "(Barrage: H5-H7)". Now assume the player is also allowed a second Pre-Registered hex, for which he chooses C6. If he decides to make C6 Barrage-capable too, the only Hex Grain he can record for it is C5-C7 (i.e., the Hex Grain parallel to that of his other Barrage-capable Pre-Registered hex).

[If, instead of the H5-H7 Hex Grain, the player had chosen to designate for his first Barrage the Alternate Hex Grain that comprises J3, J4, I5, I6, H6 (the Pre-Registered hex), H7, G8, G9, and F9, he would have written "(Barrage: I6-H7)"—and he would have had to record "(Barrage: D5-C7)" for his second Pre-Registered hex.]

12.3 PLACEMENT: A FFE:1 counter being used for a Barrage can only be *directly placed* (C1.731; i.e., a SR may never be flipped over to become a Barrage FFE), and only in a Barrage-capable Pre-Registered hex. If a player wishes to use a Barrage Fire Mission, he must place the two Barrage counters onboard at the same time he places the FFE:1.

12.31 ALIGNMENT: A Barrage, regardless of where it actually lands, must *always* have its Hex Grain parallel to that of its Pre-Registered hex(es).

EX: Continuing the first part of the previous example, when the Barrage FFE:1 counter is placed in H6 one Barrage counter will be placed in H2 and one in H10, with the arrow of each pointing through H3 and H9 respectively; thus the Blast Area of this Barrage will consist of the nine hexes H2 through H10 inclusive. However, assume that when the player directly places the FFE:1 counter in H6 it errors to D4.

© 2000 Multi-Man Publishing, LLC

The Barrage will now be centered on D4, and the only Hex Grain alignment it can have is the one parallel to that of H6 (and C6). Thus the Barrage counters are placed in D0 and D8, with their arrows pointing through D1 and D7 respectively.

[If he were instead using for his Barrage the Alternate Hex Grain that comprises J3, J4, I5, I6, H6 (the Pre-Registered hex), H7, G8, G9, and F9, when the FFE:1 counter were placed accurately in H6 one Barrage counter would then be placed in J3 with its arrow pointing through J4, and the other would be placed in F9 with its arrow pointing through G9.]

12.4 CORRECTING: An onboard Barrage (i.e., a FFE:1 or FFE:2 counter, and its associated Barrage counters) can be Corrected only onto or adjacent to (i.e., by placing the AR [as per C1.4] in or adjacent to) a Barrage-capable Pre-Registered hex *[EXC: when the FFE counter is in or adjacent to a Pre-Registered hex, it cannot be Corrected to another hex that is adjacent to that same Pre-Registered hex]*. 12.31 still applies to a Corrected Barrage.

EX: Continuing the first part of the previous example with the FFE counter in D4 and the Barrage counters in D0 and D8, assume that in the subsequent allowable phase the player wishes to Correct his onboard Barrage FFE. He can Correct the FFE counter in D4 only to or adjacent to a Barrage-capable Pre-Registered hex, and can Correct it no farther than three hexes (C1.4). Therefore, he can place his AR only in or adjacent to C6 or in G6. If the player also had another Barrage-capable Pre-Registered hex that was too distant to allow him to Correct the FFE counter to it, he could use it for a Barrage only by calling in a new Fire Mission there.

12.5 RESOLUTION: A Barrage FFE is resolved using the IFT FP column to the left of the column that battery uses for a normal HE Concentration FFE.

EX: 80+mm OBA uses 12 FP in a Barrage, 100+mm uses 16 FP, 150+mm uses 24 FP, etc.

12.51 SMOKE: A Barrage *[EXC: not Creeping Barrage]* FFE may be used to place SMOKE.

12.52 FFE LOS HINDRANCE: A Barrage *[EXC: not Creeping Barrage]* FFE causes a LOS Hindrance as per C1.57.

12.6 CONVERSION: A Barrage-capable Pre-Registered hex *[EXC: one designated for use with a Creeping Barrage; 12.7]* may also be used for normal Concentration/Harassing Fire Missions, although converting from any one type of Mission to another can only be done "between" Missions (C1.7)

12.7 CREEPING BARRAGE: a Creeping Barrage[28] is a type of Barrage that automatically Corrects in each Scenario Attacker PFPh (and possibly DFPh) without using an Observer or radio. A Creeping Barrage may only be used by a Scenario Attacker. All Barrage rules apply to a Creeping Barrage unless specified otherwise. For DYO cost see H1.5.

12.71 SETUP: Prior to all setup in a scenario that grants a Creeping Barrage to the Scenario Attacker, that player secretly records *one Barrage-capable Pre-Registered hex* (12.2) whose Hex Grain (or Alternate Hex Grain) alignment must parallel the Friendly Board Edge that the majority of his units will enter along on Turn 1, and into which his Turn 1 Creeping Barrage will be directly placed (C1.731). He also secretly records *an Aiming Hex*, which is any hex that lies along both a(n) (Alternate) Hex Grain of the Pre-Registered hex and the board edge *opposite* the above mentioned Friendly Board Edge. This (Alternate) Hex Grain, from the Pre-Registered hex to the Aiming Hex (inclusive), is termed the Creeping Barrage Hex Grain, and is the general path the Creeping Barrage's FFE counter will follow as it is periodically Corrected toward the Aiming Hex. At this time he also secretly records whether in each Game Turn he will Correct this Creeping Barrage *in each friendly PFPh only, or in both his PFPh and DFPh*.[29] He also secretly records *the Game Turn in which the Creeping Barrage will Lift* (i.e., will end; 12.76). Note that the Creeping Barrage begins on Turn 1 (unless its Timing is off; 12.72), and will advance an average of two hexes per Correction. Lastly, he *prepares his Battery Access draw pile, including one extra black card/chit* for his Pre-Registered hex.

EX: The Scenario Attacker will enter along hexrow A of board 4, and must capture the buildings in hexrows O and P in six turns with the assistance of a 100+mm Creeping Barrage. Hexrows Q-GG are not playable. Studying the board, he decides to make G5 his Pre-Registered hex and P5 his Aiming Hex—thus establishing as his Creeping Barrage Hex Grain all the hexes with a "5" coordinate between G5 and P5 inclusive. He also decides that he will Correct his Creeping Barrage in his friendly PFPh and DFPh; he indicates this by recording "Correct: FFE: 1-2". (If he had wished to Correct it only in his PFPh, he would have written "Correct FFE: 1".) Finally, he decides to have his creeping Barrage end after Game Turn 3, so he writes "Lift: GT: 4".

12.72 TIMING: After both sides have set up, but prior to the start of the initial RPh, the Scenario Attacker makes a special Battery Access draw. If it is *black*, the Creeping Barrage will commence in coordination with his ground attack, and the initial RPh now begins normally. If the draw is *red*, he must make a Timing dr (halved; FRU) to find how many "Game Turns" the Creeping Barrage will commence ahead of his ground attack.[30] He then begins "pre-Game Turn 1". Each "pre-Game Turn" consists *only* of the Scenario Attacker's friendly PFPh and friendly DFPh, and only so that his Creeping Barrage can be Corrected/resolved as per 12.73-.731. The appearance of the Creeping Barrage's FFE:C counter in a "pre-game" DFPh signifies the completion of one "pre-Game Turn", the number of which that must be completed is equal to the Final Timing dr. After the completion of all "pre-Game Turns", the red card/chit that had been drawn is exchanged for a deliberately-drawn *black* card/chit, and the red card/chit is shuffled back into the pile. The initial RPh of the scenario then begins, with the Creeping Barrage's FFE:C counter remaining in its present hex to be Corrected and resolved in the ATTACKER's PFPh, and with a black Battery Access card/chit showing.

12.73 PFPh MECHANICS: At the start of a friendly (even if "pre-game") PFPh in which the Scenario Attacker has a Creeping Barrage available, he must, in lieu of rolling for Radio Contact, perform step 1 or step 2 below—after which he then performs step 3.

1) *If it is the PFPh of Game Turn 1 and his special Battery Access draw was black (or if it is the PFPh of "pre-Game Turn 1")*, he must place his Creeping Barrage's AR counter in its Pre-Registered hex and then "directly place" its FFE:1 counter as per C1.731-.732; or,
2) *If his Creeping Barrage's FFE:C counter is onboard*, he must exchange it for a FFE:1 counter and then Correct that FFE:1 as per 12.74 *[EXC: if it Lifts; 12.76]*.
3) *Once the FFE:1 counter is in its final placement hex for that PFPh*, he resolves that Barrage's attacks and then exchanges its FFE:1 counter for a FFE:2.

12.731 DFPh MECHANICS: At the start of each (even if "pre-game") DFPh in which the Scenario Attacker is the DEFENDER and has a Creeping Barrage FFE:2 counter onboard, he must perform one *or both* of the following actions in lieu of rolling for Radio Contact:

1) *If he had recorded his Corrections as "FFE:1-2"*, he must *first* Correct his FFE:2 counter as per 12.74 *[EXC: if it Lifts; 12.76]*; and/or,
2) *Regardless of whether he had recorded "FFE:1 " or "FFE:1-2" for his Corrections*, and if the Barrage did not Lift in step 1, he resolves that Barrage's attacks and then flips its FFE:2 counter to the FFE:C side.

12.732 ADJUSTMENT: If, in the Scenario Attacker's Turn 1 (or "pre-Game Turn 1") PFPh, the Creeping Barrage FFE:1 counter's final placement hex is *not* its Pre-Registered hex, then on his side record he must cross out that Pre-Registered hex's coordinate and substitute that of the FFE:1 counter's present hex. He must then also cross out the coordinate he had recorded for the Aiming Hex and replace it with that of a new Aiming Hex. These two newly-recorded hexes must form a new Creeping Barrage Hex Grain that retains the exact alignment and configuration of the original Creeping Barrage Hex Grain.

© 2000 Multi-Man Publishing, LLC

12.74 CORRECTING: Each Correction of a Creeping Barrage FFE counter is of two hexes, and must be attempted to (i.e., the AR [as per C1.4] must be placed *in*) a hex in the Creeping Barrage Hex Grain that is *closer* (in hexes) to the Aiming Hex than the FFE counter's present hex. If this cannot be done, then the Creeping Barrage must Lift (12.76). Each Correction is subject to a normal accuracy dr, and if inaccurate is also subject to a direction of error dr and a subsequent error of *one* hex.

EX: Continuing the previous example, after all setup the Scenario Attaeker's special Battery Access draw is red. Therefore he makes a Timing dr that is an Original 3, which means his Creeping Barrage will attack for two "pre-Game Turns" before the actual Turn 1 RPh begins. So for the "pre-Game Turn 1" PFPh (step 1 of 12.73) he places his AR in G5 (his Pre-Registered hex) and rolls for accuracy, which he fails to achieve. It errors to G6, so he places the FFE:1 counter there, places a Barrage counter (12.11) in G2 and in G10, and then crosses out "4G5 (Barrage: G4-G6)" and writes "4G6 (Barrage: G5-G7)" He also changes his Aiming Hex from "P5" to "P6". (Note that P6 is the only hex that can serve as the new Aiming Hex, given both G6 as the FFE counter's hex and the requirements of 12.732. In essence, the FFE's inaccuracy has caused the Creeping Barrage Hex Grain to change from "all hexes with a coordinate of '5' between G5 and P5 inclusive" to "all hexes with a coordinate of '6' between G6 and P6 inclusive".) After this he proceeds to attack hexes G2 through G10 (inclusive) with 16 FP each, and then exchanges the FFE:1 counter for a FFE:2 (step 3 of 12.73). Now he begins the DFPh of "pre-Game Turn 1", in which he must Correct the FFE:2 counter (step 1 of 12.731) two hexes to a hex that is both in the new Creeping Barrage Hex Grain and closer to the new Aiming Hex. His only choice can be I6, so he places his AR there; however, his accuracy dr is a 3, so he makes a direction of error dr which as per the AR's alignment results in the FFE:2 counter erroring one hex (12.74) to H6. After repositioning his Barrage counters he resolves all Barrage attacks vs hexes H2-H10 inclusive, and then flips the FFE:2 counter to its FFE:C side (step 2 of 12.731), thus completing "pre-Game Turn 1".

Next, in the PFPh of "pre-Game Turn 2", he must replace the FFE:C counter with a FFE:1 which he must then Correct (step 2 of 12.73)—to J6 in this case. He will then repeat step 3 of 12.73, then step 1 of 12.731, and then step 2 of 12.731. When as per this last step he has flipped the FFE:2 counter to its FFE:C side (thus showing that his Creeping Barrage has completed its actions for another Game Turn—in this case the second and final "pre-Game Turn"), then the actual RPh of Turn 1 will begin.

(If the Scenario Attacker's Correction note were "FFE:1", he would follow the same procedure except that he would not Correct the FFE:2 in the DFPh of each "pre-Game Turn"; i.e., he would not use step 1 of 12.731. He would still use step 2 of 12.731 though.)

Once the scenario actually begins, the Scenario Attacker will handle the Creeping Barrage in each friendly PFPh in exactly the same manner as in the "pre-Game Turn 2" PFPh; likewise, he will handle it the same in each friendly DFPh as he did in the DFPh of "pre-Game Turn 2". These procedures will continue until the Creeping Barrage Lifts (12.76).

(If the Scenario Attacker's Correction note were "FFE:1", once the scenario actually began he would still follow the same procedure except that he would not Correct the FFE:2 in his friendly DFPh.)

12.75 SMOKE/HINDRANCE: A Creeping Barrage FFE may not be used to place SMOKE. However, the FFE Hindrance DRM (C1.57) of a Creeping Barrage is +2 instead of the normal +1 *[EXC: +1 if it is raining or the scenario has Deep Snow]*.[31]

12.76 LIFTING: A Creeping Barrage is one Fire Mission from the time its special Battery Access draw is made until that Barrage ends. A Creeping Barrage ends (i.e., Lifts) at the beginning of the first friendly fire phase in which it can no longer be Corrected as per 12.74 within the Creeping Barrage Hex Grain, or at the beginning of the first friendly fire phase that occurs after the Creeping Barrage has been used for the number of Game Turns (including "pre-Game Turns") its owner had recorded for it (12.71)—whichever occurs first. When a Creeping Barrage Lifts, its FFE counter is simply removed from the board, and that Creeping Barrage is no longer usable in that scenario.

EX: Continuing the previous example, it is now the beginning of the Scenario Attacker's Game Turn 1 PFPh, and his Creeping Barrage's just-substituted FFE:1 counter (step 2 of 12.73) is in N5 about to be Corrected to P6, which is the new Aiming Hex and the only hex to which that FFE can now be Corrected (12.74). The only possible *final* placement hex for the FFE counter is P6 or a hex adjacent to P6. If it lands in Q6 or Q7 it will not be resolved, since the entire FFE Blast Area will be offboard. If it instead lands in any other of those hexes it will be resolved. However, regardless of where it lands, it will Lift at the start of the Scenario Attacker's next friendly DFPh, since it will then not be able to be Corrected *two hexes* and still be closer to P6 than its then-present hex.

(If the Scenario Attacker's Correction note is "FFE:1", the same sequence of events will occur but the Barrage will attack the same Blast Area hexes twice (once as a FFE:1, then in his next DFPh as a FFE:2) before being Corrected [or Lifted] in his next PFPh.)

(If this were the end of the Scenario Attacker's Turn 1 DFPh instead of the beginning of his PFPh, the Creeping Barrage would Lift at the Start of his Turn 2 PFPh since he only allotted three Game Turns of use to it, two of which were unfortunately used in "pre-Game Turns".)

12.77 OBSERVER/RADIO/ACCESS: The use of an Observer is not allowed with a Creeping Barrage. A radio may not attempt Contact with a battery that is conducting a Creeping Barrage. Battery Access draws are not made for a Creeping Barrage during a scenario. *[EXC to all: Converting; 12.771.]*[32]

12.771 CONVERTING: If a SSR allots a radio for use with a Creeping Barrage, a Good Order Observer may attempt to gain normal Radio Contact and Battery Access (using its present draw pile) in an allowed phase *after* that in which the Creeping Barrage Lifts. If he succeeds, that battery then becomes available for normal (Concentration/Harassing) Fire Missions.[33] However, the Pre-Registered hex used to initially place the Creeping Barrage is no longer considered Pre-Registered.

EX: Continuing the previous example, assume that it is now the start of the Scenario Attacker's *next* friendly DFPh and the Creeping Barrage Lifts. If he has a Good Order Observer available in his *next* friendly PFPh, or next DFPh, etc., he may at that time use that Observer in an attempt to gain Radio Contact and Battery Access, thereby converting the battery to normal OBA use.

CHAPTER E FOOTNOTES

1. *1.1 NIGHT:* Historically, the unique characteristics of nocturnal assaults offered significant advantages to the attacker and became increasingly common as the war progressed since, with proper planning, limited-objective attacks at night were more effective in terms of seizing ground and suffering fewer casualties than if made during daylight hours. During a night assault, the attacker had more difficulty in coordinating his actions and hence a greater dependence on some predetermined plan, but his normal advantages of initiative and surprise were much enhanced. The defender on the other hand, was already jittery since he was uncertain of what, if anything was happening "out there" in the black of night. Moreover, he couldn't see to act—only to react—and the shock of heretofore unseen enemies suddenly almost upon him—well within the usual protective zone afforded by the range of his weapons—could easily cause panic and put an inexperienced (and perhaps otherwise superior) foe to flight. In any case, it invariably cut the exposure time to lethal defensive fire by lessening the area that had to be traversed under enemy fire. If anything, our night rules understate the difficulties of night combat for purposes of playability.

2. *1.12 NVR CHANGE:* The Base NVR Change dr is weighted to decrease NVR because as a battle progresses, visibility tends to drop due to the disruption that explosions and bursts of light have on night vision. See footnote E7.

3. *1.21 DEFENDER MOVEMENT RESTRICTIONS:* At night, a Scenario Defender is generally assumed to be settled in for the evening, with a minimum of movement so as not to provoke fire from nervous sentries. Even if aware of enemy activity, the defending commanders could see little of what was transpiring on the battlefield at night and hence could not easily assess their situation. This impediment prevented them from accurately determining if and how their units should be moved—i.e., which should be repositioned or formed up for a counterattack—since they didn't know if the enemy was also advancing against other areas of the defensive line. In short, the defenders could not immediately act; only react—thus enhancing the effectiveness of the attacker's initiative. This handicap to the defender's flexibility is easily forgotten by the omniscient player who can see far more than his cardboard counterpart. Keep in mind also that an attack against a Cloaking counter or concealed unit does not necessarily mean that the Defender has seen an enemy unit—or that he has fired at a specific target—it is just the mechanic through which the Discovery process is simulated.

4. *1.4 CLOAKING:* The most important aspects of night combat were the ability to infiltrate enemy lines undetected, and the defenders' surprise at an enemy force appearing "out of nowhere". The Cloaking rules are necessarily abstract and

© 2000 Multi-Man Publishing, LLC

should be so viewed. Players should realize that the superior movement ability granted to Cloaking counters does not mean that units could move any faster at night. Rather, it abstractly represents, due to the cloak of darkness, their increased ability to infiltrate vis-a-vis the defenders' lessened ability to detect and react to such movement. Moreover, it illustrates the surprise effect of a sudden appearance at or within the enemy positions. Even though the omniscient player may be "attacking" the Cloaking counter in an attempt to "discover" it—the player should realize that the units involved do not actually know what they're shooting at; i.e., they "think there's something out there" . Their combined FP and the resulting fire attack just represent their percentage chances of "discovery" of the units (if any) hidden by the Cloaking counter, given the prevailing distance, terrain, and other factors involved in the firing process. Cloaked movement therefore represents prior/continuous movement of which the enemy is unaware, thus offsetting to some degree the defender's omniscient view of the situation and eliminating the need for more game turns to allow adequate infiltration opportunities. An additional Cloaking Box Display is provided on the Chapter K Divider for use with footnote A18, PF possession (C13.311), parachute/glider contents (8.1, 9.1), etc.

5. *1.5 NIGHT MOVEMENT:* These movement rules assume operations under combat conditions (i.e., black out orders are in effect). Should a SSR wish to simulate a surprise raid deep behind enemy lines, it could specify that vehicles are operating with headlights on, or that city streets are lighted, in which case these movement penalties would not be applicable (and the vehicles would be perpetually marked with Gunflash markers as long as those conditions persisted).

6. *1.53 STRAYING:* The biggest problem with night attacks from an attacker's point of view was the coordination of his units. Units wandering off course or mistaking objectives were commonplace occurrences and made it difficult for all but the most experienced night-fighters to launch coordinated assaults.

7. *1.7 COMBAT:* Night combat was vastly different due to the relative inability to see the enemy. One's eyesight adjusts to darkness due to rhodopsin, or "visual purple", in the retina—but gunflashes (especially from one's own weapon), exploding artillery shells, and even starshells quickly counteract it, leaving "spots before the eyes" and great difficulty in seeing. The most one could see of the enemy during actual fighting were dark outlines and moving "shadows". Adding to this problem was a lessened ability to judge distances, the near uselessness of conventional optical sighting and ranging equipment, and an increased sense of jitteriness. All these factors combined to make weapons markedly less effective at night and led to an increased reliance on Close Combat.

8. *1.7 COMBAT:* Conversely (to footnote 7), the consequences of movement at night in drawing fire were just as pronounced due to the heightened use of the sense of hearing to help "see" targets and guide fire. The sky at night is to some degree always less dark than the area below the skyline; therefore, anything that rises above the skyline (e.g., buildings, tree lines) stand out in silhouette and are much more noticeable. Moreover, such features provide a rough point of reference by which size and distance can be estimated. To help visualize this concept, picture a tree line silhouetted against the horizon at night. Since a rough estimate of the trees' height can be made, it is not too hard to calculate the approximate distance to them. A unit in Open Ground with no nearby noticeable terrain features would thus have an advantage when trading shots with an enemy at the base of that tree line, since all the enemy could see would be gunflashes emanating from somewhere in a sea of darkness.

9. *1.76 MISTAKEN FIRE:* Being fired on by friendly troops was an all-too-frequent occurrence at night. Hence, the use of captured MG at night was discouraged since their use invariably drew fire from friendly units who mistakenly thought they were shooting at the enemy. Increasing the chances of an effective Sniper attack in this situation is the simplest way to show the increased risk of such use without prohibiting it altogether. Similarly, use of a Sniper attack to reflect Mistaken Fire is also a simple abstraction to reflect the average damage done to one's own troops during a night action. It does not reflect increased enemy Sniper activity, nor does it necessarily represent fire from a specific friendly unit. The Mistaken Fire DR is just a convenient, artificial mechanism to trigger random errant fire which might be occurring anywhere on the board.

10. *1.8 GUNFLASHES:* Non-Opportunity Fire occurring in the AFPh does not leave Gunflashes because it is considered to be of such short duration that it is of little help in lining up return fire for the subsequent PFPh.

11. *1.9 ILLUMINATION:* Starshells, Fires, and the moon all aided night visibility in some respects—while in other ways they actually degraded it. Obviously, any light source would illumine an area in proportion to its brightness. An illuminating source even as "soft" as the full moon, however, increased the contrast between light and dark and thus actually made it harder to see into those areas that remained in shadow. Moreover, the light source diminished the eye's visual purple, yet further increasing the difficulty of viewing these unlit areas—or of actually seeing at all if the light ceased to exist.

Another problem with viewing an illuminated area at night was that the light from starshells and fires was "unnatural"; i.e., it did not re-create the daylight landscape. A starshell created an eerie vista whose vertically standing features could be either partially or totally illuminated—and/or silhouetted—depending on the relative positions of the viewer, feature, and starshell. These latter two in combination also caused stark shadows which changed shape and shifted position as the starshell descended or drifted with the breeze.

A Fire cast a light which was often unsteady in intensity, so that while it created an illumination/silhouette phenomenon like a starshell, the landscape did not seem to shift about but rather seemed to "flicker" with a flame-red hue.

Finally, to add to the combatants' disorientation was the fear and agitation of battle, and also the presence of "spots before one's eyes" caused by gunflashes and explosions. All these factors combined to make the details of illuminated areas far less discernible than when viewed in daylight.

12. *1.921 STARSHELL USAGE:* The requirement of a Usage dr is an abstraction of the unit's ability to fire a starshell, its awareness, and the possibility of firing a dud.

13. *1.933 IR EFFECTS:* An IR illuminates a larger area (while using all ROF and prohibiting the use of other ammo types) because it is assumed that IR are brighter and more numerous within the given time period.

13A. *1.95 TRIP FLARES:* Since the light of starshells and IR often would not penetrate the canopy of foliage in the jungle, trip flares were sometimes used to detect enemy movement. These flares were actually incendiary grenades and incendiary instructional bombs, with trip wires attached.

14. *2.1 INTERROGATION:* In scenarios where Victory Conditions are not based on Casualty Victory Points (A26.21), the incentive for taking prisoners is greatly lessened; presumably only the effects of No Quarter (A20.3) prevent wholesale cardboard war crimes. This incentive can be increased in many scenarios by providing immediate practical application of information made available by those prisoners. Use of the Interrogation rule reinforces the importance of taking prisoners at the tactical level, where otherwise the need to guard such prisoners can be looked upon as a disadvantage.

15. *5.1 BOAT COUNTERS:* The three types of boat counters used simulate the most prominent models employed by German assault engineers. While the equipment of other nationalities may have varied considerably, no attempt has been made to provide distinct models for each nationality given their infrequent and brief employment in the game. Anytime such equipment is listed for a non-German OB, these counters are assumed to be that nationality's equivalent equipment. The German assault boat (Sturmboot) was a light, wooden, keel-less boat propelled by a long shaft, shallow-draught propeller which allowed it to be driven right up to the water's edge. Small rafts (Kleine Flossaecke) were pneumatic boats propelled by paddles and carrying up to four men. The squad-sized counter represents several craft operating in close proximity. The large raft (Grosse Flossack) was a larger pneumatic boat that also relied on paddles for propulsion. Uninflated pneumatic boat counters may be transported by any vehicle at a PP cost of two PP each. Such transport requires inflation before use, which is inappropriate within the timeframe of most ASL scenarios. Should a scenario require such an option each pneumatic boat requires four complete Game Turns per 12 PP capacity (or fraction thereof) to inflate and requires a TI HS/Crew so involved. A TI squad may inflate two boats simultaneously but cannot decrease the time required to inflate one. Larger "ferry" configurations (built by engineers lashing together large rafts) were too vulnerable to be used in opposed crossings and consequently are not considered for use in the game.

16. *5.52 ORDNANCE FIRE vs BOATS:* All of these boats rode low in the water and therefore presented small target silhouettes. Furthermore, a boat was rarely motionless—being constantly subject to drift plus whatever propulsion it could manage on its own. Consequently, Motion and HD status are granted to boats being fired on by ordnance. A Beached boat with Passengers is not literally laying on the shoreline; rather, it is near the water's edge with its Passengers engaged in the process of loading/unloading in the shallow water but still closely grouped around it.

17. *6.3 SWIMMING TEM:* Swimmers offer a small, alternately disappearing and reappearing target. However, the loss of shrapnel generation in a water hex is offset by the higher transmission of shock waves vs an immersed target.

18. *7.1 AIR SUPPORT:* The real value of tactical air support was in the interdiction of transport behind the lines, where identification of targets as friendly or enemy was not a problem. Although the importance of aerial ground support missions cannot be denied, its portrayal in a tactical level game such as ASL, which usually deals in real-life time span firefights of 30 minutes or less, is a real problem. Foremost is the very weighty matter of play balance given the potency of aircraft. Too much depends on the single roll of a die when matters of air support are being contested. Therefore, players more interested in an evenly played game should shy away from

© 2000 Multi-Man Publishing, LLC

the use of Air Support rules, leaving them as an exercise for those more interested in simulating the effects of ground support. Furthermore, due to the plethora of differing aircraft types and armaments available to the various combatants, and its questionable relevance to the scope of ASL, we have made little attempt to distinguish between aircraft types/armament. All Fighter-Bombers are assumed to attack with "bombs" although the armament depicted could just as easily be rocket or armor piercing cannon. The Air Support rules are designed to show the average effects of ground support missions by depicting all aircraft except Stukas as generic Fighter-Bombers with the same armament/capability. Players who wish to more accurately portray the individual attributes of specific aircraft types are encouraged to satisfy their whimsy with a bit of research and SSR of their own design. The existing rules framework allows for the easy insertion of varying armaments, such as Hans Rudel's special 37L cannon-equipped Stuka, or the various rocket/cannon armament of the Sturmovik, Hurricane, P-47, or Typhoon. A more common SSR would be the use of fighters with no bomb load. Due to the generic treatment of Air Support aircraft, they are provided in German blue, Japanese yellow, and American green. Other Allied nations simply use U.S. aircraft counters.

19. *7.31 RECALL:* A Recall due to a Sighting TC DR is assumed to be caused by one or more miscellaneous factors such as low fuel or an inability to sight any targets (or at least targets that can be clearly identified from the air as both enemy and worthwhile). Although aircraft are given a clear LOS to all hexes except Blind Hexes the concept of the Sighting TC pays homage to the fact that no one is as omniscient as the player—let alone a pilot thousands of feet up who must also fly his aircraft while searching for targets. Like the quarterback who throws into double coverage because he didn't see a wide-open receiver, a pilot cannot see everywhere at once—let alone identify what he sees with complete certainty as friend or foe.

20. *7.51 & 7.52 AA FIRE:* AA ranges are actually much greater than assumed by the rule limiting AA fire to aircraft actually making an attack. However, the rule assumes that in a typical ASL scenario, such Guns are set up primarily for use against ground units, and are unwilling to betray their positions to opposing ground forces (or attract aerial attack) by use in a non-defensive manner vs aircraft not actually attacking them. Moreover, the rule also assumes that the aircraft remain above the effective ceiling of Light AA fire when not attacking. The principal use of AA Guns without IFE is vs high-altitude aircraft, due to their lower rate of fire and the difficulty of tracking such a fast-moving target at close range with a bulky weapon. Heavy AA is of little use vs low-flying planes and is therefore prohibited from such fire.

21. *7.51 LIGHT AA FIRE:* Most Infantry-operated MG are ground support weapons which could not effectively fire at an aircraft without special AA mounts. As HMG in the ASL system are often the same weapons represented by MMG (only with more ammunition and accessories), it is assumed that all HMG are equipped with the necessary adapters for use vs aircraft, whereas MMG are not. The requirement to have such weapons marked with an AA counter in order to engage in AA fire further depict the degree of readiness required by such a firer in order to effectively fire on attacking aircraft.

22. *7.511 AA RESOLUTION:* Fighter-Bombers became harder to shoot down as the war progressed and they evolved in their Ground Support role. The addition of armored cockpits, self-sealing fuel tanks, and higher speeds made them less vulnerable—an evolution required to keep pace with constantly improving light AA weapons.

23. *9.1 AIR DROP:* WWII saw the zenith of the paratrooper. Since then, massed drops of entire divisions in hostile territory have been deemed too costly. The advent of the helicopter to allow airborne troops to hit the ground ready for combat and with immediate overhead fire support has more or less relegated the combat air drop to relative obscurity. Even in WWII, most air drops were attempted at night to give paratroopers a chance to land unobserved and regroup before facing opposition. Opposed daylight drops, i.e., descent directly upon an alert enemy position, invariably met with heavy casualties.

24. *9.2 DRIFT & 9.4 LANDING:* German parachutists dropped from lower altitudes than most Western Allies and were therefore not as subject to widespread drifting, although jump-related injuries were proportionately higher. In addition, their parachutes were not equipped with "risers" with which they could maneuver somewhat while in descent. The Russians jumped from higher altitudes because their square parachutes took longer to open, and tended to drift farther as a result.

25. *9.42 INJURIES:* During the Normandy landings, many Paratroopers drowned in less than three feet of water due to their overloaded condition. When a trooper hit the ground he was trained to roll to absorb the impact, but in their overloaded jump gear many who landed in the flooded lowlands, like overturned turtles, could not regain their feet and thus drowned. The NTC required of all landing paratroops to avoid Deployment simulates the scattering effect of paradrops and their increased vulnerability during their initial moments on the ground.

26. *9.7 PRE-1942 GERMAN PARADROPS:* During the early war years, the German *Fallschirmjaeger* dropped most of their weapons in separate arms canisters. Even in the attack on Crete, each paratrooper jumped carrying only a pistol with two magazines, a few grenades, and a knife. Only the squad/platoon leaders carried submachineguns. Four arms canisters were required in order to land the balance of a squad's weapons. This meant that sizable numbers of German paratroops dropped into action virtually unarmed until they found, unloaded, and distributed the contents of each arms canister. This was in sharp contrast to the Western Allies who in 1944 dropped so encumbered with extra weapons, ammunition, and assorted equipment that they could scarcely gain their feet from a prone position without help.

27. *12.1 BARRAGE:* A Barrage was primarily a defensive type of Fire Mission, since by covering a wider area it interdicted movement better than a normal Concentration. In a Barrage, the guns were aimed so as to distribute their fire along a pre-plotted axis rather than concentrating it on a particular spot. While Concentrations could often be requested and "on the way" within minutes, the planning of Barrages took quite a bit longer; hence they were prepared well in advance along Pre-Registered lines that straddled the enemy's expected avenues of approach.

28. *12.7 CREEPING BARRAGE:* The Creeping Barrage was widely used in WWI; during WWII it was held in less esteem since artillery by then had become much more flexible and accurate, but it was nevertheless used in a number of set-piece attacks. One advantage of the Creeping Barrage was that the attackers could advance behind a "curtain of fire", gaining some protection from the visibility hindrance it created. Moreover, if the attackers "leaned on" the Barrage (i.e., advanced as close behind it as possible) they were often able to close with the defenders before the latter had time to recover from the shelling. There were also several drawbacks to a Creeping Barrage, one of which was that many of the shells fell on empty ground due to the dispersion inherent in that type of fire, thus wasting much of its firepower. Another type of Barrage was the Rolling Barrage, which was actually two separate Creeping Barrages that leapfrogged each other to hopefully catch more defenders offguard and provide extra cover for the attackers.

29. *12.71 PFPh/DFPh CORRECTING:* One of the major drawbacks to the Creeping Barrage was its inflexibility. If the attackers met unexpectedly heavy resistance or were late in starting their attack, they could become so separated from the Barrage that its main benefits, (i.e., of providing cover and temporarily neutralizing the enemy), were lost. On the other hand, even if the attack was meeting lighter than expected resistance, its pace was still tied to that of the Barrage since the attackers were understandably wary of moving through it themselves. In game terms the Scenario Attacker faces the same problems. If he anticipates a fairly rapid pace of advance he should Correct his Creeping Barrage in both the PFPh and DFPh—although if he runs into a stiff defense, or if the Barrage starts too "early", it might leave his troops far behind. On the other hand, if he thinks his advance will be quite slow and the enemy will require extra "softening up", then he should Correct it only in the PFPh—but he must consider whether doing so will leave him sufficient time to fulfill his Victory Conditions, since the Barrage will restrict the speed of his advance.

30. *12.72 TIMING:* Having the Creeping Barrage begin ahead of the ground attack doesn't necessarily mean that the artillery commander's watch was running fast. It can also represent the ground elements getting off to a late start due to any number of factors: arriving late at the line of departure, disorganization caused by enemy artillery fire, unexpected delays during the advance (extra-stubborn defenders in the outpost line, undiscovered minefields), etc. Such misfortunes could not usually halt the inexorable pace of the Barrage; it was not easy to make a last-minute change to the plans of a complicated artillery timetable once its wheels were in motion.

31. *12.75 SMOKE/HINDRANCE:* The normal procedure during a Creeping Barrage was to fire one or two SMOKE rounds after each time that a certain predetermined number of HE rounds had been fired. This decreased the defenders' visibility (thereby aiding the attackers) while not substantially weakening the lethality of the barrage. Increasing the Creeping Barrage's inherent Hindrance DRM is a simple yet effective way to portray this.

32. *12.77 RADIO/ACCESS:* Radio use is not allowed with a Creeping Barrage because this type of artillery fire took many hours—even days—to plan and prepare for. This amount of exacting preparation was not abandoned, or even altered, lightly (which is why Battery Access for a Creeping Barrage is assumed to be constant). Moreover, such planning was carried out at a high level, as was the command of the actual artillery operation, and it was not often that a mere Forward Observer could convince the Brass to scrap all their hours of meticulous plotting and calculating on his word alone. A Creeping Barrage could sometimes be held up (i.e., held in place) if the infantry fell too far behind it, but this was the rare exception rather than the rule. In any case, the amount of time it might take an Observer to get through the chain of command to those at the top would generally preclude his having any effect within the timespan of a normal scenario.

33. *12.771 CONVERTING:* Special arrangements were sometimes made to allow individual elements of the artillery to fire Concentrations after the Creeping Barrage had run its course. Generally these were on-call shots at pre-planned target coordinates, but for simplicity's sake in the game such OBA just reverts to normal use.

© 2000 Multi-Man Publishing, LLC

F. NORTH AFRICA

ORDER OF PRESENTATION

1. Open Ground
2. Scrub
3. Hammada
4. Deirs
5. Wadis
6. Hillocks
7. Sand
8. Sangars
9. Tracks
10. Hillside Walls & Hedges
11. Arid Climatic Conditions
12. Desert Overlays
13. Alternate Terrain Types

F.1 *DESERT BOARDS:* Desert Boards are defined as those numbered 25-31 and any with desert-color Open Ground which may become available in the future. All buildings on board 25 are of stone construction.

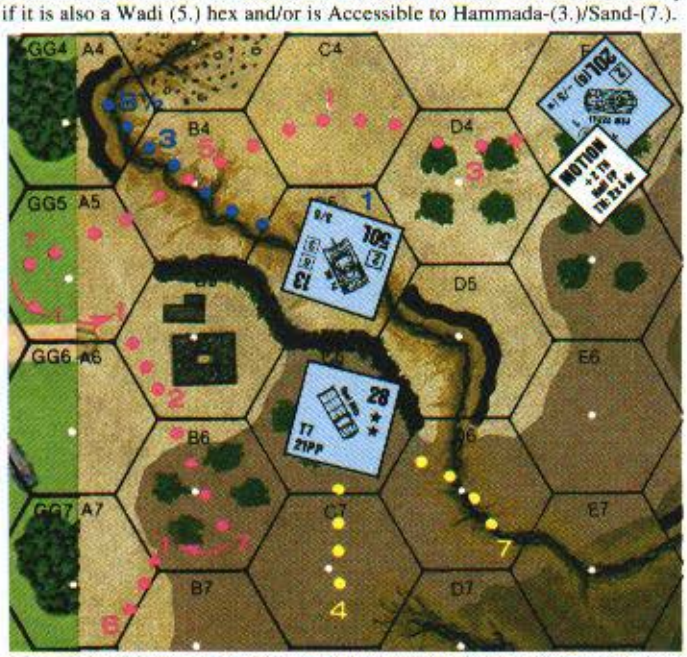
F.1A *EMPLACED GUNS:* Even if meeting the requirements of C11.2, a non-vehicular Gun that sets up on a Desert Board is considered Emplaced only if it sets up hidden/concealed in Concealment Terrain, or sets up in Sand (7.41) or under a Trench counter. A Gun that sets up qualified for Emplaced status by virtue of being in Scrub/Sand (only) may nevertheless set up non-Emplaced, provided this fact is noted on a side record. F.1A does not apply if Broken/Steppe Terrain (13.1-.2) is in effect.

F.1B *ENTRENCHING:* All Entrenching Attempts on Desert Boards receive a +2 DRM [EXC: Sand (7.421); Steppe Terrain (13.2)].[1]

F.1C *ROUTING:* In *any* scenario, a broken unit forced to rout but unable to reach a woods/building hex in that RtPh may rout to any terrain hex consistent with A10.51 but is *not* required to rout to the nearest woods/building hex. In a non-night scenario which uses *only* Desert Board(s) that are not Broken/Steppe Terrain (13.1-.2), a unit can be eliminated for Failure to Rout (A10.5) only if the enemy unit(s) forcing it to rout is within six hexes of it.

F.1D *DESERT OVERLAYS:* All rules specifically stated as applicable to Desert Boards also apply to the overlays provided in *WEST OF ALAMEIN* unless stated otherwise.

F.2 *DESERT TERRAIN CHART:* Hex entry on a Desert Board uses the MF/MP costs given in the Desert Terrain Chart [EXC: F.2A; see also Section 13] as well as those costs that remain applicable from the Chapter B Terrain Chart (brush, crag, building, orchard, road, etc.). A hex comprising a Desert half-hex and a non-Desert half-hex is considered Desert Terrain only if it is also a Wadi (5.) hex and/or is Accessible to Hammada-(3.)/Sand-(7.).



EX: The PSW 222(L) begins its MPh by expending three MP to enter D4 (Chapter B orchard MP cost), then enters C4 at a cost of one MP (Desert [i.e., Chapter F] Open Ground), then enters B4 at a cost of five MP (4 [enter wadi] + 1 [Desert Open Ground] = 5). It cannot enter A4, which is a woods hex as well as a wadi hex (F5.12, B19.21, A2.4), because an AC must expend *all* of its MP allotment to enter woods (Chapter B Terrain Chart). So it exits the wadi by entering A5 at a cost of seven MP (4 [ascend a level] + 3 [Chapter B Open Ground] = 7), and expends two MP to change its VCA two hexspines counterclockwise. Next it uses VBM along hexside B5-A6 at a cost of two MP (Desert Open Ground × 2) and enters B6 at a cost of seven MP (4 [ascend a level] + 3 [enter orchard] = 7). It then expends one MP to change its VCA one hexspine clockwise, and uses VBM along hexside A7-B7 at a cost of six MP (Chapter B Open Ground × 2). At this point it must again end its MPh in Motion. The PzKpfw IIIL now begins its MPh by expending a MP to Start, and enters B4 at a cost of three MP (2 [enter wadi] + 1 [Desert Open Ground] = 3). Next it enters A4 at a cost of 8½ MP (2 [enter wadi] + 6½ [Desert COT, which in this case is half its MP allotment due to entering woods] = 8½). With only ½ MP remaining, the tank must now end its MPh in Motion unless it opts to risk ESB. For simplicity's sake, all Bog/Immobilization DR have been ignored in this example.

● **F.2A** *BOARD 25 HILL:* When entering a board 25 *hill* hex that contains neither scrub, hammada nor a wadi, the Chapter B Terrain Chart is used to determine the applicable MF/MP costs [EXC: Hammada Immobilization (3.31) and Sand Bog (7.31) can still apply; an Alternate Terrain Type (13.) takes precedence]. If also using Overlay E1, see 12.51.

EX: See the F.2 illustration. Aside from any Start/Stop MP, the truck in 25C6 would expend four MP (Chapter B Open Ground) to enter C7, or seven MP (6 [enter wadi] + 1 [Desert Open Ground] = 7) to move INTO D6.

F.3 *DESERT VP:* To reflect the increased importance of vehicles in the desert campaign, any scenario that specifies Desert VP (DVP) uses the following method of calculating VP for Guns and vehicles eliminated/captured/exited as per A26.2-.22:

- *Gun:* a Gun's DVP value equals 10% (FRU) of its printed BPV (even if dm/malfunctioned);
- *Vehicle:* a vehicle's DVP value equals 10% (FRU) of its printed BPV (even if its MA is malfunctioned/disabled) [EXC: see F.3A].

For ease of use, each Gun's/vehicle's DVP value is printed in red in the upper left hand corner of its depiction on the scenario card. This number does *not* include the point value of whatever PRC the vehicle contains at scenario start. The point value of units/equipment other than Guns and vehicles are not changed by the use of DVP.

● EX: As per A26.21, but excluding points for its crew/armor-leader (if any), a German 37L AT is worth two points if eliminated, as is an 88L AA. Likewise, a PzKpfw IVF$_2$ is worth a maximum of four, an SdKfz 7 is worth one point, and an SdKfz 7/1 is worth a maximum of two. However, if DVP are specified, the point value of these pieces when eliminated becomes as follows: 37L AT, three; 88L AA, six; PzKpfw IVF$_2$, eight; SdKfz 7, two; SdKfz 7/1, six. Any Inherent crew (or Inherent HS) eliminated/exited with a vehicle is worth another two points.

F.3A *VARIABLE DVP VALUE:* U.S. and German mortar halftracks (SPW 250/7, SPW 251/2; M4, M4A1, M21), the British IP Carrier 3-in. Mortar, and the British 2pdr Portee all have as their Inherent MA a Gun that may be Removed/unloaded. If the Inherent MA of one of these vehicles is currently Removed/unloaded, the vehicle's DVP value is "2" if it is an AFV, or "1" if it is not; otherwise, its DVP value is calculated as per F.3.

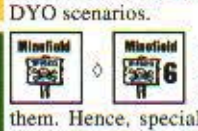
EX: The SPW 250/7's DVP value is "2" if its mortar is currently Removed, or "5" if it is not. The 2pdr Portee's DVP value is "1" if its 40L AT is currently unloaded, or "4" if it is not. The DVP value of a vehicle not listed in F.3A—e.g., the Carrier 2-in. or 3-in. Mortar, or a 3-ton lorry porteeing a 57L AT (British Ordnance Note B)—is the same regardless of whether or not it is currently "carrying" that weapon.



F.4 *AXIS VEHICLES:* All Axis vehicles [EXC: motorcycles] in North African (as defined in 11.2) scenarios set prior to October 1941 are assumed to have their MP allotments printed in *red* (D2.5-.51).[2] Hence even wheeled Axis vehicles are subject to Mechanical Reliability DR (D2.51) during that time period.

F.5 *SURRENDER:* In all scenarios set in North Africa (as defined in 11.2), Surrender may not be refused—i.e., a surrendering unit may not be eliminated thereby invoking No Quarter (A20.3).

F.6 *GERMANS:* Due to their devotion to Rommel and to a miserly troop replacement rate, a high proportion of the infantry in the 15th and 21st Panzer Divisions and the 90th Light Division should be elite when used in 1942-43 DYO scenarios.



F.7 *MINEFIELDS:* Due to the often mobile nature of the war in North Africa, minefields were usually well marked so friendly troops would not accidentally enter them. Hence, special minefield counters have been included in *WEST OF ALAMEIN*. These are termed Known Minefield counters, and are treated as normal mines except as specified otherwise. Known Minefield counters have the normal depiction on the front but list no attack strength; the reverse side is the same but with the strength shown. When Known minefields are called for in any scenario, during his setup the owner places the desired number of these counters onboard (with the strength-side *down*). Once the strength of such a counter has been revealed, it is flipped over. Known Minefield counters may represent minefields previously discovered by reconnaissance or in a previous engagement; therefore, Known minefields are set up onboard even in night scenarios. If a Known Minefield counter has its strength reduced or eliminated by OBA/bomb attack (B28.62), that counter is replaced by one having the appropriate new strength (or by a Dummy Minefield counter [F.7B] if its strength was eliminated); if its strength was unrevealed at the time, its new strength remains unrevealed. Known minefield factors may not be exchanged for booby trap capability, nor may Known A-P mines be exchanged for any type of A-T mines or vice-versa. The use of Known mines is not restricted to any particular type of board/-

scenario. Known minefield factors have the same BPV as hidden mines, and are indicated on the DYO Purchase Roster by adding "Kn" in the "TYPE" column of the "Fortifications" section where the purchase was recorded.

EX: A player whose OB contains 24 Known minefield factors may set up two Known Minefield counters with 12 factors each, or three with 8 factors each, or four with 6 factors each, or two with 6 factors each plus one with 12 factors, etc.



F.7A A second type of Known Minefield counter contains an arrow. Whenever a player wishes to have a multi-hex Known minefield along a Hex Grain (or Alternate Hex Grain), he may place two such counters along it with the arrow on each counter pointing towards the other in the same manner as if they were Barrage counters (E12.11), but with no limit to the number of hexes allowed between them. Such placement indicates that each hex between (and inclusive of) them along that (Alternate) Hex Grain contains a Known minefield. The type(s) and strength(s) of mines (if any; F.7B) in each such hex must still be recorded. A hex containing Known mines can incorporate only one A-P/A-T minefield, regardless of how many multi-hex Known minefields that hex is part of.



F.7B *DUMMY MINEFIELDS:* Some Known Minefield counters have "Dummy" printed on their reverse side in lieu of a FP factor, thus representing Dummy minefields. When the opponent discovers that it is a Dummy (which must be announced when *any* enemy ground unit enters, or successfully Searches [A12.152], its Location), simply remove it from play [EXC: if an unmined hex is thusly discovered in a minefield laid out as per F.7A, mark that hex with a Dummy Minefield counter]. A Dummy minefield is unaffected by a K/KIA resulting from a bomb/OBA attack (B28.62). The number that may appear beneath a Dummy Minefield counter depiction in a printed scenario OB represents the number of Dummy *counters* allotted. In a scenario that does not allot Dummy minefields (which includes all DYO scenarios), a player may add (at no extra BPV cost) one Dummy Minefield counter to his OB for every 24 *Known* minefield factors he sets up. In addition, in *any* scenario in which a player has received ≥ one Dummy Minefield counter, he may make a Secret dr (halved; FRD) and receives an additional number of Dummy mine counters equal to the result.

F.7C *HIDDEN MINES:* Known Minefield counters may also be used to mark hexes containing hidden mines whose presence (but not strength) is discovered by either Searching (A12.152) or by a unit's being subjected to a mine attack DR therein. In addition, any "normal" Minefield counter (i.e., one of the types covered in Section B28) is considered to indicate the presence of Known mines when placed onboard. Normal mines may not be otherwise exchanged for or converted to Known mines.

F.8 *FREE FRENCH:* Use British counters and rules for Free French Personnel [EXC: Free French squads have Assault Fire (A7.36) capability in/after 12/43; the A25.45 immunity to cowering never applies to Free French]. Free French OBA (including Accuracy and Draw Pile) is always treated as if British [EXC: DYO purchase; F.8D]. See also F.8A-.9 and the French section of Chapter H.

F.8A *PRE-12/43 EQUIPMENT:* For scenarios set prior to 12/43, Free French use (without Captured penalties) certain British [/British-color "(f)"; F.8C] SW, vehicles and Guns, and the rules covering them.

F.8B *12/43-5/45 EQUIPMENT:* For scenarios set in/after 12/43, Free French use (without Captured penalties) British-color "(a)"/"(f)" SW (see F.8C and F.9), certain U.S. [/U.S.-color "(f)"; F.8C] vehicles and Guns, and the rules covering them [EXC: Free French *Inherent* crews are considered British when determining their morale as per D5.1].

F.8C *FRENCH-BUILT EQUIPMENT:* Certain French-built SW/vehicles/Guns are provided in *CROIX DE GUERRE* for Free French use. They are in the U.S./British color, and are identified by having "(f)" in their piece name. An "(f)"-type, or French-color, SW/vehicle/Gun suffers Captured penalties when being used by *other than* (Free/Vichy) French.

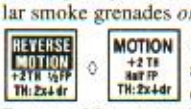
F.8D *DYO:* Free French use their own SW Allotment, OBA Availability and Rarity Factor, Charts for DYO scenarios. Use H1.463 for a Free French OP tank. Free *and* Vichy French cannot be purchased by the same side.



F.9 *U.S.-BUILT, BRITISH-COLOR SW:* U.S. MMG, HMG, .50-cal HMG, M2 60mm mortars and BAZ 44 are provided in the British color in *WEST OF ALAMEIN*. They are identified by having "(a)" in their piece name, and are used by Free French as per F.8B. The BAZ 44(a) is also used to represent a BAZ 44 Scrounged (D10.5) from a U.S.-built vehicle/wreck [which includes one with "(a)" in its piece name] by Free French (only); other nationalities would Scrounge a *U.S.-color* BAZ 44. The appropriate MG(a) is also used to represent one Removed (D6.631) from a U.S.-built vehicle by a British (as defined in A25.4) unit. A MG Scrounged by any nationality from a U.S.-built or British-built vehicle/wreck takes counter form as a standard British LMG, with no Captured penalties when being used by a U.S. or British (A25.4) unit. Captured penalties do not apply to the use of U.S.-color MG by British (A25.4) units, nor to U.S./British-(A25.4) use of British-color "(a)"-type SW [EXC: non-Free-French British treat *all*, while Free French treat *no*, type(s) of U.S. MTR/BAZ as Captured].

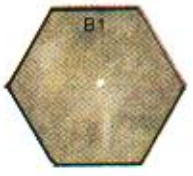


F.10 *VEHICULAR SMOKE GRENADES:* The crews of almost all armed vehicles carried smoke grenades for self-protection. Therefore, the Inherent Crew (or HS) of any vehicle with a MA weapon indicated on its counter may place Smoke Grenades (A24.1) using the same rules as attempting to fire a Smoke Dispenser (D13.2-.3), with the following exceptions: a CT AFV crew must be CE to attempt placement; a usage dr of "1" is necessary for successful placement by an armed-but-unarmored vehicle or a BU OT AFV, or of "≤ 2" for any CE AFV (a "6" dr has no effect beyond prohibiting placement); if successfully placed, a ½" *Smoke* counter is placed in the vehicle's own Location and treated as per A24.11; if placed during the opponent's MPh, the Smoke counter is removed at the end of that phase. Vehicular smoke grenades may not be used in any other way by PRC, nor may they be Removed/Scrounged. A vehicle may attempt to use vehicular smoke grenades *or* a smoke dispenser, but not both, during the same MPh.



***F.11** *REVERSE MOTION:* "Reverse Motion" counters are provided in *WEST OF ALAMEIN*, the use of which enables a vehicle to end its MPh in Motion while using Reverse Movement [EXC: NA if the vehicle is prohibited from using Reverse], and also enables it to make a Reverse *Minimum Move*. When using Reverse Motion/Minimum-Move, the principles of and rules for Motion, Minimum Move and Reverse apply unchanged except for obvious differences due to the vehicle's direction of movement. [Since this rule (F.11) supersedes parts of D2.15 and all of D2.24, it is considered optional except as used in conjunction with movement to/from Crest status (5.42; 5.422).]

F.12 *CHAPTERS A-E:* The various rules in Chapters A-D (and those in use from Chapter E) apply in conjunction with those in Chapter F unless specifically stated otherwise herein. Chapter F rules also assume the presence of the 1987 Errata in Chapters A and B. Chapter F rules that affect rules in some other chapter(s) are marked with ≥ one vertical bar of the appropriate color.

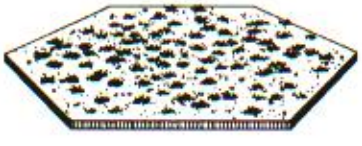




1. OPEN GROUND

1.1 Desert Open Ground[3] (e.g., hex 26B1 or the Open Ground portion of 25V2) is no different than normal Open Ground (B.1; B1.1) other than being colored yellowish-tan, having certain Emplacement (F.1A) and entrenching (F.1B) restrictions, and having different MP costs for some vehicles. See also F.2-.2A and 13.1. Scrub, Hammada and Sand are considered Open Ground for certain purposes; see 2.2, 3.2 and 7.2 respectively.





2. SCRUB

2.1 Scrub[4] is represented by a multitude of irregularly shaped olive/brown clumps and black lines/dots. Any hex containing such artwork is a scrub hex; e.g., 26E9.

2.2 Scrub is neither an obstacle nor a Hindrance to LOS, and is treated as Open Ground (1.1) for all purposes *other than* Gun Emplacement (F.1A), movement costs (2.21), concealment (2.3), Hammada Immobilization

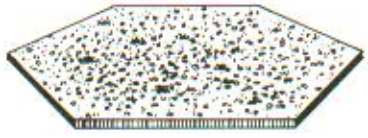
(3.31), and when Accessible to Broken Ground (13.1). Scrub does not negate FFMO or Interdiction.

2.21 *MF/MP:* The following movement costs apply to entering a *non-sand* Location that contains scrub: Infantry, one MF; Cavalry or Wagon, two MF; full-tracked vehicle, two MP; halftrack, three MP; armored car or motorcycle, four MP; truck, six MP. See 7.3 for entering a Location that contains both scrub and sand.



2.3 *CONCEALMENT:* Scrub is Concealment Terrain, but only for Infantry (and their possessed SW), Dummy stacks, entrenchments (including Sangars; 8.), and Emplaced Guns. A Gun that sets up HIP/concealed in scrub may be considered Emplaced (F.1A).





3. HAMMADA

3.1 Hammada[5] is represented by a multitude of black dots and irregularly-shaped angular objects with buff-colored interiors. Any such hex is a hammada hex; e.g., 26D4.

3.2 Hammada is neither an obstacle nor a Hindrance to LOS, and is treated as Open Ground (1.1) for all purposes *other than* movement costs (3.3), Hammada Immobilization (3.31), the resolution of certain attacks (3.4), Sand Bog (7.31), and when Accessible to Broken Ground (13.1). Hammada does not negate FFMO or Interdiction.

3.3 *MF/MP:* The following movement costs apply to entering a Location that contains hammada: Infantry, one MF; Cavalry or Wagon, three MF; full-tracked vehicle, two MP; halftrack, three MP; armored car or motorcycle, four MP; truck, six MP.



3.31 *IMMOBILIZATION:* Each vehicle that is not fully-tracked must make an Immobilization DR when it enters (or changes VCA in) either a hammada hex *or an Open Ground hex that is Accessible to a hammada hex* [EXC to both: if following a Track (9.1) or road]. If the Immobilization Final DR is ≥ 12 the vehicle is Immobilized [EXC: motorcycle; 3.32]. The following cumulative DRM can apply:

DRM	Cause
+1	If the vehicle expends MP as a Truck, weighs ≥ 4 tons, and is *not British-built**;[6]
+1	If the vehicle expends MP as a motorcycle;
+1	If the vehicle did *not* expend twice the *total* [EXC: Towing/Weather/Convoy] MP necessary to enter (or change VCA in) that hex†;
−1	If the vehicle is in an Open Ground hex that is Accessible to a hammada hex.

* *British-built* is defined as being a British-color counter without "(a)" [which denotes U.S. manufacture] in the piece name.
† The doubled MP cost is made as one expenditure.

Being thusly Accessible to > one hammada hex necessitates only one Immobilization DR. If changing VCA, one Immobilization DR is required for each hexside changed. In lieu of calculating the above DRM, players may find it easier to use the following table:

HAMMADA IMMOBILIZATION DR[a]
Original DR ≥ # = Immob.

MP Type	In Hammada Hex COT	In Hammada Hex 2 × COT	In OG[b] Hex Access. COT	To Hammada 2 × COT
Truck, < 4 tons	11	12	12	NA
Truck, ≥ 4 tons; British-built	11	12	12	NA
Other	10	11	11	12
Armored Car	11	12	12	NA
Halftrack	11	12	12	NA
Full-track	NA	NA	NA	NA
Motorcycle	10[c]	11[c]	11[c]	12[c]

[a] NA if following a track or road.
[b] [EXC: scrub, hammada, sand]
[c] The Rider breaks and is dismounted as per D15.46. An Original DR > this # eliminates the motorcycle; F3.32.

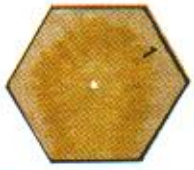
EX: A German Opel Blitz truck (wgt: 6½ tons) enters an Open Ground hex that is Accessible to a hammada hex, expending two MP simultaneously (rather than expending one to enter and then another one in the hex) to do so. The DRM applicable to the ensuing Hammada Immobilization DR are +1 and −1, so it will be immobilized only on an Original DR of 12. (If it instead expends only the one MP necessary to enter the hex, it will receive another +1 DRM and will be immobilized on an Original DR of ≥ 11.) If it now enters the hammada hex with a simultaneous six-MP expenditure (the minimum required), it will be immobilized on an Original DR of ≥ 10. Note that if the truck were moving thusly on board 25 hill hexes the procedure would apply unchanged, but its MP expenditures would differ (F.2A). Note that scrub, hammada and sand are *not* considered Open Ground for Hammada Immobilization purposes.



3.32 *MOTORCYCLE:* A motorcycle is not immobilized by a failed Hammada Immobilization DR; rather, if that *Final* DR is a 12, the Rider breaks and is automatically dismounted just as if he had failed a Wreck Check dr (D15.46); if that Final DR is ≥ 13, the same result occurs but the motorcycle counter is then eliminated.

3.4 *TEM:* A *cumulative* −1 TEM applies to any DC, Bombardment (C1.82-.821), or ordnance/OBA HE, attack vs an unarmored target in hammada [EXC: not to any type of HE Equivalency or Specific Collateral Attack, nor vs a Partially-Armored AFV]. If an attack receiving the hammada −1 TEM leaves Residual FP, that Residual FP is *increased* by one IFT column (like Air Bursts; A8.26). Otherwise, hammada has a 0 TEM.

EX: A 75mm Gun using the Area Target Type to fire at Infantry in hammada attacks with six FP and a −1 DRM (hammada TEM) on the IFT and will leave four Residual FP instead of the normal two. If it instead uses the Infantry Target Type it applies the hammada −1 TEM as TH Case Q and will leave eight Residual FP instead of six. If the Infantry were also in a foxhole their net TEM would be +1. Infantry in a Sangar (8.) in a hammada hex receive a net −2 DRM vs a Bombardment attack (+3 [sangar TEM; 8.4] − 1 [hammada TEM] = +2 TEM = −2 Bombardment DRM [C1.82]).





4. DEIRS

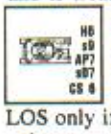
4.1 A deir[7] is a terrain feature of any overlay (12.) whose ID is prefixed by a "D", and is represented by a yellowish area enclosed by golden yellow shading (this shading being known as the *Lip*).

4.2 A deir, including its Lip hexes (i.e., those hexes on the overlay that contain a Lip), is a slight concavity. Units in a deir are at level 0 (assuming the overlay is on level 0 terrain), but can receive certain protective benefits due to the deir's Lip. Each hexside that forms part of a Lip hex, while lying completely "outside" the Lip, is termed a Lip Hexside. All deir hexes are Open Ground (1.1) [EXC: if deir TEM applies; 4.5] except as altered by the presence of scrub (2.2) or sand (7.2).

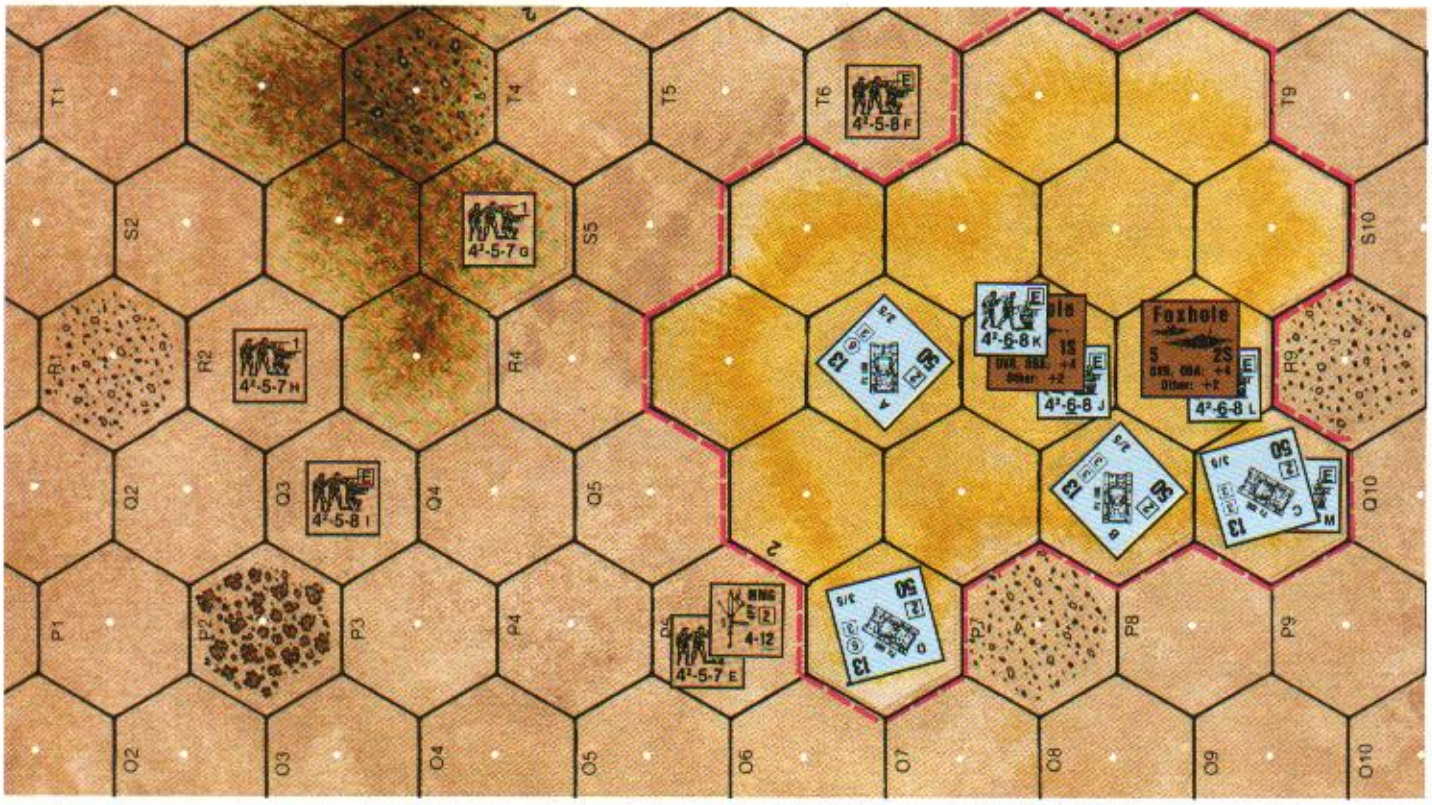
4.3 *MF/MP:* A unit (regardless of type) pays no extra MF/MP cost for entering/traversing a deir Location other than the COT of the hex (which is usually Open Ground). [EXC: A vehicle that exits a deir hex via a Lip Hexside must expend one extra MP to cross that hexside. For Defensive Fire purposes, this MP is assumed to be expended in the hex entered.]

4.4 *LOS:* A deir's only effect on LOS is that, barring other LOS obstructions, an entrenched/Emplaced unit in a *non-Lip* deir hex has a LOS *past a Lip Hexside* only to a same-level hex formed by that Lip hexside, and to any hex at a higher elevation than that entrenched/Emplaced unit. See also 4.51.

4.5 *TEM:* A non-PRC target in a deir receives a +1 TEM (or may claim HD status) vs Direct Fire if the firer is at the same elevation as the target and that firer's LOF crosses a Lip Hexside that does *not* form part of that firer's hex [EXC: if the firer and target are in separate deirs, and the firer is ADJACENT to the target across a Lip Hexside, that target still receives the deir's protective benefit]. Otherwise, a deir gives no protective benefit and is treated as flat level ground [EXC: Fire Lane; 4.52].



4.51 *AFV/WRECK TEM & HINDRANCE:* An AFV/wreck in a deir can provide a +1 TEM in the normal manner. Likewise, a LOS Hindrance in a deir can affect LOS in the normal manner [EXC: a "half-level" Hindrance in a deir can affect LOS only if both the viewing and viewed units are at the same level *and* at least one of those units is in any deir; for deir LOS purposes, brush, bridge, grain, marsh, crag, and an AFV/wreck (in LOS as per D9.4) are defined as "half-level" Hindrances].



EX: Shown in the illustration are a deir (with its Lip Hexsides shown by the dashed line) and a hillock (6.). Below are listed the LOS and protective benefits of the various units shown. Note that all units in the illustration are in mutual LOS unless specifically mentioned otherwise. Similarly, +1 TEM/HD status *(which cannot apply to mortar/OBA fire)* is given only where applicable; units not mentioned are not eligible for such status. Not all AFV LOS Hindrances are listed, but a representative sample is given.

- Tank A is HD only to squads H and I. Tank A Hinders squad H's LOS to squads K and L, but does not Hinder squad G's LOS at all. Tank A Hinders squad F's LOS to tank D but not to squad E.
- Tank B is HD only to tank D and squads H and I. Tank B Hinders Tank C's LOS to all other units shown except for squads F, G and L.
- Tank C is HD only to tank D and squads E, H and I. Tank C Hinders tank A's and tank B's (but not squad F's) LOS to hex P9, and also Hinders tank B's and tank D's (but not squad E's) LOS to hex R9.
- Tank D is HD only to tanks B and C and squads H, I and M. Tank D Hinders squad E's LOS to tanks B and C and to squads L and M, but not to hexes P7-P9 or R9-S10.
- Only entrenched squad J lacks a LOS to squads H and I.
- Squad K receives a +1 deir TEM (vs Direct Fire) only if fired on by squad(s) H/I (4.5), and a +1 Hindrance DRM vs their fire due to tank A.
- Squad M receives a +1 TEM due to tank C if fired on by any unit (considering them to be British for the moment) other than tank C (4.51; but this TEM is not cumulative with any deir TEM). If tank C were not in the hex, squad M would still receive a +1 deir TEM vs Direct Fire from squads H/I or E as well as from tank D (were it British).
- The FP of a Fire Lane counter placed in S10 by squad E would not affect moving squads K, J or L, nor would it affect any Vulnerable PRC of moving tanks B or D. However, if squad E placed the Fire Lane counter in R8, moving squad L could be attacked by it, as could the Vulnerable PRC of moving tanks B and D. Only in the latter placement of the Fire Lane counter could tanks B and D possibly Hinder the Fire Lane.

4.52 *FIRE LANE:* Infantry/Horses moving in a deir hex are immune to a Fire Lane attack in that hex if that Fire Lane crosses a Lip Hexside before/as it enters that hex *and* that hex does not contain the Fire Lane counter. A vehicle/Vulnerable-PRC [EXC: Cavalry Personnel] moving in a deir hex is immune to a Fire Lane attack in that hex if a Wreck in that hex would *not* Hinder that LOF (see 4.51) *and* that hex does not contain the Fire Lane counter.

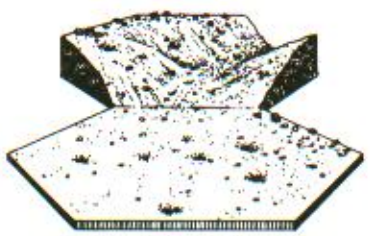




5. WADIS

5.1 A wadi[8] is a terrain feature of any overlay (12.) whose ID letter is a "W", and is represented by gully-like artwork in brown, black and yellow. In addition, each group of contiguous hexes on board 25 (and on Overlay E1) which contains this same type of artwork is a wadi; e.g., 25D7, E8, E9, E10 and F10 are wadi hexes and together constitute a wadi—as is also true of hexes I5 and J5 on Overlay E1. See also 12.41.



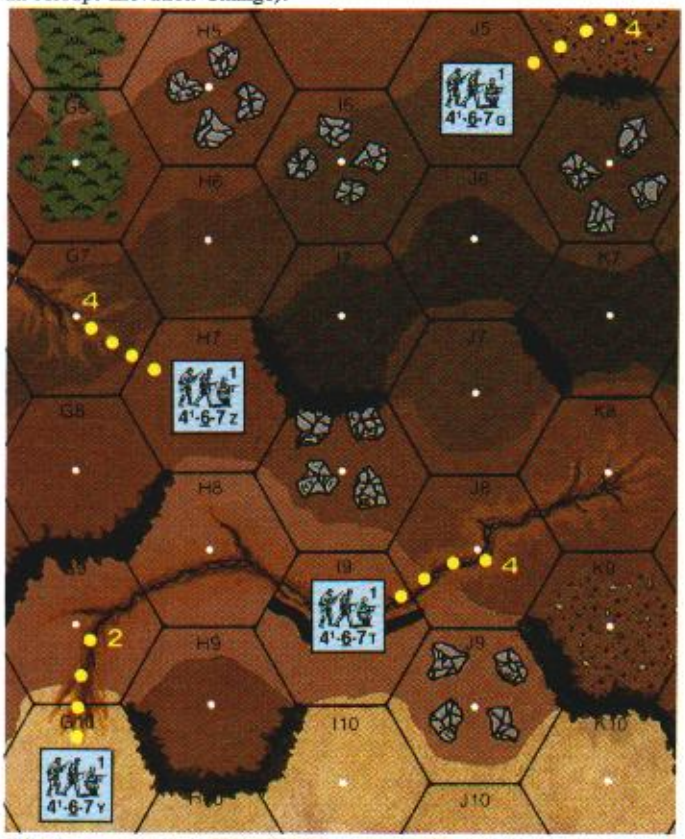


5.11 A hex containing a tiny portion of wadi along one of its hexsides (e.g., 25C7, G10, or Z10) is not a wadi hex, but that hexside is a wadi hexside.

5.12 A wadi is a Depression, and is the equivalent of a gully for all purposes except as modified below. Note that many of the wadis printed on board 25 (and on Overlay E1) change elevation along their length, and some wadi hexes also contain a Hill Crest line that is not crossed by the wadi. Movement in such Hill Depression hexes (B19.5) requires frequent use of the rules for Abrupt Elevation Changes (B10.5-.51) and Double Crests (B10.52), and the special LOS considerations given in B19.5-.52.

5.2 *MF/MP:* Normal gully movement rules apply to wadis [EXC: 5.21]. In addition, the following rules apply to movement in Hill Depression hexes. When a unit entering a Hill Depression hex crosses a *higher* Crest-Line

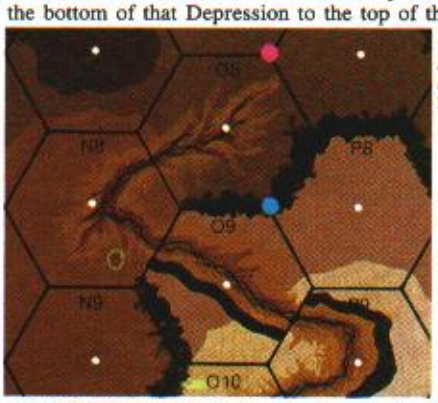
Depression hexside (B19.5), it pays the cost of moving to a higher elevation *only* if it actually increases its level. When a unit entering a Hill Depression hex crosses a higher Crest Line but *not* a Depression hexside, it always pays the appropriate cost of moving to a higher elevation (due to making an Abrupt Elevation Change).



EX: Infantry moving from 25G10 INTO G9 expends two MF, since the unit remains at level 0. A tank thusly moving pays three MP. Infantry moving from IN I9 INTO J8 expends four MF (2 [enter wadi]×2 [higher elevation]=4), since it is moving from level 1 to level 2. A tank thusly moving pays seven MP (2 [enter wadi]+1 [COT]+4 [higher elevation]=7). Infantry moving from H7 INTO G7 expends four MF (2 [Abrupt Elevation intermediate level]+2 [enter wadi]=4), while a tank thusly moving expends seven MP (4 [Abrupt Elevation intermediate level]+2 [enter wadi]+1 [COT]=7). Infantry moving from J5 INTO K5 expends four MF (1 [Abrupt Elevation intermediate level]+2 [enter wadi]+1 [hammada COT]=4), or expends three MF if moving from J5 to Crest status in K5 along the K5-J5 hexside (B20.91). A tank moving from J5 INTO K5 pays six MP (2 [Abrupt Elevation intermediate level]+2 [enter wadi]+2 [hammada COT]=6).

5.21 *BOG:* When exiting a wadi via a non-wadi hexside, a vehicle that expends MP as a truck need *not* undergo the Bog DR that is required of it by Note BB of the Chapter B Terrain Chart.

5.3 *WADI CLIFF:* A cliff that forms the side of a wadi (e.g., 25F6) is a normal Depression Cliff (B11.1-.21). A Depression Cliff on the same side of a wadi as a normal cliff hexside represents a continuous cliff from the bottom of that Depression to the top of that cliff.



EX: Infantry IN 25O9 wishing to directly enter N9 must Climb successfully for two turns—first to level 1, then to level 2.

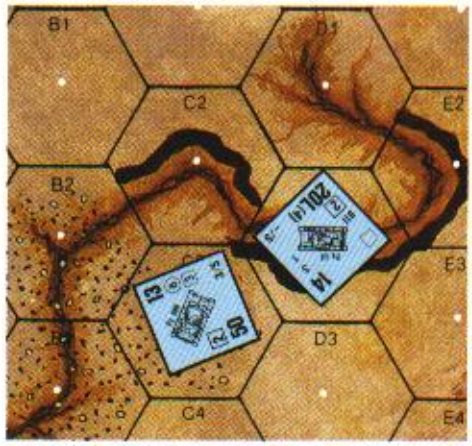
5.4 *CREST STATUS:* Unlike a gully, Crest status in a wadi may be used by all types of Infantry, SW, vehicles and Guns, within certain restrictions. No type of unit may gain Crest status along a Depression Cliff (B20.9), although the presence of a normal cliff or an Abrupt Elevation Change as a hexside of a wadi hex does not itself prevent Crest status along that hexside.

EX: See the 5.3 illustration. Crest Infantry in 25O8 may have the center protected hexside of their Crest counter along any hexside of that hex except O8-N8. Crest Infantry in O9 may have their center protected hexside only along hexside O9-O8 or O9-P8. Having it along hexside O9-O10 or O9-N9 is prohibited by O9's wadi cliff.

5.41 *SW:* All types of Infantry-possessed SW (as well as those SW that can be used while a Passenger/Rider) may be used from a wadi Crest position; however, any Infantry-manned SW *not* allowed to fire from a *gully* Crest position (see B20.95) may fire from Wadi Crest only within the manning unit's protected Crest front (B20.94), and Area Fire still applies for firing other Infantry-manned SW outside that manning unit's protected Crest front. Infantry may Place a DC vs a Crest vehicle by expending the MF required for it to enter that Crest position and making a Position DR (C7.346), but no unit may Throw a DC at such a vehicle.



5.42 *VEHICLE:* Any type of vehicle may gain Crest status in a non-bridge wadi hex, and may do so from either WITHIN that wadi hex or from an adjacent hex, but once it achieves Crest status it must immediately expend a Stop MP. To gain Crest status from WITHIN the wadi it must expend five MP (actually 4+0 MP for moving forward to a higher elevation but not entering another hex, plus one MP to Stop)—or alternatively it can Reverse into Crest status by expending four times its Reverse multiplier, plus one MP to stop. A vehicle may also enter a wadi hex via a non-wadi, non-wadi-cliff hexside to *directly* gain Crest status without going INTO the wadi, and may do so using either forward or Reverse movement. The MP cost using this method is the COT of the wadi hex (usually one MP for Open Ground—times that vehicle's Reverse multiplier [D2.21] if using Reverse movement) plus any cost for SMOKE, Dust (11.7), etc. in the wadi hex. A vehicle in Crest status is covered by a Vehicle Crest counter, which is placed with the words "HD (rear)" face-up if the vehicle *directly* gained Crest status by using forward movement across a non-wadi hexside without going INTO that wadi hex, or if it *Reversed* into Crest status from WITHIN that hex. A vehicle in Crest status may *never* change its VCA, but may change its TCA in the normal manner. A vehicle may gain Crest status by making a Minimum Move (even using *Reverse* Movement—i.e., making a Reverse Minimum Move), but only if that move begins IN the wadi hex in which the Crest status is gained, and once in Crest status the vehicle is assumed to immediately expend a Stop MP. A maneuver to/from Crest status is most easily visualized by imagining a Crest vehicle to be at the vertex that the Crest-side "tip" of its counter touches (hereafter referred to as its "Crest CAFP"). Note however, that for LOS purposes (5.424) the vehicle is *not* considered to be at the Crest CAFP. See also 5.421.



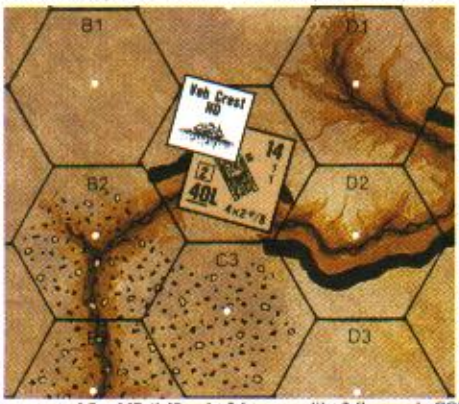
EX: The non-stopped tank IN 25D2 wishes to gain Crest status in C2 with its VCA at D2-C3. Its total MP cost to do so is ten MP (3 [enter wadi] +2 [change VCA to D2-C3]+4 [enter Crest status]+1 [Stop]=10). The Crest-status tank may be *visualized* as being "at" vertex C2-D2-C3, which is its Crest CAFP. Alternatively, it could achieve this same Crest CAFP by Reversing from WITHIN C2, but this would require 23 MP (3 [enter wadi]+1 [change VCA to B1-C1]+2 [Stop and Start]+16 {4 [enter Crest status]×4 [Reverse]}+1 [Stop]=23), thus requiring two MPh to accomplish. The tank would then be marked with the "HD (rear)" side of a Vehicle Crest counter since it Reversed into Crest status from WITHIN that wadi hex.

EX: The non-stopped tank in 25C3 wishes to gain Crest status during this MPh in C2 with its Crest CAFP at C2-D2-C3. It has three choices: it can move INTO the C2 wadi (3 MP), change VCA to D2-C3 (2 MP), enter Crest status (4 MP), and stop (1 MP), for a total expenditure of ten MP; or while still in C3 it can change its VCA to D3-C4 (2 MP), stop and start again (2 MP), then Reverse into Crest position in C2 (4 MP; 1 [Open Ground COT]×4 [Reverse]=4) and stop (1 MP), for a total expenditure of nine MP; or while still in C3 it can change its VCA to B2-C2 (1 MP), move directly into Crest status in C2 (1 MP) and stop (1 MP), for a total expenditure of three MP. In this last case it would then be marked with the "HD (rear)" side of a Vehicle Crest counter since it *directly* gained Crest status by using forward movement across a non-wadi hexside without going INTO that wadi hex.

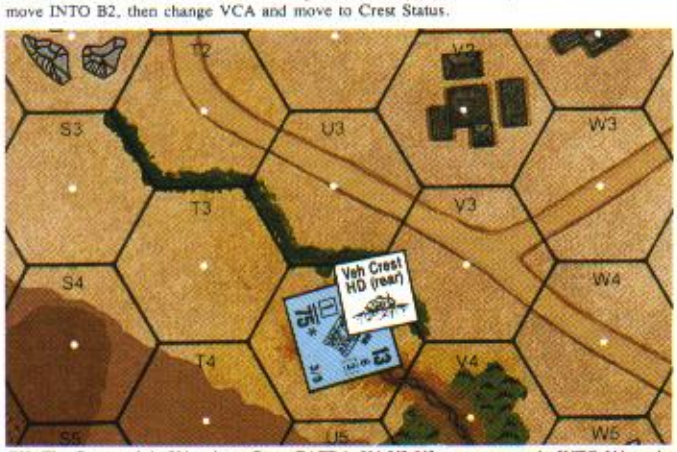
5.421 *WADI CLIFF/HEXSIDE:* A vehicle may not gain Crest status such that its Crest CAFP is on the same side of a wadi as a same-hex wadi cliff (i.e., the wadi cliff may not be "between" the wadi and the vehicle's Crest CAFP). Nor may a vehicle gain Crest status such that the two hexsides that form its Crest CAFP are both wadi hexsides.

EX: Using the two previous examples, the only other Crest CAFP that either tank can attain in C2 is at the C2-C3-B2 vertex. The other four vertices of C2 are all on the wadi-cliff side of the wadi. A vehicle cannot gain Crest status at all in E2, since vertex E2-D2-D1 is formed by two wadi hexsides (E2-D1 and E2-D2) and the other five vertices in the hex are all on the wadi-cliff side of the wadi.

5.422 *EXITING:* Since a Crest vehicle may not change its VCA (5.42), there are only two ways it can exit Crest status: It can move to a different hex by crossing a hexside that forms its Crest CAFP [EXC: it may not enter a wadi hex which contains a wadi cliff on the same side of that wadi as the vehicle's Crest CAFP] and is vulnerable to Underbelly Hits (D4.3) as it does so; or it can move INTO the hex it presently occupies. Moving to a new hex incurs no cost for leaving the wadi hex,[9] and moving INTO its present hex incurs just the cost of entering a wadi (i.e., it excludes the wadi's COT and any SMOKE, Dust, etc. costs).[10] A vehicle may not exit Crest status by moving directly to Crest status in another hex. A vehicle *may* exit Crest status by making a Reverse Minimum Move, but must then immediately end its MPh in Reverse Motion (F.11).



EX: The Crest tank in C2 can move only to C3 or INTO C2. Its cost to enter C3 is the normal three MP for a tank to start and enter hammada. If it Reverses INTO C2 it must expend nine MP (1 [Start]+8 [2 [enter wadi]×4 [Reverse]] =9), and if making a Reverse Minimum Move to do this it could neither make any VCA change nor expend a Stop MP. The tank cannot enter D2 directly from its C2-D2-C3 Crest CAFP because D2's wadi cliff is on the same side of the wadi as that CAFP. If the tank's Crest CAFP were C2-C3-B2 it could move from Crest status directly INTO B2 at a cost of five MP (1 [Start]+2 [enter wadi]+2 [hammada COT]=5). However, it could not move from Crest CAFP C2-C3-B2 directly to Crest CAFP B2-C3-B3; it would first have to move INTO B2, then change VCA and move to Crest Status.



EX: The Crest tank in U4, whose Crest CAFP is U4-U3-V3, can move only INTO U4 or, by using Reverse movement, to U3 or V3. Its cost to go INTO U4 is three MP (1 [Start]+2 [enter wadi]=3). Its cost to enter either U3 or V3 is nine MP (1 [Start]+8 [2 [cross hedge and enter Open Ground]×4 [Reverse]] =9).

5.423 *TEM:* A Crest vehicle is HD (D4.2) at the wadi's Crest level to fire from any direction [EXC: not to Indirect Fire, OVR or Aerial attack, and not to Direct Fire that has a LOS INTO that wadi hex]. A Crest AFV (or Crest non-burning wreck) can provide a +1 TEM only to same-hex Crest Infantry who have at least one protected Crest hexside (B20.92) emanating from that vehicle's Crest CAFP—and, vs Direct Fire, only if the attacker's LOF crosses that protected-Crest-CAFP hexside. This TEM is not cumulative with the Infantry's Crest (or any other positive) TEM. A burning Crest wreck provides no TEM to any unit.

5.424 *LOS/HINDRANCE:* LOS to/from a vehicle/wreck in Crest status is drawn to/from the *center dot* of its wadi hex. An AFV/non-burning-wreck in Crest status never creates a LOS Hindrance. A burning Crest wreck creates a Smoke Hindrance/DRM in the normal manner, but only at ≥ that hex's Crest level.

EX: See the 5.3 illustration. A stationary Crest AFV in 25O8 (with its Crest CAFP indicated by the blue dot) provides a +1 TEM only for Crest Infantry who have a protected Crest hexside along hexside(s) O8-O9/O8-P8, and only vs an attack that does *not* incur the Crest entrenchment TEM (as per B20.92) or other positive TEM, and whose LOF crosses at least one of those protected Crest hexsides. If the AFV were a burning wreck, the resulting smoke would have its normal effect throughout the hex but only at ≥ Level 3.

5.425 *MOVEMENT & STACKING:* The extra MP incurred when a vehicle enters a Location that contains a vehicle/wreck (D2.14) applies in a wadi hex only when both the moving vehicle and the in-hex vehicle/wreck are IN the wadi, or when the latter is in Crest status and either hexside connected to its Crest CAFP is being crossed by the moving vehicle. A vehicle may not "occupy" a Crest CAFP that is already occupied by another vehicle, wreck or Gun.

EX: See the 5.3 illustration. Assume a Crest AFV in 25O8 (with its Crest CAFP indicated by the red dot). Another vehicle entering/leaving O8 will have to pay an extra MP as per D2.14 only if it crosses hexside O8-O7 or O8-P7.



5.4251 *BOG & IMMOBILIZATION:* A vehicle entering or leaving Crest status must make any terrain-related Bog/Immobilization DR required for moving into/INTO/within that wadi hex (e.g., for being Accessible to hammada [3.31] or sand [7.31]) only if it is also paying the COT of that wadi hex.

5.4252 *PERSONNEL:* Personnel may Abandon/unload-from their Crest vehicle in the normal manner. Those Personnel are then immediately placed in Crest status on the same side of the wadi as their vehicle. Use a ⅝" Crest counter for them in the normal manner. Personnel must be in Crest status to board a Crest vehicle [EXC: if they are Capturing it during CC as per 5.426].

5.426 *FIRE/CC:* Since a Crest vehicle is HD instead of having protected Crest hexsides, its vehicular/Passenger/Rider attacks (including the use of allowed SW; D6.1, D6.22) are never penalized as Area Fire as per B20.94. No Gun or vehicular weapon in wadi Crest status may fire at a target that is one or more full levels lower than that wadi hex's Crest level; moreover, any type of Gun not normally (as per Vehicle/Ordnance Note) allowed to fire at a lower elevation may fire only to a *higher* elevation while in Crest status [EXC to both: AAMG and mortars are not thusly restricted, nor is firing either INTO the firer's own hex or along *only* wadi hexsides, provided no VCA change is necessary in order to do so]. A Crest vehicle may be OVR by any vehicle that enters its hex (assuming the latter can otherwise OVR it). CC attacks by/vs a Crest-status vehicle/PRC are always treated for all purposes as if the vehicle were not in Crest status (i.e., a vehicle's Crest status affects neither Capture attempts vs it nor CC attacks by/vs it/its-PRC). See also 5.4-.41.

EX: See the 5.3 illustration. A Crest AFV in 25O8 (with its Crest CAFP indicated by the blue dot) may fire to ≤ level two only if it is firing a mortar or AAMG, or if firing INTO O8 or into/INTO N8—though in no case may it change its VCA (5.42). Enemy Infantry in/IN O8 could make CC attacks/Capture-attempts vs the AFV at no penalty for the latter's Crest status, nor would there be any such penalty for the AFV's CC attack vs those Infantry.

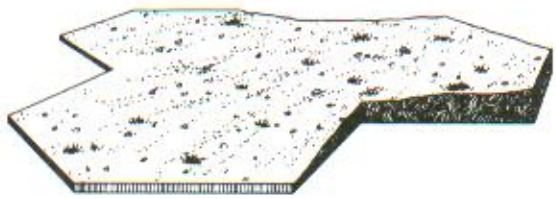


5.427 *RUSSIAN:* Should a SSR specify that vehicle Crest status is allowed in certain Depression hexes, Russian CT AFV claiming it are HD in the normal fashion when fired on but are subject to a −1 drm to the TH DR's colored dr for Location of Hit purposes (as given in B9.33).





5.43 *GUN & CREW:* A non-vehicular Gun may utilize Crest status in a non-bridge wadi hex and, provided it is unhooked, gains such status automatically when its manning Infantry do (5.4252). However, if those Infantry subsequently lose their Crest status the Gun still retains it for itself. A Crest-status Gun and its manning Infantry use a ⅝" Crest counter in the manner prescribed for Infantry; both receive the normal Crest Infantry entrenchment DRM, but only vs Direct Fire attacks that lack a LOS INTO the wadi and cross a protected Crest hexside in the normal manner. Such a *crew* may claim a Gunshield DRM in the normal manner. A Gun may be towed into/out-of Crest position; it may also be Pushed directly into, or out of, Crest status (i.e., either INTO the wadi, or into an adjacent hex) using normal Infantry Crest movement and Manhandling rules. A Gun may not set up Emplaced in Crest status (F.1A). A Gun may change its CA while in Crest status [EXC: a NT Gun must keep at least one protected Crest hexside within its CA], and is not penalized by Area Fire for firing outside of its protected Crest front (B20.94). See 5.426 for for the restrictions on what levels the Gun may fire to.





6. HILLOCKS

6.1 A hillock[11] is a terrain feature of any overlay whose ID letter is an "H", and consists of hexes shaded brown to reddish-brown. For the following rules it is important to remember that the term *hillock* refers collectively to ALL hillock hexes on the overlay, while a hillock hex is any with the appropriate terrain art.

6.2 A hillock is a somewhat different type of Half-Level Obstacle. Units on a non-Summit (6.6) hillock hex are at Level ½ (assuming the overlay is on Level 0 terrain). A hillock hex is a type of Inherent Terrain (B.6), and does not contain a hill Crest Line.



6.21 *SMOKE GRENADES:* Infantry (only) SMOKE grenades may be placed onto a hillock hex from an ADJACENT lower-level Location, and are not subject to the subsequent dr specified in A24.1.

6.3 *MF/MP:* The following movement costs apply to entering a hillock hex *from a lower elevation*: Infantry/Cavalry/Wagon, COT (usually Open Ground); any non-Wagon vehicle, one MP+COT. If entering a hillock hex from the same or a higher elevation, the entry cost for any type of unit is just the COT. E3.54 does *not* apply to changing elevation via a hillock.

6.4 *LOS:* LOS to/from/past/*over (B.4)* a hillock is determined by the elevation and entrenched/Emplaced status of the viewing and viewed units, and by the presence of any intervening Hillock Summit (6.6).[12] A non-Summit hillock hex does not block LOS to other hexes of the same hillock. For LOS purposes, a unit is considered "adjacent" to a hillock only if the LOS in question to/from that unit crosses/touches a hexside/hexspine that is common to both a hillock hex and that unit's hex, *and* that hillock hex's topmost height along that LOS is exactly a half-level higher than that unit's elevation.

6.41 *ON:* A unit (whether entrenched/Emplaced or not) on a hillock has a LOS *over* (B.4) that hillock, and also over the *next* hillock its LOS encounters. The viewing unit can also see along that same LOS *past* yet another hillock—but only to Locations that are behind but "adjacent" (6.4) to this other hillock, and beyond such Locations to ≥ the viewing unit's elevation. [EXC to all: 6.43.] See the **"Squads E and F"** entry in the 6.6 EX.

6.411 A unit (whether entrenched/Emplaced or not) on a hillock has a LOS past all walls/hedges whose topmost height along that LOS is < the viewing unit's elevation. Such a viewing unit also has a LOS past the first wall/hedge whose topmost height along that LOS equals the viewing unit's elevation—and can also see along that same LOS past a second such wall/hedge but only to Locations that are behind but adjacent to this second wall/hedge, and beyond such Locations to ≥ the viewing unit's elevation. For a Dune Crest half-level obstacle, see 7.512.

6.412 A unit (whether entrenched/Emplaced or not) on a hillock has a LOS *over* (B.4) all Rubble whose topmost height along that LOS is < the viewing unit's elevation. However, the LOS of such a viewing unit is affected by rubble whose topmost height along that LOS equals the viewing unit's elevation as if the rubble were instead a *hedge* along the second hexside of the rubble hex through which that LOS is traced; hence 6.411 applies to that LOS, and a unit properly positioned behind such a "hedge" hexside could claim hedge TEM in the normal manner vs that viewing unit on the hillock.

6.42 *ABOVE:* A unit (whether entrenched/Emplaced or not, and whether on a hillock or not) at a higher elevation than the topmost height of a hillock hex has a LOS *over* (B.4) that hillock hex. See the **"Squads DD and EE"** entry in the 6.6 EX.

6.43 A unit must be higher than the topmost height of an intervening hillock hex in order to have a LOS *past* that hillock hex to an elevation one or more full levels lower than that hillock hex's topmost height. A unit must be at least as high as the topmost height of an intervening hillock hex in order to have a LOS *past* that hillock hex to entrenched/Emplaced units behind but "adjacent" to that hillock hex.

6.44 *BEHIND:* In addition to the applications of Reciprocity (A6.5) for the LOS given in 6.4-.43, a non-entrenched, non-Emplaced unit that is "adjacent" (6.4) to a hillock has a LOS *past* that hillock—and can also see along that same LOS *past another* hillock to Locations that are behind but "adjacent" to this other hillock. [EXC to all: 6.43.] (See the **"Squad A"** entry in the 6.6 EX.) For an "adjacent" viewing unit that is entrenched/Emplaced, apply Reciprocity to the LOS given in 6.41-.43 and see the **"Squad B"** entry in the 6.6 EX. For a unit (whether entrenched/Emplaced or not) that is neither on, above nor "adjacent" to a hillock, apply Reciprocity to the LOS given in 6.41-.44 and see the **"Squads C and D"** entry in the 6.6 EX.

6.5 *TEM:* Non-PRC unit(s) may claim a +1 TEM (or HD status) vs Direct Fire that is traced across/along a hexside of a hillock as it enters their hex, provided that hillock hex's topmost height along that LOF is a half-level *higher* than the elevation of the target and the LOF did not go *over* (B.4) that hillock hex. A hillock (hex) provides no TEM or HD status vs Indirect Fire. Being *on* a hillock does not by itself negate FFMO or Interdiction. See the entries in the 6.6 EX that have asterisked squad IDs.

6.51 *HEIGHT ADVANTAGE:* A unit on a hillock can claim Height Advantage vs Direct Fire (B10.31; D4.22) if at least one full level higher than the attacker, but cannot be HD to that attack.



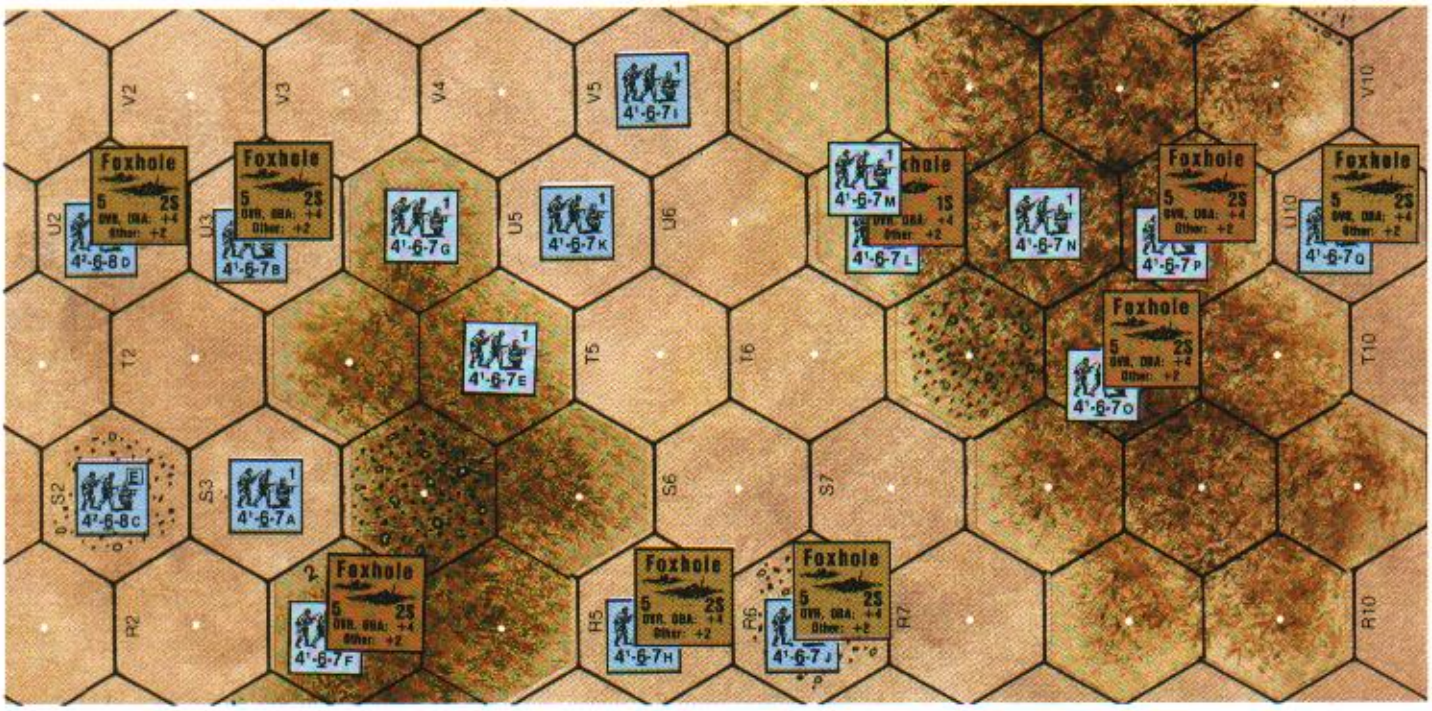
6.52 *AFV/WRECK TEM & HINDRANCES:* An AFV/wreck on a hillock can provide a +1 TEM in the normal manner. A "half-level" Hindrance (as defined in 4.51), whether on a hillock or not, can affect LOS/LOF to/from/across a hillock hex only if both the firer's and target's elevations are within a half-level of, and the elevation of at least one of those units is ≤ that of, the Hindrance's Base Level [EXC: a "half-level" Hindrance in a deir; 4.51]. See the entries for **"Squads E and F"**, **"Squad H"**, **"Squad K"** and **"Squads DD and EE"** in the 6.6 EX.



6.53 *FIRE LANE:* A Fire Lane has no effect on units (including Vulnerable PRC and Horses—but *excluding* Cavalry Personnel) that are at least a half-level lower than the Fire Lane in their hex, nor does a "half-level" Hindrance (as defined in 4.51) whose Base Level is at least a half-level lower than a Fire Lane in its hex affect that Fire Lane. See the **"Squads E and F"** entry in the 6.6 EX.



6.6 *HILLOCK SUMMIT:* Overlays H1 and H4 each contain a hex the color of level-one hill terrain. Such a hex is termed a Hillock Summit hex, and represents one hillock upon another with a total obstacle height of one level. A Hillock Summit is treated as a normal hillock that rises from Level ½ instead of from Level 0. Therefore, a unit on, above or behind a Hillock Summit can see to/from/past Hillock Summits using 6.4-.44, treating the Summits as higher-level hillocks. See the entries for **"Squads CC and FF"** and **"Squads DD and EE"** in the 6.6 EX. Use a Hillock Summit counter to mark a SSR-specified Summit.



EX: [View the illustration at the top of this page as a continuation of the one opposite it on the facing page. Note that they represent two boards butted together.]

If squad A moves into squad F's hex it pays only one MF (Open Ground COT). If squad A were in a wadi, it would pay two MF to enter squad F's hex. If squad A were instead a tank, it would expend two MP to enter squad F's hex (1 [Open Ground COT]+1 [enter hillock from lower elevation]=2). If this tank were in a wadi it would expend six MP to enter squad F's hex (1 [Open Ground COT]+4 [ascend a level]+1 [enter hillock from lower elevation]=6). If this tank were in a deir it would expend three MP to enter squad F's hex (1 [Open Ground COT]+1 [exit deir hex via Lip Hexside]+1 [enter hillock from lower elevation]=3).

Below are listed the LOS and protective benefits of *some* of the units shown. To determine such for units not specifically listed, apply Reciprocity (A6.5) or substitute listed units that are in equivalent positions.

Squad A has a LOS to squads C, D, E, F, G, I, J, K*, L, M, N, O, P, R*, U, V, W, X, DD and EE only. Note that squad A would have a LOS to squad I even if hex oT4 were not a hillock hex.

Squad B has a LOS to squads C, D, E, F, G, L, M, N, O, P, DD and EE only.

Squads C and D have a LOS to each other, and to squads A, B, E, F, G, K*, L, M, N, O, P, DD and EE only.

Squads E and F have a LOS to each other, and to all other squads *except* Z, AA and BB. Only squad Y can claim the hillock TEM vs a Direct Fire attack by squad E or F. Squad E's LOS to squad O would be affected by *any* Hindrance in hex oT7, but not by a "half-level" Hindrance (4.51) in T5/T6. A Fire Lane counter placed in hex oR9 by squad F would attack moving units in oR4, oR8 and oR9, and might be affected by any Hindrance(s) therein—but in hexes R5-R7 could affect only moving Cavalry Personnel (not their horses), and could not be affected by any "*half-level*" Hindrances in in those hexes. Squad F could not place a Fire Lane counter in any non-adjacent, level 0 hex since that Fire Lane would not lie along a Continuous Slope.

Squad H has a LOS to squads E, F, G, J, L, M, N, O, P, R*, U, V, W, X, DD and EE only. Squad H's LOS to squad N would be affected by any Hindrance in hex(es) S6/S7/T6/oT7.

Squad I has a LOS to squads A*, E, F, G, J, K, L, M, N, O, P, R*, U, V, W, X, DD and EE only.

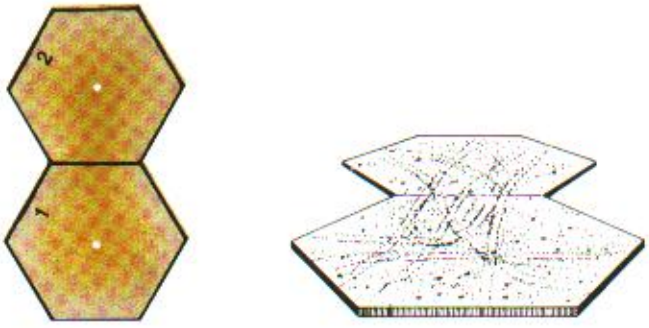
Squad J has a LOS the same as squad I, but can also see squad H.

Squad K has a LOS to squads A*, C, D, E, F, G, I, J, L, M, N, O, P, R*, U, V, W, X, DD and EE only. An AFV/wreck beneath a Trench counter in U3 would be out of squad K's LOS, and thus would not Hinder its LOS to squad D.

Squads CC and FF have no LOS to each other since the latter is entrenched.

Squads DD and EE on the Hillock Summit have a LOS to all other squads—none of which receive any hillock TEM vs an attack by squads DD/EE. Squad EE is the only one in the illustration that can claim Height Advantage (though not vs any squad that is on a hillock). A "half-level" Hindrance in hex oL6 *would* affect the LOS between squads DD/EE and T, but one in hex L8 would not since squads DD and EE are more than a half-level higher than L8's Base Level. If hexes oM7 and oU8 were both Hillock Summit hexes, squads DD and EE would have no LOS to squads B, D, G, K, or L (6.41), nor to squads A, C, I, Q, and S (6.43); however, they would still have all other squads in their LOS, and only squad M would receive a Hillock TEM vs their Direct Fire.

*Denotes that this squad can claim the hillock TEM vs a Direct Fire *(i.e., not mortar/OBA)* attack (6.5) by the viewing squad (assuming the firer were British).



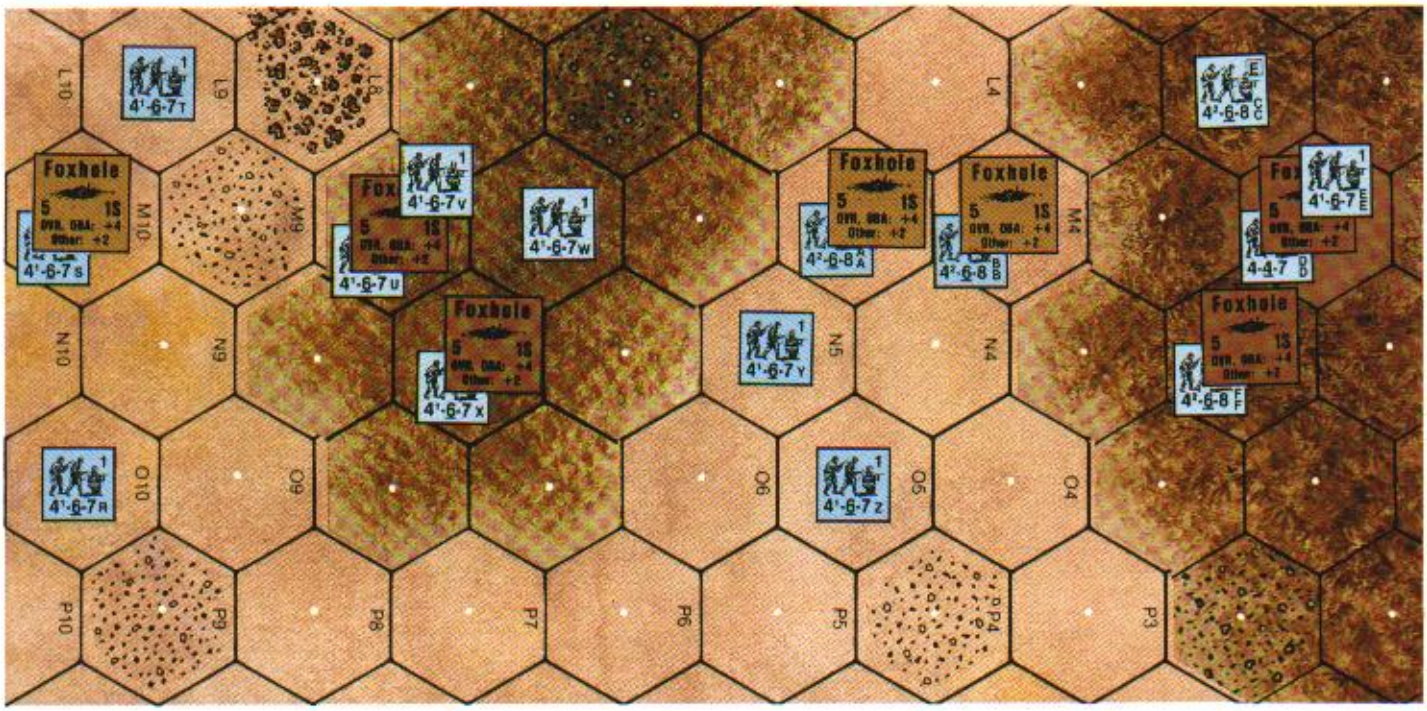
7. SAND

7.1 Sand[13] is a terrain feature of any overlay whose ID letter is an "S", and is represented by golden-yellow terrain.

7.2 Sand is neither a Hindrance nor an obstacle [EXC: Sand Dune; 7.5] to LOS and, except as affected by the presence of other terrain such as scrub (2.2) or a Dune Crest (7.51), is treated as Open Ground (1.1) for all purposes *other than* Hammada Immobilization (3.31), movement costs (7.3), Sand Bog (7.31), the resolution of certain attacks (7.4), Gun Emplacement (7.41), Fortifications (7.42-.421), and when Accessible to Broken Ground (13.1). Sand in the target hex does not negate FFMO or Interdiction unless a Dune Crest TEM applies.

7.3 *MF/MP:* The following movement costs apply to entering a sand hex: Infantry, one MF+COT (usually Open Ground); Cavalry or Wagon, two MF+COT; full-tracked vehicle, two MP+COT; halftrack, three MP+COT; armored car or motorcycle, four MP+COT; truck, six MP+COT. [EXC: all these *non-COT* MF/MP costs are reduced by one if EC are Wet or Mud.]

EX: It normally costs Infantry two MF to enter a sand hex (1 [sand]+1 [Open Ground]=2); however, if EC are Wet or Mud it costs only one MF (0 [Wet/Mud sand]+1 [Open Ground]=1). Likewise, a tank normally pays three MP to enter a sand hex, but if EC are Wet or Mud it pays two MP (1 [Wet/Mud sand]+1 [Open Ground]=2). If the sand hex also contains scrub, regardless of EC the Infantry MF costs remain unchanged (since Infantry expend the same MF for entering scrub as for entering Open Ground) but the tank must pay one extra MP (2 [scrub] instead of 1 [Open Ground]).



BOG DR ≥ 12

7.31 *BOG:* A sand hex is also a type of Bog hex. A vehicle (including a Wagon, but excluding a Motorcycle) must make a Sand Bog DR when it enters (or changes VCA in) either a sand hex (even if that hex also contains scrub) *or an Open Ground hex that is Accessible to a sand hex* [EXC to both: if following a Track (9.1) or road]. The vehicle bogs if the Final DR is ≥ 12. *Only* the following cumulative DRM can apply:

DRM	Cause
+2	If the vehicle has High Ground Pressure;
+1	If the vehicle has Normal Ground Pressure;
+1	If the vehicle is not fully-tracked;
+1	If the vehicle expends MP as a truck, weighs ≥ 4 tons, and is *not British-built**;[14]
+1	If the vehicle entered its present hex via a Dune Crest hexside (7.51);
−1	If the vehicle is in an Open Ground hex that is Accessible to a sand hex;
−1	If EC are Wet or Mud.

* *British-built* is defined as being a British-color counter without "(a)" [which denotes U.S. manufacture] in the piece name.

Being thusly Accessible to > one sand hex necessitates only one Sand Bog DR. If changing VCA, one Sand Bog DR is required for each hexside changed. A Sand Bog check is made only after passing any required Hammada Immobilization check (3.31). In lieu of calculating the above DRM, players may find it easier to use the following table:

SAND BOG DR[a]

Original DR ≥ #[b] = Bog

Ground Pressure	Non-Brit.-Built tr[c] In Sand	Non-Brit.-Built tr[c] In Access. OG[d] Hex	Brit.-built tr; AC; ht In Sand	Brit.-built tr; AC; ht In Access. OG[d] Hex	Full-Track In Sand	Full-Track In Access. OG[d] Hex
Low	10[e]	11	11[e]	12	12[e]	NA
Normal	9[e]	10	10[e]	11	11[e]	12
High	8[e]	9	9[e]	10	10[e]	11

[a] NA if following a track or road.
[b] Increase # by one if EC are Wet or Mud.
[c] (And weighing ≥ 4 tons).
[d] [EXC: hammada; sand.]
[e] Lower # by one if the present hex was entered via a Dune Crest (7.51) hexside.

7.311 *BOG REMOVAL:* Normal Bog Removal procedures (D8.3) apply to a vehicle that has become bogged due to sand.

7.4 *TEM:* Sand has a 0 TEM, but *any* ordnance [EXC: use of the Vehicle Target Type; a Direct Hit vs a Gun (C11.4); a Specific Collateral Attack], or OBA, attack vs an unarmored target in a sand hex has its FP halved (FRU) *on the IFT* after all other modifications [EXC: a CH is doubled, not halved; C3.71]. If hit by Bombardment, units/weapons in sand receive a −2 DRM to their MC. [EXC to all: If EC are Wet or Mud, these penalties do not apply.]

EX: Assume EC are not Mud or Wet. A 105mm Gun using the Infantry Target Type Direct-Fires HE at an Emplaced Gun in sand and gets a non-CH hit. The ensuing IFT DR is made on the 20 FP column to see if a Direct Hit (C11.4) was achieved. If it was not, a Near Miss occurred and is resolved on the 8 FP column (using any applicable gunshield DRM). If the 105 hit using the Area Target Type instead, the occurrence of a non-CH Direct Hit would be checked for on the 8 FP column and, if not achieved, the Near Miss would then be resolved on the 4 FP column.

EX: Assume EC are not Mud or Wet, and no CH. An 80+mm OBA HE Concentration attacks a sand hex using the 8 FP column of the IFT—but if it were a Barrage (E12.1) it would use the 6 FP column (16 FP lowered to 12 [as per E12.5], then halved). A 100+mm OBA HE Concentration attacks a sand hex using the 8 FP column—but if it were a Barrage it would still be resolved on the 8 FP column (20 FP lowered to 16, then halved).

7.41 *EMPLACEMENT:* A non-vehicular Gun may set up Emplaced in sand (F.1A); however, the Emplacement TEM is halved to +1 [EXC: if EC are Wet or Mud it retains normal TEM] even vs CH and for determining sniper targets.

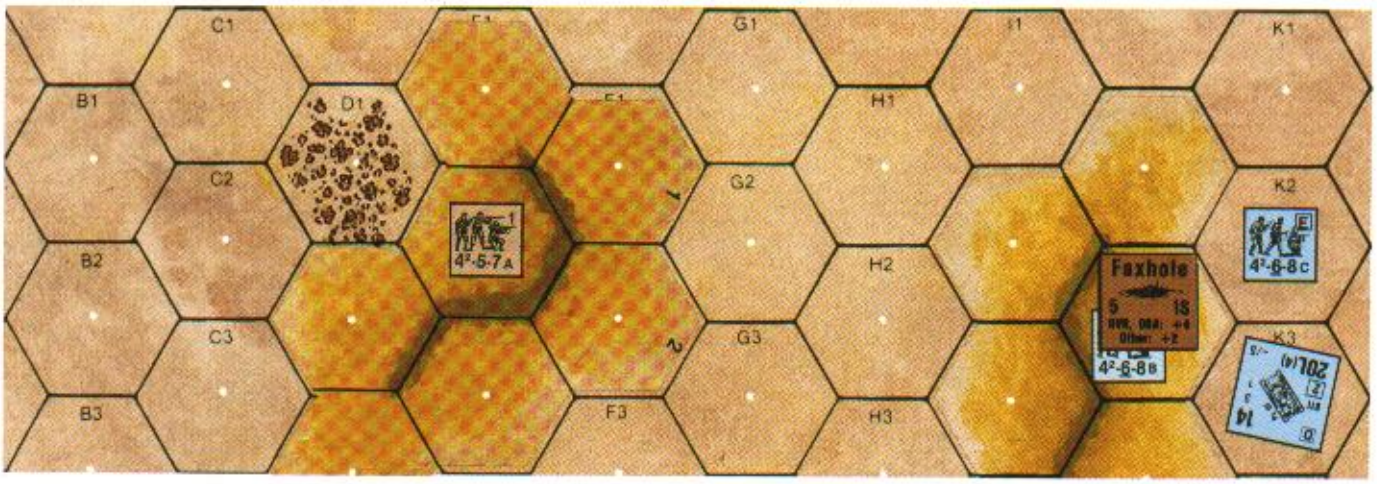


7.42 *FORTIFICATIONS:* No pillbox, trench or sangar (8.2) may be set up in sand. A foxhole in sand has its normal TEM halved (i.e., +2 vs OVR and OBA; +1 vs most other types of attack) [EXC: if EC are Wet or Mud it retains normal TEM]. Moreover, if a squad (or its equivalent) that is in a foxhole in sand is eliminated by a HE [EXC: AP HE Equivalency] Final KIA result (or multiple K in a Random Selection tie dr) caused by Direct or Indirect Fire of ≥ 70mm, DC, or bomb attack, that foxhole counter's capacity is reduced by an amount equal to the total number of squads/equivalents eliminated. If < a squad is thusly eliminated, the foxhole counter is not affected. The complete elimination of a Foxhole counter leaves all surviving pieces devoid of foxhole benefits. Elimination due to a sniper attack or failure of any MC has no effect on foxhole capacity.

EX: A squad, HS and SMC are in a 2S foxhole. If, after the proper application of foxhole TEM, one of the attacks mentioned above eliminates the squad (or the squad *and* the HS/SMC), the foxhole is reduced to a 1S capacity. If instead just the HS/SMC are eliminated, the foxhole is not affected. If the attack has a K result but Random Selection chooses both the squad and the HS, the foxhole is reduced to 1S capacity. If the foxhole instead contained two squads and both were eliminated, the Foxhole counter would be completely eliminated (regardless of whether or not a SMC was beneath it).



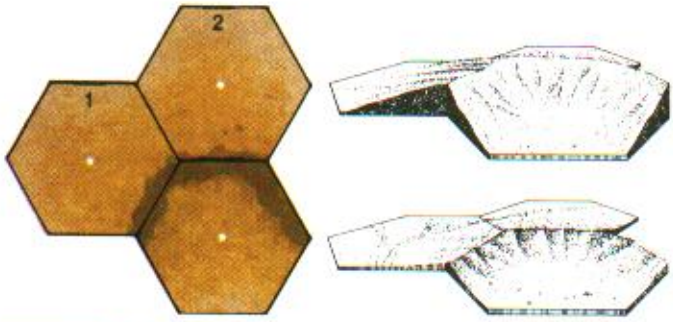
7.421 *ENTRENCHING:* The +2 DRM for Entrenching Attempts (F.1B) does not apply in a sand Location.



EX: Assume that both dunes are Low and EC are Dry. *Squad A* has a LOS to all hexes in the illustration except for K2 and K3, because the Dune Crest hexsides of the dune squad B occupies affect LOS like a wall (but allow LOS to/from an entrenched unit adjacent to them; 7.512). Thus, where squad A's LOS crosses a Dune Crest hexside of squad B's dune, it can also see past those hexsides but only to Locations at ≥ Level ½ (where reciprocal LOS would apply; 6.41). *Squad B* can see all hexes in the illustration except for B1, B2, C1, C2, C3 and D1. *Squad C* can see all hexes in the illustration in hexrows I-K, only those numbered ≤ 1 in hexrows E-H, and hexes D0, C1 and B0. If squads A and B use Direct Fire vs each other, both receive a +1 TEM—Squad A for being directly behind the Dune Crest when fired on from no higher than that Crest's topmost height, and Squad B for being in a foxhole in sand (7.42). If they use could Indirect Fire vs each other, only squad B could receive a +TEM; squad A's TEM would be zero, thus possibly making it subject to FFMO/Interdiction.

EX: Now assume that both dunes are High. Thus squads A and B are both at Level ½ (7.5). Using hillock LOS principles and 7.512, all statements in the preceding EX still hold true except that *squad C* can no longer see hexes B0 and C1, nor entrenched/Emplaced units in D0, H1, I1 or J0 (6.44).

EX: Now assume that squad A is on a Low Dune while the dune squad B occupies is High. *Squad A* at Level 0 now has a LOS to all hexes in the illustration except for K2 and K3 (though it could not see an entrenched/Emplaced unit in K1; 6.44). *Squad B* at Level ½ can now see all hexes in the illustration (6.41). *Squad C* can now see all the hexes listed in the first 7.513 EX as being in its LOS, except for entrenched/Emplaced units in H1, I1 or J0 (6.44). If squads A and B use Direct Fire vs each other, only squad B receives a +1 TEM—and even if it were not entrenched it would receive a +1 Dune Crest TEM (7.513).



High Dune
Level ½-1

7.5 *SAND DUNES:* Any sand overlay that has darker-yellow hexside markings, and whose ID is prefixed by "SD", contains a Sand Dune (hereafter referred to as a Dune). A Dune can be SSR- or DYO-defined as one of two types: *Low* or *High*. A Low Dune comprises normal sand hexes and Dune Crest hexsides (7.51). A High Dune contains Dune Crest hexsides, but its sand hexes are treated as *hillock* (6.) hexes as well as sand hexes. A Dune hex is any sand hex on a Sand Dune overlay. A High Dune is indicated by placing a High Dune counter on the overlay.

7.51 *DUNE CREST:* The darker-yellow artwork along certain hexsides of each Dune overlay indicates that Dune's Crest hexsides.

7.511 *MF/MP:* Any type of unit crossing a Dune Crest hexside must expend one MF or MP to do so, plus the cost of the hex being entered.

EX: See the 7.513 illustration and assume Dry EC. It will cost squad C five MF to move K2-J2-I2 (2 [enter Open Ground sand hex]+1 [cross Dune Crest]+2 [enter Open Ground sand hex]=5), regardless of whether the dune is High or Low and regardless of whether K2/I2 might contain scrub. It will cost tank D seven MP to enter those same hexes if the dune is Low (3 [enter Open Ground sand hex]+1 [cross Dune hexside]+3 [enter Open Ground sand hex]=7), or eight MP if the dune is High (1 [ascend hillock]+7=8). If J2 contained scrub, the tank's cost to move K3-J2 would be four MP for a Low Dune (2 [enter sand hex]+2 [scrub COT]=4) or five MP for a High Dune. In all cases, the tank must undergo a Sand Bog DR in J2 and, if it does not bog, another in I2 (this time with a greater chance of bogging, due to having crossed a Dune Crest hexside). Moreover, the tank had to undergo a Sand Bog DR when it entered K3, due to being in Open Ground and Accessible to a sand hex; this would still be true if K3 contained scrub, but if it contained hammada the tank would *not* have been subject to Sand Bog in that hex since hammada is not considered Open Ground for this purpose (3.2).

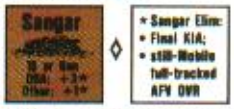
7.512 *LOS:* A Dune Crest hexside/hexspine (including its artwork) is a Half-Level Obstacle above the Dune, thus creating a total obstacle height of one level for a High Dune (i.e., making it a One-Level Obstacle) or of a half-level for a Low Dune. A Dune Crest hexside/hexspine affects LOS just as if it were a wall rising from the topmost height of that Dune. [EXC: An entrenched/Emplaced unit *can* see past a Dune Crest that forms a hexside or hexspine of its own hex to nonadjacent hexes.]

7.513 *TEM:* In addition to any halving of IFT FP as per 7.4, Non-PRC unit(s) may claim a +1 TEM (or HD status) vs Direct Fire that is traced across/along a Dune Crest hexside/hexspine/artwork as it enters their hex, provided their elevation is ≥ that of the firer. A Dune Crest provides no TEM (or HD status) vs Indirect Fire.

7.514 *WALL ADVANTAGE:* Wall Advantage (B9.32-.321) does not apply to Dune Crests.

7.515 *UNDERBELLY HITS:* Underbelly Hits (D4.3) are possible while crossing a Dune Crest hexside.

8. SANGARS



8.1 A sangar[15] is treated exactly like a foxhole except as modified herein.

8.2 *PLACEMENT:* A sangar cannot be created during play, nor may it be set up in sand (7.42). No more than one sangar may be placed per hex. A sangar has a BPV of ½.

8.3 *CAPACITY:* A sangar has the same capacity as a 1S foxhole. [EXC: One non-vehicular Gun of any size/type may be placed in, and may fire out of, a sangar. A sangar *that contains a Gun* may never also contain a squad, nor more MMC than one HS or crew. A sangar's capacity is the *total* number of units/Guns allowed beneath it, rather than a "per side" capacity as given in B27.44.] A Good Order Infantry squad (of any type/nationality) which wishes to man a sangared Gun (i.e., one beneath a Sangar counter) must Deploy (allowed automatically, regardless of leader/nationality requirements) while in/ADJACENT-to the sangar Location, but only immediately prior to entering (or at least attempting to enter) beneath the sangar in the same phase. The capacity of a sangar may not be increased.

8.4 *TEM:* A sangared unit receives a +3 TEM vs OBA (and Bombardment), and a +1 TEM vs other attacks [EXC: CC, FT]. Only a *crew* manning a sangared Emplaced Gun may claim the +2 Emplacement TEM in lieu of the +1 sangar TEM.

8.41 A Final KIA (prior to applying any Gunshield DRM) vs a sangar/its-occupants results in elimination of the Sangar counter if caused by a DC, by an OVR, by an ordnance/OBA attack of HE ≥ 70mm, or by any HE

CH. [EXC to all: AP HE Equivalency cannot cause such elimination.] OVR of a sangar by a *full-tracked* AFV causes the automatic elimination of the sangar and any Gun in it, provided the AFV was still Mobile (D.7) when its OVR was resolved. All surviving pieces are thereafter left devoid of sangar benefits.

EX: A squad and leader in a sangar are attacked by OBA. If a KIA occurs after applying the +3 sangar TEM, the sangar is eliminated regardless of which unit was KIA'd. If the OBA had achieved a CH, the unit thusly affected would receive a −3 TEM and the other a +3 TEM, but the sangar would still be eliminated.

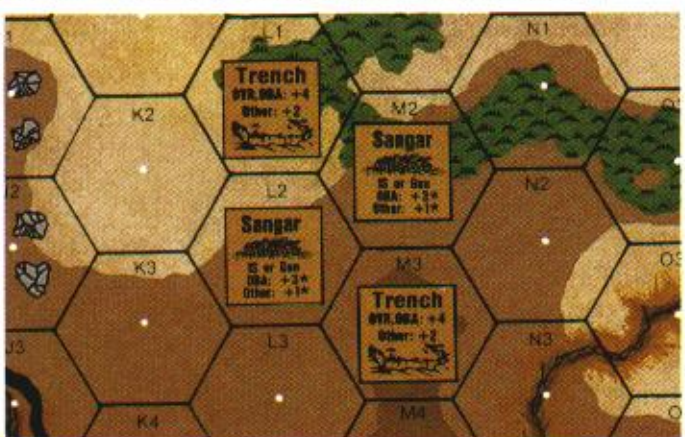
8.5 *MOVEMENT:* A vehicle may enter/traverse a hex that contains a sangar at no extra movement cost for the sangar's presence [EXC: if a trench is Accessible to that sangar as per 8.6, the sangar hex's COT is doubled].

8.51 *UNDERBELLY HITS:* A *full-tracked* AFV OVRing a sangar is vulnerable to Underbelly Hits (even from within that sangar) as per D4.3. [EXC: The AFV is considered to be in the sangar's Location, but the LOS for an Underbelly Hit attempt is drawn to a vertex of the hexside the AFV is crossing; if the AFV becomes Immobile or destroyed, it is left in the sangar's Location.] Vulnerability to Underbelly Hits no longer applies after the OVR is resolved.

8.52 *GUN:* Provided it does not exceed sangar stacking capacity (8.3), a Gun may enter a sangar during play—but only by being successfully Pushed (C10.3) into it from the sangar's Location, using its +1 TEM and one-MF (doubled to two for Pushing) entry cost. Hence a Gun must be Pushed out of a sangar before it can be loaded-on/hooked-up-to a vehicle. Any additional MMC wishing to help Push it may do so despite not being in the sangar.



8.6 *TRENCH:* Infantry beneath a Trench or Sangar counter may move/rout/advance/Withdraw-from-CC directly to any Accessible, non-Crest-status *lower-elevation* Location without having to first exit to above that trench/sangar.[16] Such a move/rout/advance/CC-Withdrawal in the opposite direction, from a non-Crest-status position to beneath an Accessible higher-elevation trench/sangar, is also allowed *if* that Infantry unit and trench/sangar are in the same side's OB and/or the unit's side Controls the trench/sangar. In addition, if a Trench counter and Sangar counter are Accessible to each other, Infantry may move/rout/advance/Withdraw-from-CC from beneath one to beneath the other as if both were trenches (in the same manner as a Bunker; see B30.8) regardless of which side set-up/Controls the one being entered. A Snap Shot taken at a unit that is utilizing the movement benefits of such a trench/sangar/bunker is subject to *Trench* TEM. If a sangar already contains its maximum stacking capacity, a unit wishing to enter that sangar hex must first exit to above any trench it may currently be in and may not utilize trench/sangar movement/TEM benefits to enter that hex. This rule (8.6) does not apply to Infantry Pushing a Gun.



EX: An entrenched Infantry unit in M3 can, if not Pushing a Gun, move/rout/advance/Withdraw-from-CC directly to beneath either sangar at a cost of one MF without losing the protective benefits of the Trench/Sangar counter(s), or it can thusly enter any *lower-level* Location adjacent to M3 without first having to exit above the trench. If the unit is sangared in L2 it can enter M3 (two MF), L1 (one MF) or K2 (one MF) without first having to exit above the sangar (though it could be subject to FFMO/Interdiction in K2); however, it would have to exit above the sangar before it could enter K3, L3 or M2 (and once in M2 would have to expend another MF to enter beneath that sangar). If the unit is sangared in M2 it can enter L1 or M3 in the same manner as entering them from L2, or it can enter M1 at a cost of two MF without first having to exit above the sangar; it must, however, exit above the sangar before it can enter N1, N2 or L2. An Infantry unit in K2 which wishes to move/advance, etc. beneath the sangar in L2 can, *if* that unit's side had set up and/or presently Controls that sangar, expend two MF and enter L2 going directly beneath the sangar; and the same would hold true for Infantry in M1, or non-entrenched Infantry in L1, wishing to enter the M2 sangar—but Infantry entrenched in L1 could enter the L2/M2 sangar regardless of which side set-up/Controls that sangar. If the L2/M2 sangar already contains a squad, an Infantry unit wishing to enter beneath it must first exit above the trench it might be in, cannot claim Trench movement/TEM as it enters the sangar hex, and once in the sangar hex cannot go beneath the sangar. An Infantry unit entrenched in M3 can enter INTO N3 (three MF) without first having to exit above the trench (and could be subject to FFMO/Interdiction IN N3), but would first have to exit above the trench if it wished to *directly* enter Crest status in N3 without first going INTO it; conversely, only from IN N3 can the unit enter M3 (four MF) going directly beneath the trench—and even then only provided that unit's side had set up and/or presently Controls that sangar. The preceding sentence would still apply if M3 were a level 1 hex (though the MF costs would then differ).

9. TRACKS



9.1 Tracks[17] are not depicted on the mapboard; instead they are defined by SSR and indicated by placing a Track counter at each end of the track (usually a board-edge hex). A track lowers the MF/MP costs of entering a hex by one to a minimum of one, after all modifications except any for:

- SMOKE (A24.7);
- Infantry, Cavalry or Wagon entering a higher-elevation Location (B10.4);
- presence of an AFV/wreck (D2.14);
- Weather (E3.);
- Towing a Gun (including Convoy movement; E11.2);
- Vehicle/Heavy (-or-denser) Dust (11.73-.74).

9.2 A track is not a road, but a track (as well as a road) eliminates the need for Bog/Immobilization DR due to sand (7.31) or hammada (3.31) [EXC: Bog can still apply during Mud; 11.8]. A track does not negate the IFT effects of hammada (3.4) or sand (7.4). At night, a unit may "follow" a track as per E1.531.

EX: Infantry entering a non-scrub sand hex across a track hexside expend one MF instead of two. Infantry entering a hammada hex across a track hexside still expend one MF. Infantry crossing a track hexside while moving from level 0 to a level 1 Open Ground hex still expend two MF (though they would have to expend three MF if that level 1 Location contained SMOKE). A truck entering a hammada hex across a track hexside expends five MP instead of six; if the truck is towing a Gun and/or moving in Convoy it expends six MP instead of seven. In neither case is the truck subject to Hammada Immobilization while in that hex (or while on a track in an Open Ground hex that is Accessible to hammada). A crew pushing a Gun across a track hexside into a non-scrub sand hex expends three MF instead of four (and three MF is used for Man-handling DR purposes). A tank crossing a track hexside while ascending to an Open Ground hillock hex expends one MP instead of two.



9.3 *ROADS:* Barring SSR, the only roads on boards 25-31 are those printed on board 25 and Overlay E1. SSR-specified roads may be indicated by placing (Paved) Road counters as per 9.1.

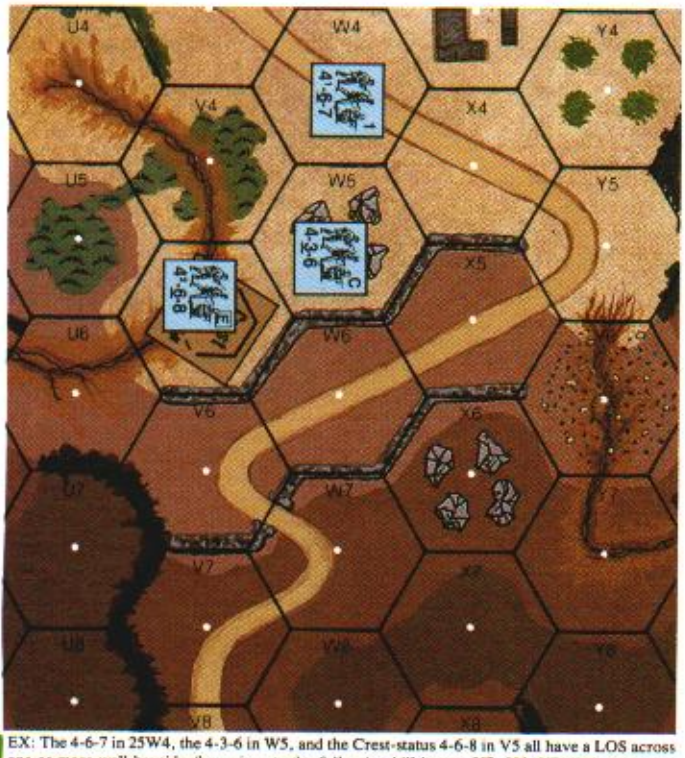




10. HILLSIDE WALLS & HEDGES

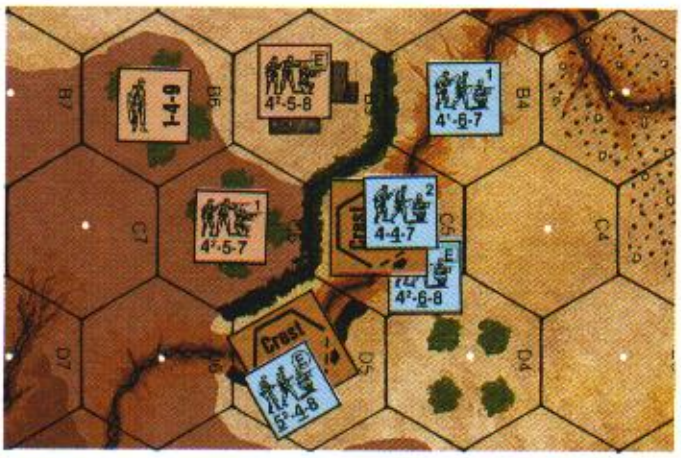
10.1 A Hillside wall/hedge is one which lies along a hexside that is common to two adjacent hexes with different Base Levels, with none of the lower Base-Level's terrain appearing between the wall/hedge depiction and the higher Base-Level's terrain depiction. Examples of Hillside walls/hedges are 25B4-B5, 25C5-C6, 25U3-U4, 25V9-W9, 25X4-X5, 8M4-M5, 8X3-X4, 12X4-Y4, and 13S4-S5. All normal wall/hedge rules apply to Hillside walls/hedges except as modified herein.

10.2 *LOS:* A Hillside wall/hedge (including both its depiction and its associated hexside; B9.1) is ignored when determining whether or not a LOS exists between units whose elevations differ by ≥ one full level [EXC: a unit entrenched behind a Hillside wall/hedge still has its LOS restricted as per B9.21]. It is likewise ignored when determining the number of Blind Hexes created by a Crest Line. If a hill Crest Line ends at a Hillside wall/hedge, *the line along which the hill depiction meets the wall/hedge depiction* is considered to be the actual Crest Line.



EX: The 4-6-7 in 25W4, the 4-3-6 in W5, and the Crest-status 4-6-8 in V5 all have a LOS across one or more wall hexsides/hexspines to the following hill hexes: U7, V6, V7, W6, W7, W8, X5, X6 and X7 (although they could see entrenched units in V6/W6/X5 only if adjacent to them). A unit IN V5 would have a LOS to all those same hexes [EXC: not to any entrenched unit(s) in X5]. The 4-6-7 also has a LOS to the Crest level of Y7. The 4-3-6 also has a LOS to Y5. In no case could any of these units claim wall TEM vs an attack coming from any of these in-LOS hill hexes.

10.3 *ELEVATION, TEM & WALL ADVANTAGE:* A Hillside wall/hedge is always at the *higher* of the two Base Levels it lies between, and is treated as a normal wall/hedge when calculating the TEM of targets at ≥ the wall/hedge's base elevation. However, a unit at any level *lower* than that on which a Hillside wall/hedge sits never receives *any* benefit (including Wall Advantage; B9.32) from that wall/hedge hexside. A unit in Crest status may claim Wall Advantage over a Hillside wall/hedge that forms a hexside of that unit's hex only if both are at the same elevation and on the same side of the Depression. Otherwise, a unit's inability to claim Wall Advantage over a Hillside wall/hedge hexside does not prevent it from claiming Wall Advantage over another wall/hedge hexside, provided the unit meets all the other B9 criteria for doing so.



EX: The 4-6-7 IN 25B4 can claim neither hedge TEM vs, nor Wall Advantage over, the 4-5-8 in B5, nor can it claim hedge TEM vs the 4-5-7 in C6; however, the 4-5-8 could receive such benefits, and the 4-5-7 could claim hedge TEM, vs the 4-6-7 because both British squads are directly behind, and at the same level as, a Hillside hedge (hexside C5-C6 in the case of the 4-5-7).

(If the 4-6-7 were in Crest status with its center protected Crest hexside at B4-A5 or B4-B5, then it could, if having Wall Advantage, claim hedge TEM vs the 4-5-8/4-5-7 since it would be at the same level as, and directly behind, the hedge. If it claimed Wall Advantage it could not also claim entrenchment TEM vs the 4-5-8 [B9.31], but if it did not claim Wall Advantage while in Crest status, the 4-5-7's attack vs it would still be affected by the B4-B5 hedge TEM [B9.3]. Regardless of whether or not the Crest 4-6-7 claimed Wall Advantage, the 4-5-7's attack vs it would not be affected by entrenchment TEM [B20.92].)

Neither the 4-6-8 IN C5 nor the Crest-status 4-4-7 in C5 can claim hedge TEM vs, or Wall Advantage over, the 4-5-7 because both German squads are lower than the C5-C6 hedge's base elevation. If the hero in B6 attacks the C5 Germans, the 4-4-7 (but not the 4-6-8) can claim the B5-C5 hedge TEM (B9.3). (The C5-C6 level-one hedge cannot affect that attack by the hero.)

Provided neither the 4-5-8 nor the 4-5-7 were already marked with a Wall Advantage counter, the 4-4-7 *could* claim Wall Advantage over the B5-C5 hedge even though it cannot claim it over the higher-level C5-C6 hedge.

If the 4-5-8 fires at the Crest-status 5-4-8 in D5, the latter cannot claim hedge TEM since it is a level lower than hexsides C5-C6 and D5-C6.

11. ARID CLIMATIC CONDITIONS

11.1 The rules in this Section may or may not be applicable to a given scenario, depending on a variety of circumstances (such as the scenario's EC and whether or not it is DYO). Listed below are the types of scenarios in which these rules can/do apply. See each individual rule for specifics on when and how it actually does come into effect.

ARID CLIMATE SUMMARY

RULE	MAY BE APPLICABLE/IN-EFFECT ONLY WHEN
Arid Weather Chart (11.2) Arid EC Chart (11.4) Arid Wind Force Chart (11.5)	DYO scenario is set in an Arid Land (North Africa, Middle East, Mediterranean isles, or East Africa; see 11.2).
Time of Day Table (11.3)	DYO scenario uses ≥ one Desert Board (F.1).
Sun Blindness (11.61-.612)	Daytime scenario uses ≥ one Desert Board, and Weather is not Overcast (or Mud and Overcast).
(Intense) Heat Haze (11.62-.624)	Daytime scenario is set in North Africa (11.2), uses ≥ one Desert Board, and Weather is not Overcast (or Mud and Overcast).
Heavy, Very- or Extremely-Heavy Dust (11.73-732) Wind/Gust effects on Dust (11.76-.761)	Scenario uses *only* Desert Board(s), EC are Dry or Very Dry, and Steppe Terrain (13.2) is not in effect.
DYO Dust Table (11.701) Light/Moderate Dust (11.71-.72) Vehicle Dust (11.74) FFE Dust (11.75)	Scenario uses ≥ one Desert Board, and EC are Dry or Very Dry [EXC: Very Dry *only*, if Steppe Terrain is in effect].
Desert Mud (11.8)	Scenario is set in an Arid Land (see 11.2), uses *only* Desert Board(s), and Mud is in effect (11.2; 11.4).

11.2 The following chart is used in lieu of the E3 Temperate Weather Chart to determine the Weather of a DYO scenario set in an Arid Land (defined as North Africa [Egypt, Libya, Tunisia, Morocco or Algeria], the Middle East [Syria, Lebanon, Palestine, Iraq or Persia], the islands of the Mediterranean, or East Africa)—even if it uses any/all non-Desert Board(s).

ARID WEATHER CHART

DR	April	May-Sept	Oct,Nov	Dec-March
2	Mud	Clear	Mud	Clear & Gusty
3	Clear & Gusty	Clear & Gusty	Clear & Gusty	Clear & Gusty
4	Clear & Gusty	Clear	Clear	Clear
5	Clear	Clear & Gusty	Clear	Clear
6	Clear	Clear	Clear	Clear & Gusty
7	Clear & Gusty	Clear	Clear	Overcast
8	Clear	Clear	Clear & Gusty	Overcast
9	Clear	Clear & Gusty	Overcast	Mud
10	Overcast	Clear	Overcast	Mud & Overcast
11	Overcast	Clear	Clear	Mud & Overcast
12	Mud & Overcast	Overcast	Mud & Overcast	Mud & Overcast

11.3 *TIME OF DAY:* In a DYO (only) scenario using ≥ one Desert Board, a Time of Day[18] dr is made prior to setup (after rolling for Weather but before any DR for EC), invoking the appropriate rules as per the following table. If the Weather is Overcast, or Mud and Overcast, treat any result other than "Night" as "None". With mutual player consent, a "Night" result may be treated as a "None" result instead.

TIME OF DAY TABLE

dr	Result	Effect
1	Early Morning	* Sun Blindness (11.611) is in effect. If the scenario is set in Nov-April, Mist (E3.32) is also in effect. EC are automatically Moist (or wetter); 11.6111.
2	Mid Morning	*† Intense Heat Haze (11.621) is in effect if the scenario is set in May-Sept. Otherwise, Heat Haze (11.62) is in effect.
3	Midday	*† Intense Heat Haze (11.621) is in effect.
4	Mid Afternoon	*† Heat Haze (11.62) is in effect.
5	Late Afternoon	* Sun Blindness (11.612) is in effect.
6	Night (other)	Section E1 (or "None", if both players agree) is in effect.

* "None" in effect if Weather is Overcast (or Mud & Overcast).
† "None" in effect if scenario is *not* set in North Africa (11.2).

11.4 *ENVIRONMENTAL CONDITIONS:* The following chart is used in lieu of the B25.5 EC Chart to determine the EC of a DYO scenario set in an Arid Land (11.2)—even if it uses any/all non-Desert Board(s).

ARID EC CHART

dr	EC	EC DRM/drm	Month	drm
≤ 1	Mud	−3	Dec-March	−1
2	Wet	−2	April-Sept	+3
3	Moist	−1		
4	Moderate	0		
5	Dry	+1		
≥ 6	Very Dry	+2		

11.5 *WIND FORCE:* The following table is used in lieu of the B25.63 Wind Force Table to determine the initial Wind Force of a scenario set in an Arid Land (11.2)—even if it uses any/all non-Desert Board(s).

ARID WIND FORCE TABLE

dr	Wind Force	Result
1	No Wind	No Wind Direction DRM
2-5	Mild Breeze	Wind Direction DRM & Dispersed Smoke
6	Heavy Wind	Automatic Spread Downwind; None Upwind

11.6 *DESERT LOW VISIBILITY (DLV):* DLV is the term used to categorize *Sun Blindness* (11.61), *Heat Haze* (11.62-.621), and both *Light and Moderate Dust* (11.71-.72). A DLV Hindrance is treated exactly like a LV Hindrance (E3.1) unless stated otherwise. A DLV Hindrance does not apply (i.e., is not counted) when determining if LOS is blocked as per B.10.

11.601 *HIP/CONCEALMENT:* When any type of DLV is in effect, an entrenchment using HIP in Concealment Terrain is revealed solely due to LOS (as per A12.33) only if the enemy viewing unit is within six hexes of it, and Concealment Terrain ≥ 17 hexes from all unbroken enemy ground units is treated as being out of LOS for Infantry/Emplaced-Gun "?"*gain* (only) purposes. [EXC: If the only DLV in effect is Sun Blindness (11.61), this rule (11.601) applies only if the HIP-entrenchment/unit-seeking-"?" is in the Sun Blindness Zone of all such enemy units.]

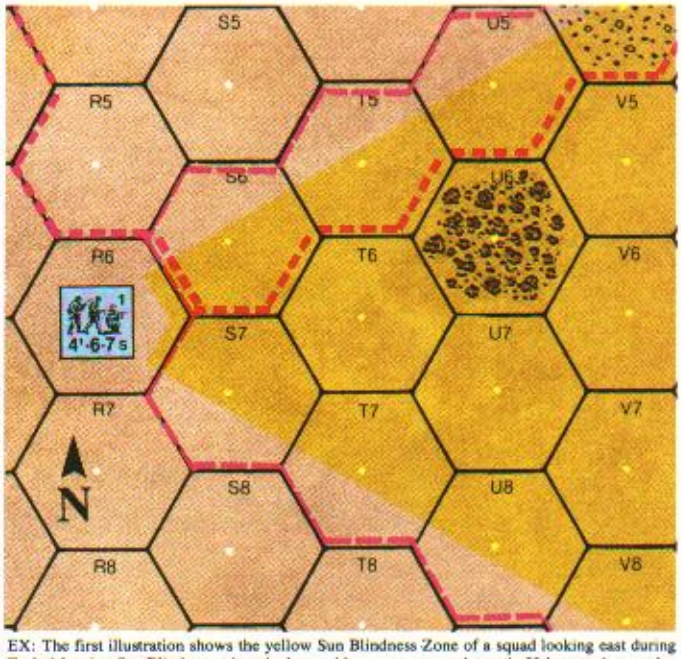


11.61 *SUN BLINDNESS:* Sun Blindness can occur only in a scenario that uses ≥ one Desert Board and whose Weather is currently not Overcast (or Mud and Overcast). Whenever these conditions are met *and* a SSR or Time of Day dr (11.3) specifies Sun Blindness, the following rules are in effect:

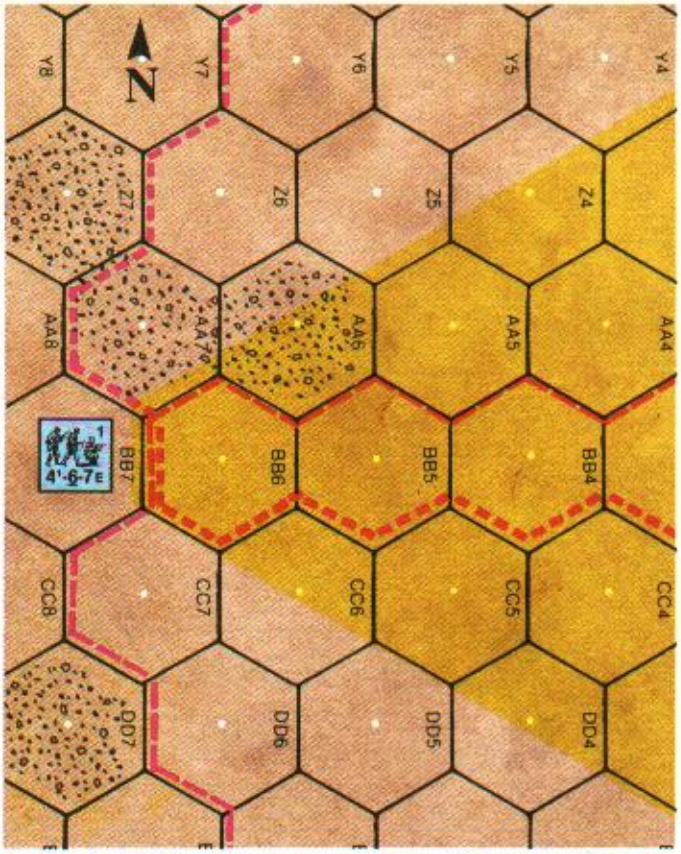
11.611 *EARLY MORNING:* If Early Morning, each TH (and non-ordnance IFT) DR [EXC: OBA; DC; FT; Fire Lane; Specific Collateral Attack] receives a +2 Sun-Blindness DLV Hindrance DRM, provided all the following conditions are met:

- Neither the firer nor the target is an Aerial unit;
- The LOS to the target is in an easterly direction, and that LOS lies completely within the shaded area (or an extension of it) in one of the accompanying illustrations;
- That LOS, when extended *past* the target to the edge of the playing area, is not blocked by an obstacle that is two or more levels higher than the target; and,
- The firer/Spotter/(Offboard-) Observer is not two or more levels higher than, nor in the same hex as, the target.

11.6111 *EC:* When Early Morning Sun Blindness is in effect, EC are automatically Moist [EXC: if it is raining or if Mud exists, EC are Wet or Mud respectively].[19]



EX: The first illustration shows the yellow Sun Blindness Zone of a squad looking east during Early Morning Sun Blindness when the lettered hexrows run north-south. If the squad were also manning a Gun that faced east, its CA would be as shown by the long, thin dashes. If the CA faced northeast (as shown by the short, thick dashes), part of the Sun Blindness Zone would still be within that CA, as indicated. If the squad's/Gun's LOS to any ground target leaves the indicated Sun Blindness Zone, that Zone's +2 DRM would not apply.



EX: The second illustration shows the yellow Sun Blindness Zone of the squad looking east during Early Morning Sun Blindness when the lettered hexrows run east-west. If the squad were also manning a Gun that faced northeast or southeast, the two CA the Gun could possibly establish are shown respectively by the short thick, and long thin, dashes. If the squad's/Gun's LOS to any ground target leaves the indicated Sun Blindness Zone, that Zone's +2 DRM would not apply. Note that in both examples the "outer" hexes of the Sun Blindness Zone have vertices that are not in the Zone even though the center dots of those hexes are.

11.612 *LATE AFTERNOON:* If Late Afternoon, Sun Blindness applies as per 11.611 but in a *westerly* direction.



11.62 *HEAT HAZE:* Heat Haze can occur only in a scenario set in North Africa (11.2) that uses ≥ one Desert Board and whose Weather is not Overcast (or Mud and Overcast). Whenever a SSR or Time of Day dr (11.3) specifies that Heat Haze is in effect, a DLV Hindrance DRM applies at certain ranges to TH (and non-ordnance IFT) DR [EXC: OBA; Fire Lane; Specific Collateral Attack; attack *vs* an Aerial target]. Vs Infantry this DRM is +1 for each multiple of six hexes (FRU) beyond the initial 12-hex range; vs a vehicular/PRC target it is +1 for each multiple of twelve hexes (FRU) beyond the initial 24-hex range. [EXC: Aerial attacker; 11.622.]

EX: Heat Haze creates a +1 DLV Hindrance DRM vs Infantry at a range of 13-18 hexes, +2 at 19-24 hexes, etc. Vs a vehicle/PRC it creates a +1 DRM at 25-36 hexes, +2 at 37-48 hexes, etc.



11.621 *INTENSE HEAT HAZE:* Intense Heat Haze occurs in the same manner as normal Heat Haze, and has the same effects as given in 11.62 except that it applies to such fire vs Infantry beyond the initial *six*-hex range and to such fire vs a vehicle/PRC beyond the initial *twelve*-hex range. [EXC: Aerial attacker; 11.622.]

EX: Intense Heat Haze creates a +1 DLV Hindrance DRM vs Infantry at a range of 7-12 hexes, +2 at 13-18 hexes, etc. Vs a vehicle/PRC it creates a +1 DRM at 13-24 hexes, +2 at 25-36 hexes, etc.

11.622 *AERIAL:* Heat Haze adds a +1 DLV Hindrance DRM to an Aerial unit's Ground Support (E7.4) attack, regardless of range. Intense Heat Haze increases this DRM to +2. Both types of Heat Haze add a +1 DRM to an aircraft's Sighting TC (E7.3), regardless of range.

11.623 *TARGET TYPES:* If using the Area Target Type (or making an OBA Accuracy dr for an *onboard* Observer) vs a hex that contains both Infantry (/Cavalry) and vehicular enemy targets, only the *lesser* of the applicable (Intense) Heat Haze DRM/drm applies. If firing HE or SMOKE at a hex that contains neither an enemy vehicle nor Known enemy Infantry/Cavalry, the DRM/drm that would apply if *Infantry* were in that hex is used.

11.624 *OFFBOARD OBSERVER:* Both types of Heat Haze add a +2 drm to the OBA Accuracy dr of an Offboard Observer (C1.63).

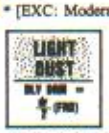
11.7 *DUST:* Dust[20] can occur in a number of ways: by SSR, DYO dr (11.701), or due to some specific occurrence during the course of play (11.74-.761). Dust [EXC: Vehicle/FFE Dust; 11.74-.75] can exist at any of five levels of density, ranging from Light to Extremely Heavy. Light and Moderate Dust are types of DLV. The effects of the various types of Dust are cumulative when occurring simultaneously [EXC: DLV Dust vs LOS (11.61); Sighting TC (11.793)].

11.701 *DYO:* Prior to the start of the first RPh in a DYO scenario in which Light/Heavy Dust can exist (as per the conditions given in 11.71 or 11.73 respectively), make a dr on the DYO Dust Table after both sides have set up and after the Wind Force has been determined. The resulting Dust density (if any) is immediately in effect, but can be altered by the Wind Change DR (11.76). If Steppe Terrain (13.2) is in effect, a "Heavy" Dust result is treated as "Moderate" instead.

DYO DUST TABLE

Final dr	Density	drm
≤ 5	None	+1 If Mild Breeze is in effect.
6-7	Light (11.71)	+2 If Heavy Wind is in effect.
8-9	Moderate (11.72)	+3 Per each Bombardment (C1.8)
≥ 10	Heavy* (11.73)	available in the scenario.

* [EXC: Moderate, if Steppe Terrain (13.2) is in effect].



11.71 *LIGHT DUST:* Light Dust can occur only in a scenario that uses ≥ one Desert Board, and only if EC currently are Dry or Very Dry [EXC: Very Dry *only*, if Steppe Terrain (13.2) is in effect]. While Light Dust is in effect, each TH (and each non-ordnance IFT) DR [EXC: OBA; DC; FT; Fire Lane; Specific Collateral Attack] receives a Dust DLV Hindrance DRM equal to a subsequent dr[21] that is halved (FRD). See also 11.79-.794.

11.711 *INTERDICTION:* Being a type of LV Hindrance, neither Light nor Moderate Dust negates FFMO. However, when either is in effect, a subsequent dr is made for each Interdiction DR; this dr generates a Dust DRM as per 11.71 or 11.72 (as applicable) but with its sign reversed, which modifies the Original Interdiction DR. The routing unit suffers Casualty Reduction only if it fails its NMC via the Final DR [EXC: an Original 12 still eliminates the unit; A10.31]. Heavy and Very/Extremely Heavy Dust, and Vehicle/FFE Dust, are LOS Hindrances which prevent Interdiction.

EX: A routing unit is Interdicted during Light (only) Dust. If the subsequent dr is a 6, it receives a −3 DRM; if a 4 or 5, a −2 DRM; if a 2 or 3, a −1 DRM; and if a 1, it receives no DRM. Hence if the Interdicted unit has a 7 Morale, and rolls an Original 8 for its NMC but an Original dr of ≥ 4, it will be unaffected.



11.72 *MODERATE DUST:* Moderate Dust is treated exactly the same as Light Dust except that the subsequent dr is halved (FRU).



11.73 *HEAVY DUST:* Heavy Dust can occur only in a scenario that uses *only* Desert Board(s), and only if EC currently are Dry or Very Dry and Steppe Terrain (13.2) is not in effect. While Heavy Dust is in effect, a LOS Hindrance DRM equal to half the range (FRU) applies to each type of attack that can receive a Light Dust DRM. In addition, Light Dust is in effect, and each vehicle/Cavalry unit must expend one extra MP/MF to enter a new hex. Being a LOS Hindrance, Heavy Dust negates FFMO.

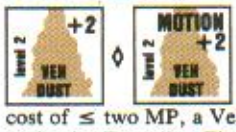


11.731 *VERY HEAVY DUST:* Very Heavy Dust is treated exactly the same as Heavy Dust—except that its LOS Hindrance DRM is equal to the range of the attack, a BU AFV must expend one extra MP to enter a new hex (in addition to the extra MP required by 11.73), use of Double-Time/Gallop is prohibited, attacks by/vs Aerial units are not allowed, and all Recovery dr receive a +1 drm.



11.732 *EXTREMELY HEAVY DUST:* Extremely Heavy Dust is treated exactly the same as Very Heavy Dust, except that Moderate Dust (11.72) applies instead of Light Dust and all B/X numbers for non-Aerial units are lowered by one.

EX: A squad firing with four FP at a range of three hexes during Heavy Dust receives a +2 LOS Hindrance DRM plus a Light Dust DLV Hindrance DRM of 0, +1, +2 or +3. If firing during Very Heavy Dust, the Light Dust DRM is applicable in the same manner but the LOS Hindrance DRM is still +3 but the Moderate Dust DRM will be −1, +2 or −3. If the attack has a range of zero (TPBF), only the Light Dust DRM will apply during Heavy or Very Heavy Dust, and only the Moderate Dust DRM will apply during Extremely Heavy Dust. Assuming the squad's attack leaves two Residual FP, if another unit is later attacked by that Residual FP no *DLV* DRM will apply but FFMO/FFNAM may. Remember that *DLV* DRM are not applicable to determining if LOS is blocked (11.6).



11.74 *VEHICLE DUST:* Whenever Light Dust can exist (as per the conditions given in 11.71), Vehicle Dust can also occur. In such a scenario, as a vehicle of any type *enters* a new *hex* at a cost of ≤ two MP, a Vehicle Dust counter is immediately (i.e., prior to Defensive/Bounding First Fire attacks) placed at the Base Level of the hex it has just exited [EXC: no Dust counter is placed if the vehicle expended a Start MP in the hex just exited, if it exited that hex via a paved-road hexside, if in exiting that hex it also exited the playing area, if it is/was using Armored Assault (D9.31) in its current MPh, or if Heavy-Winds/Gusts are in effect]. That Dust counter is immediately removed from that hex when one of the following occurs:

- The vehicle leaves its present hex;[22]
- The Wind Change DR results in Heavy-Wind/Gusts/Rain;
- The vehicle begins the next friendly PFPh *not* in Motion; or,
- The vehicle begins *its* next MPh already in Motion, and expends a MP for any reason.

Vehicle Dust is otherwise treated as normal drifting Dispersed Smoke in all respects [EXC: Sighting TC; 11.793], and hence is a two-level +2 LOS Hindrance rather than a type of DLV. Since a vehicle is not prohibited from expending more MP to enter a hex than the minimum required, it may, as it enters a new hex, declare a higher-than-necessary MP expenditure in order to not create Vehicle Dust. Vehicle Dust created by a vehicle that was then destroyed is removed at the start of its owner's next PFPh (or sooner, as per one of the conditions listed above). The reverse side of the Vehicle Dust counter is placed face-up if the vehicle both creates dust and ends its MPh in Motion.

EX: A vehicle starts its MPh by expending a Start MP and then one MP to enter a Desert Open Ground hex. No Vehicle Dust occurs in the hex it just exited. It then enters a Desert Open Ground hex that contains SMOKE, expending two MP to do so. A Vehicle Dust counter is now *immediately* placed in the hex it just exited. Any further MP expenditure by that vehicle in its present hex—e.g., VCA change, OVR cost, sD usage, Stop MP, etc.—is not considered when determining whether that Dust counter should be placed. (The vehicle could have made an expenditure of ≥ three MP to *enter* the hex, which would have prevented creating Vehicle Dust in the hex being exited. But if it were towing a Gun it would have had to expend at least three MP to enter the SMOKE hex and thus could not have created Vehicle Dust.) If the vehicle begins the next

friendly PFPh Stopped (or if it was destroyed in the interim), the last Vehicle Dust counter it placed will be removed at the start of that next friendly PFPh (along with white Dispersed smoke; A24.4); however, if it ends its MPh in Motion, that Dust counter will be removed immediately upon the vehicle's initial MP expenditure in its next MPh (unless it is destroyed/stunned/shocked/immobilized in the meantime, in which case that Dust counter will be removed at the start of the next friendly PFPh).

11.741 *PLATOON/CONVOY MOVEMENT:* When using platoon/convoy movement, Vehicle Dust is placed/shifted only at the *end* of each Impulse before Defensive/Bounding First Fire attacks.

11.75 *FFE DUST:* Whenever Light Dust can exist (as per the conditions given in 11.71), the following changes occur to a FFE LOS Hindrance (C1.57):

- that of an HE Concentration becomes +1 *per hex* of the Blast Area;
- that of a Harrassing Fire FFE generates a normal FFE Hindrance DRM (i.e., as per C1.57) in all the hexes of its Blast Area;
- that of a Barrage (E12.52) becomes +1 *per hex* of the Blast Area;
- that of a Creeping Barrage (E12.75) becomes +2 *per hex* of the Blast Area.

Wind-Force/Gusts have no effect on FFE Dust.



11.76 *WIND & GUSTS:* [Note: these rules are applicable only when Heavy Dust can occur (as per the conditions given in 11.73).] Wind-Force/Gusts can cause Dust and can also increase or decrease its density; any such change occurs immediately upon making the Wind Change DR. In each Player Turn that Heavy Winds *and* Gusts are in effect, the Dust density increases one level; if both of these conditions are in effect for *successive* Player Turns, this increase is cumulative per Player Turn. Whenever Heavy-Winds/Gusts *cease* to be in effect, the Dust density decreases one level. No other Wind/Gust occurrence affects Dust density.[23]

EX: Assume a scenario that uses only Desert Boards begins with Dry EC, a Mild Breeze and no Dust. The first Wind Change DR causes Gusts—but this will not create Dust. On the second Wind Change DR, the Gusts cease but Heavy Winds occur; still there is no Dust. However, the third Wind Change DR causes Gusts again; now Light Dust is in effect (due to the presence of Heavy Winds *and* Gusts). If the fourth Wind Change DR causes Gusts yet again, the Dust density will increase to Moderate (due to Gusts being in effect for two successive Player Turns). If the fifth Wind Change DR ends the Heavy Winds or the Gusts, or both, the Moderate Dust becomes Light—but will *not* be further reduced in density by the sixth Wind Change DR (unless rain occurs).

11.761 *HEAVY WIND:* During *any* level of Dust density (11.71-.732), an attack [EXC: Aerial Ground Support; E7.4] directly into Heavy Wind vs a target in another hex (even if PBF applies) incurs an extra +1 DLV Hindrance DRM. "Directly into" is defined as occurring when the LOS/LOF, as it exits the firer's (or Spotter's/Observer's) hex, crosses or lies along a hexside of the adjacent hex that lies directly upwind from the firer's (or Spotter's/Observer's) hex—i.e., the adjacent hex that corresponds to a −1 on the Wind Direction counter.



11.77 *RAIN:* Whenever rain commences, all forms of Dust instantly cease to exist, and none can occur again for the remainder of the scenario.



11.78 *NIGHT:* The current level of Dust density (11.71-.732) reduces the ability of starshells, IR and Blazes to Illuminate (E1.9) Locations as follows:

- *Light/Moderate (only):* a starshell Illuminates its own hex and all others within *two* hexes; an IR Illuminates its own hex and all others within *four* hexes; a Blaze is unaffected.
- *Heavy:* a starshell Illuminates its own hex and all *adjacent* hexes; an IR Illuminates its own hex and all others within *two* hexes; the Illuminated Zone of a Blaze equals the number of Blazing non-rooftop levels in the hex.
- *Very Heavy:* a starshell Illuminates *no* hexes and an IR Illuminates only *its own* hex; a Blaze is treated the same as it is for Heavy Dust.
- *Extremely Heavy:* neither a starshell nor an IR causes any Illumination, and a Blaze Illuminates only its own Location.

11.79 *MISCELLANEOUS:* Dust's effects (if any) on other aspects of play are given below.

11.791 *OBA ACCURACY:* Like other Hindrance types, *all* DLV DRM can apply as drm to OBA Accuracy dr (C1.62), based on the (Offboard) Observer's LOS. [EXC: neither Sun Blindness (11.61) nor Heavy-Wind-and-Dust (11.761) affects the LOS from an Observation Plane (E7.6). See also 11.623-.624.]

11.792 *IN BUILDING:* Neither DLV nor Vehicle/FFE Dust affect a LOS that lies entirely within the same building.

11.793 *AERIAL:* Any type(s)/level(s) of Dust adds only a total +1 DRM to a Sighting TC (E7.3) but, except as specified otherwise, all types/levels add cumulative DRM to attacks by/vs Aerial units [EXC: Aerial Combat (E7.22); Heavy AA fire (E7.52)] in the normal manner using the Aerial Range (E.5).

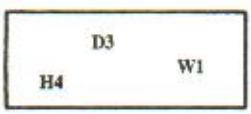
11.794 *RESIDUAL-FP/CC:* Dust, regardless of type(s)/level(s), has no effect on CC attacks, nor does it reduce the Residual FP placed by a Fire Lane, nor does it affect a Fire Lane's attack [EXC: Heavy (or denser) Dust negates FFMO; 11.73-.732].

11.8 *MUD:* When Mud exists (as per the Arid Weather Chart or SSR) in a scenario set in an Arid Land (11.2) using *only* Desert Board(s), the normal method of determining its effects on Bog (D8.23) is used, but only Open Ground [EXC: not scrub, hammada or sand] hexes Accessible to hammada count as hexes *entered* for purposes of the Secret dr. Such Open Ground hexes cannot cause Hammada Immobilization (though 3.32 still applies for motorcycles). This possibility of Bog is negated only by the use of a paved road in the hex. If Broken/Steppe Terrain (13.1-.2) is in effect and/or non-Desert Board(s) are being used, D8.23 applies in the normal manner in lieu of 11.8.

EX: If the D8.23 Secret Bog Check DR indicates a vehicle will bog, and the Secret dr is a 2, the vehicle will bog in the second non- scrub/hammada/sand Open Ground hex Accessible to hammada which it enters during its MPh, provided it does not enter that hex via a paved road hexside.

12. DESERT OVERLAYS

12.1 *[Note: Many of the following rules do not apply to Overlays X1 and E1. See 12.43 and 12.5 before cutting out these two overlays.]* A number of overlays have been included in *WEST OF ALAMEIN*. Each must be cut out before it can be used. When doing so, cut just *inside* the edges of the overlay's exterior hexsides. This is important because, along the exterior edge of the overlay, only the *mapboard's* hexsides and vertices matter for rules purposes. The overlays contain no hex coordinates, but the front of each multi-hex overlay contains a small "1" in one hex and a small "2" in an adjacent hex; these numbers are used to orient the overlay on its board. Pressing a few small pieces of plastic adhesive (such as PLASTI-TAK® or PLAS-TIC®, which are usually available where office/school supplies are sold) onto the back of the overlay is an easy and effective method of attaching it to a board for the duration of a scenario. Alternatively, a sheet of appropriately sized plexiglass may be laid over the playing area after the overlays have been placed. See A2.71 for recording hex coordinates that are covered by overlays. Note that several overlays contain one or more hexes which lack that overlay's major terrain type.



12.2 *SSR PLACEMENT:* When a SSR calls for the use of one or more overlays, it will specify the board on which it will go and, if a multi-hex overlay, will also list the coordinates of two adjacent hexes that determine the overlay's orientation. The first hex listed is covered by the overlay hex that contains the "1", and the second is covered by the overlay hex that contains the "2". On the scenario card, the "board configuration" will contain the overlay's ID in its approximate placement location.

EX: A SSR states "Place Overlay H1 on 27H6-G7". The hex of Overlay H1 that contains the "1" is therefore placed over hex 27H6, and that containing the "2" is placed over hex G7.

12.3 *RANDOM PLACEMENT:* When preparing a DYO desert scenario, overlays can be placed randomly if both players agree—but only on board(s) 26-31 and/or on the level 4 portion of Overlay E1 (12.5). First, set up the boards as they will be used and determine which direction is North. Then make a dr to find the Overlay Density drm, using the following table:

dr	Overlay Density drm
≤ 2	−2
3-4	−1
≥ 5	0

Then make a dr for any one board in play, using the following table and the Overlay Density drm:

Final dr	Result
≤ 1	Two overlays will be placed on *each half* of that board;
2	One overlay will be placed on *each half* of that board;
3	One overlay will be placed on the northernmost or easternmost half of that board;
4	One overlay will be placed on the southernmost or westernmost half of that board;
≥ 5	No overlays will be placed on that board.

Then, for each half of that board receiving an overlay, make a DR (or two DR if the Final dr just made was a "1"), reading individually *the colored and white dr* of each DR, and consult the following table to find the overlay(s) selected. Place each such overlay upside-down on the appropriate half-board, *then repeat the 12.3 procedure for each other pertinent board in the playing area.*

DYO DESERT-OVERLAY TABLE

cdr	wdr	Overlay	cdr	wdr	Overlay
1	1	W1*	4	1	D1
1	2	W2*	4	2	D2
1	3	W3*	4	3	D3
1	4	W4*	4	4	D4
1	5	S1	4	5	D5
1	6	S2	4	6	D6
2	1	S3	5	1	SD1**
2	2	S4	5	2	SD2**
2	3	S5	5	3	SD3**
2	4	S6	5	4	SD4**
2	5	S7	5	5	SD5**
2	6	S8	5	6	SD6**
3	1	H1	6	1	SD7**
3	2	H2	6	2	SD8**
3	3	H3	6	3	X2†
3	4	H4	6	4	X3†
3	5	H5	6	5	X4†
3	6	H6	6	6	X5†

* See 12.41 ** See 12.42 † See 12.44/.45/.46

12.31 *HEXROW:* After all overlays have been selected, each must be positioned. Turn one rightside-up and make a DR, the sum of which yields the hexrow where that overlay's "1" will be placed as per the following table:

DR	Hexrow	DR	Hexrow
2	D or DD	8	J or X
3	E or CC	9	K or W
4	F or BB	10	L or V
5	G or AA	11	M or U
6	H or Z	12	N or T
7	I or Y		

12.32 *ORIENTATION:* After determining the hexrow that contains the randomly selected overlay's "1" hex, make another DR to determine the overlay's exact position. The colored dr *plus two* equals the coordinate number of the hex over which the overlay's "1" hex is placed. The white dr is treated as a Random Direction dr (B.8) to position the overlay's "2" hex relative to its "1" hex. *Then repeat the 12.31-.32 procedure for each other overlay.* One-hex overlays may be oriented in any way agreeable to both players, since in the wide open terrain of the desert boards their effect on LOS is not that critical.

12.33 *PROBLEMS:* If a 12.3 DR calls for an overlay that has already been selected, roll again for one that is available. If one overlay overlaps or is adjacent to another, the one placed last is rerolled for hexrow/orientation (12.31/.32) [EXC: if possible, each "end-hex" of a wadi overlay should be adjacent to a wadi hex—preferably an "end-hex"—of another wadi; see also 12.41]. Any portion of an overlay which extends beyond the playing area is unplayable (or its position can be rerolled for, if both players agree). Obvious terrain conflicts can occur when randomly placing an overlay on Overlay E1; if this happens, use common sense and mutual player consent to resolve it.

12.4 *SPECIAL CONSIDERATIONS:* Some overlays require further rules for placement/use, as are detailed below. These rules apply to both printed and DYO scenarios unless specified otherwise.

12.41 *WADIS:* If the "end-hex" of a wadi *overlay* is adjacent to another wadi (whether the latter is an overlay or not), or if two wadi "end-hexes" (whether overlay hexes or not) are on different boards but are adjacent to each other, all hexsides common to both such wadi hexes are treated as wadi hexsides (i.e., the two wadis are treated as one continuous wadi) except where a wadi cliff is present. For DYO purposes, when the first wadi overlay has been placed, others may be added *immediately* (without making any 12.3 DR) to make the wadi run continuously from one edge of the playing area to some other edge (at least insofar as is possible); their exact layout must be decided upon by mutual player consent.

12.42 *SAND DUNES:* When a sand dune overlay has been selected, an extra, Final dr of ≤ 1 must be made in order to place it. Each already-selected sand overlay adds a −1 drm to that dr, as does each already-selected sand dune overlay [EXC: this drm becomes −2 if the already-selected sand/dune overlay is on the same half-board as, or on a half-board adjacent (even diagonally) to, the half-board being rolled for]. If the Final dr is ≥ 2, no overlay is placed. If it is ≤ 1, place the overlay and then make another dr; a Final dr ≤ 1 makes the dune a High Dune (7.5), while any other result yields a Low Dune. Each already-selected High Dune adds a −1 (or −2, as given above) drm to this dr.

12.421 *D6:* Overlay D6 contains a non-Lip hex that is also a sand (7.) hex distinguishable by its darker-yellow color. This hex is treated as normal Open Ground if Broken/Steppe Terrain (13.1-.2) is in effect.



12.43 *X1:* Overlay X1[24] represents a tight cluster of Single-Story stone buildings, completely surrounded by cliffs. The TEM of these buildings is +4. However, all Small Arms fire from this Location to another hex is halved as Area Fire prior to all other modification. *When cutting out X1, cut along the outer edge of the cliff artwork.*



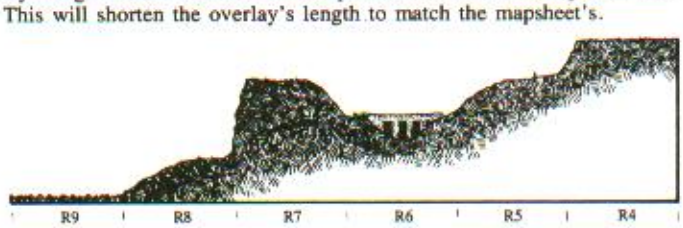
12.44 *X2:* Overlay X2 represents a Single-Story stone mausoleum building. Its TEM is +1; however, if its Location is Encircled (A7.7), this TEM is reduced to zero. It is not considered a building for rally/rout purposes, and is not susceptible to Flame/Blaze.



12.45 *X3:* Overlay X3 represents the tents of a Bedouin camp. It is treated exactly like in-season Grain except that it is Inherent Terrain (B.6) and has an entry cost of one MF/MP for all units.

12.46 *X4 & X5:* Overlays X4 and X5 each represent a cluster of normal, Single-Story stone buildings.

12.5 *ESCARPMENT:* The large overlay whose ID is "E1" represents part of an escarpment.[25] *When cutting out E1, cut along the outer edges of the cliff artwork and as given in the instructions printed on the overlay sheet; otherwise, cut inside the exterior hexsides as given in 12.1.* This overlay is used only on board 25, and is positioned on it as per A2.7. When placed, the terrain rises from Level 0 on board 25 to Level 4 on the overlay—and if another board is butted against the long Level 4 edge of the overlay, this added board is also at Level 4. If the hexsides printed on E1 do not align properly with those on the mapsheet, crease the overlay along its fold line to follow the depressed contour of the mapsheet fold. This will shorten the overlay's length to match the mapsheet's.



Partial cross section of hexrow R, board 25, with Overlay E1 in place.

12.51 *MF/MP:* When using Overlay E1, F.2A applies unchanged thereon [EXC: *Desert* Terrain Chart MF/MP apply to level 4 hexes—i.e., those with a Base Level (*or Crest Level*, if one is present) of ≥ Level 4—unless such a hex is being entered from a *lower, non-wadi* level].



EX: A truck moving from 25M8 to L7 expends eight MP (4 [ascend a level]+4 [Chapter-B Open Ground]=8). However, if moving from M7 to L7 it expends five MP (4 [ascend a level]+1 [Desert Open Ground]=5). If moving from L7 to M7—or if moving from M8 to M7—it expends seven MP (6 [enter wadi]+1 [Desert Open Ground]=7). If moving from L7 to M8 it expends four MP (Chapter-B Open Ground).

12.52 *SCRUB:* When using Overlay E1, treat all brush on board 25 as scrub unless Broken Terrain (13.1) is in effect.

13. ALTERNATE TERRAIN TYPES

13.1 *BROKEN TERRAIN:* If a SSR specifies that Broken Terrain exists on a Desert Board, all scrub becomes *brush* and is considered Inherent Terrain (B.6), while all hammada hexes become *crag* hexes that are also Half-Level Obstacles (thus affecting LOS just like rubble; see also 6.412). In addition, each non-Depression Open Ground [EXC: not scrub, hammada or sand] hex Accessible to a hammada (now crag) hex becomes a Broken Ground hex; i.e., it is treated as Concealment Terrain with a +1 TEM (but is neither an obstacle nor a Hindrance to LOS), uses *doubled* Chapter B Open Ground MF/MP costs, and becomes a Bog hex for all vehicles [EXC: 3.32 still applies for motorcycles]. In all other respects the board is still considered a Desert Board [EXC: F.1A, F.1C and 11.8 do not apply], and overlays may be used on it. See also 12.421 and 12.52.

13.2 *STEPPE TERRAIN:* If a SSR specifies that Steppe Terrain exists on a Desert Board, all hammada becomes *brush* and all scrub becomes *woods*. In addition, Desert LV (11.6) [EXC: not (Intense) Heat Haze; 11.62-.624], Vehicle Dust (11.74) and FFE Dust (11.75) can apply but only if EC are Very Dry. Lastly, Sand overlays may be used to represent grainfields. *These* types of brush, woods and grain are also treated as Inherent Terrain (B.6). In all other respects the board is still considered a Desert Board [EXC: F.1A-.1C and 11.8 do not apply], and other overlays may be used on it. (Wadis and gullies would be considered *wadis*.) See also 11.1 and 12.421.

13.3 *CACTUS HEDGE:* A SSR may specify that walls/hedges are cactus hedges. All hedge rules apply to such hexsides—except that Infantry may cross one only via Minimum Move (A4.134), Low Crawl (A10.52) or Advance vs Difficult Terrain (A4.72), and that Cavalry, Horses and Wagons may not cross one at all.

13.4 *CACTUS PATCH:* A SSR may specify that orchard hexes are cactus patch hexes instead. All orchard rules apply to such hexes, except that a cactus patch is a Half-Level Obstacle (thus affecting LOS just like rubble; see also 6.412), has a +1 TEM, has Kindling and Spreading Fire numbers of 12 and 10 respectively, its MF/MP costs are *triple* those of an orchard, and it is never out of season. A ⅜" parachute landing in a cactus patch must immediately take a NMC as per E9.42.

13.5 *OLIVE GROVE:* A SSR may specify that orchard hexes are olive grove hexes instead. All orchard rules apply to such hexes, except that an olive grove also has a +1 TEM, its MF/MP costs are *double* those of an orchard, and it is never out of season. A ⅜" parachute landing in an olive grove must immediately take a NMC as per E9.42.

13.6 *VINEYARD:* A SSR may specify some terrain type as being a vineyard. A vineyard hex is treated exactly the same as brush except for also being Inherent Terrain (B.6) and a Bog hex. A ⅜" parachute landing in a vineyard must immediately take a NMC as per E9.42.

F. FOOTNOTES

1. *F.1B ENTRENCHING:* In many areas of the desert a solid bedrock of limestone lies a few inches beneath the surface. In such ground a man was lucky if he could dig even a "slit trench", which was a shallow excavation in which to lie prone. The construction of deep entrenchments almost always required drilling and blasting equipment; hence such fortifications were rarely found in hastily organized positions.

2. *F.4 AXIS VEHICLES:* This rule is included because early in the campaign these vehicles were not properly modified to cope with the harsh conditions of the desert. Of primary importance were special air and oil filters for engines—the lack of which, in combination with the tremendous clouds of dust raised by moving vehicles and the great distances rapidly traversed, caused engines to overheat/seize-up and led to the premature breakdown of other components.

3. *1.1 OPEN GROUND:* The northern stretches of the Sahara Desert are not, for the most part, vast areas of rolling sand dunes but rather an extremely flat, barren and stony waste, with no cover for miles at a time save for the occasional slight undulation unnoticed to any but the trained eye. Of course, other types of terrain do exist there—some of which are enlarged upon in Chapter F—but generally the panorama was so devoid of landmarks that units could become lost quite easily, and so relied heavily on navigation by the sun and stars.

4. *2.1 SCRUB:* Scrub represents the camel thorn bush which grows in the North African desert. Since it rarely attains a height of even two feet it offers little in the way of cover (which is why it doesn't negate FFMO), but it can aid in the camouflage of positions. It also imparts a jolting ride to the occupants of vehicles, forcing them to greatly reduce their speed.

5. *3.1 HAMMADA:* Hammada is a type of desert terrain whose surface is strewn with loose rocks and stones. It reduced the speed of vehicles to a crawl and severely punished their tires and suspensions, while increasing the fragmentation effect of exploding shells, thus providing an extra danger to infantry and soft-skinned vehicles in the vicinity.

6. *3.31 HAMMADA IMMOBILIZATION:* Trucks of British design had several advantages in the desert, one of which was the use of a single tire per side on their rear axles. Double tires (i.e., two tires side by side per axle) frequently trapped rocks between them, leading eventually to a puncture. Moreover, even normal desert terrain rapidly ruined tires due to the many cuts and gouges they sustained from the stony surface. Hence, the ability of hammada to cause immobilization is not an entirely literal representation of this terrain type; to a certain extent it is a game mechanism intended to randomly show some of the desert's deleterious effects by providing a possibility of unexpected breakdowns.

7. *4.1 DEIRS:* This terrain feature is an area of ground slightly lower than the surrounding terrain. A deir in the game is not a marked concavity in the landscape but rather an inconspicuous indentation—albeit one that could provide a welcome degree of protection if the enemy were not too near or at a higher elevation. The Lip is more a tool of the game than an easily identifiable terrain feature.

8. *5.1 WADIS:* Wadis are similar to gullies but, being formed by the rushing waters of winter's downpours, are more prone to have vertical, cliff-like sides. In some spots however, they slope up to ground level less abruptly and could provide excellent hulldown positions. The wadis on board 25 represent eroded ravines gouged into the sides of the djebel (mountain).

9. *5.422 VEHICLE EXITING CREST STATUS:* Exiting directly to a different hex incurs no cost for leaving the wadi hex because that was either paid as the vehicle ascended the wadi to gain Crest status, or did not apply due to the vehicle's never having been IN the wadi (since it entered Crest status *directly* from another hex).

10. *5.422 VEHICLE EXITING CREST STATUS:* Exiting by moving INTO its present hex incurs no expenditure for COT because that was paid either when the vehicle originally moved INTO the wadi (i.e., prior to assuming Crest status) or when it entered Crest status *directly* from another hex.

11. *6.1 HILLOCKS:* A desert hillock was usually not much more than a swell in the flatness of the landscape, and was sometimes referred to by the British as a "pimple". It could provide vital cover and power of observation; hence the presence of one could dominate a tactical situation. A hillock has no Crest Line, and costs less to ascend than a hill, because its slope is so slight in comparison.

12. *6.4 HILLOCK LOS:* While the rules for hillock LOS might look intimidating, don't despair. An easy way to visualize their general effects when attempting to see "past" one is to picture it as a very thick wall. Hence a non- entrenched/Emplaced unit adjacent to a hillock "wall" can see past it to those hexes directly behind the *next* hillock "wall", but if not thusly adjacent to it the unit can see past it only to those hexes immediately "behind" it. The exceptions to this are: units at > the height of a hillock treat all hillocks at that elevation as flat ground (due to their low height and lack of significant slope); units *on* a hillock treat it and the next (only) hillock along their LOS as flat ground; and entrenched/Emplaced units directly behind a hillock cannot see *past* it to ≤ their own elevation. The latter is not meant to imply that entrenched units are somehow lower than those who are prone; it's simply an abstracted way of enabling units to adopt a reverse-slope defense, which was commonly done to keep from being seen by the enemy until he was at close range. Obviously, if troops wished to dig in where they had a more commanding view, they would do so higher up *on* the hillock.

FOOTNOTES

13. *7.1 SAND:* A sure way to add to one's problems in the desert was to drive through an area of soft sand. Not only would precious fuel be consumed at a much higher rate, but bogging down in it became a distinct possibility. Sandy areas—even when level—were usually identifiable by experienced drivers, but occasionally the sand's surface was baked into a crust that was virtually indistinguishable from hard ground; such a trap could fool even the most veteran driver.

14. *7.31 BOGGING IN SAND:* British-built trucks were less prone to bogging down in sand because they were usually fitted with specially designed desert tires. Such tires were not available to the U.S. Army until after the North African campaign had ended. The Italians built several types of vehicles specifically for use in the sands of the Sahara (one was even designed to exert the same ground pressure as a camel), but most were used only as artillery prime movers. That British trucks had superior mobility in sand was even attested to by Rommel, who at one point directed that all trucks used on recon missions should be captured British types "because ours stick in the sand too often".

15. *8.1 SANGARS:* In the desert, proper entrenchments and trench systems could rarely be just "dug"; usually they needed to be cut, drilled and/or blasted out of the rocky limestone ground. When the specialized equipment or necessary time for this was lacking, defenses of a more improvised nature were constructed. Known as sangars (a Pushtu word for stone-built breastworks), these consisted of rocks, gathered from wherever they could be found, piled into a low circular wall. Though less than ideal cover, sangars were infinitely preferable to being "naked" in the open desert.

16. *8.6 TRENCH-SANGAR MOVEMENT:* These rules have been included to reflect the fact that in a fortified line (which is what trenches usually represent) communication trenches linked the various defensive positions. It wouldn't make much sense to fortify a hilltop but not provide a protected access route to it. Sangars were included to further emphasize the benefits inherent in a well-planned position.

17. *9.1 TRACKS:* Desert tracks were trails used by the Bedouin. They cannot by any stretch of the imagination be considered the equal of roads. In fact, trails that were frequently travelled became thoroughly rutted and covered with fine powdery dust a foot or more deep; consequently they were usually avoided, with vehicles instead moving parallel to them at a distance.

18. *11.3 TIME OF DAY:* Desert assaults were sometimes coordinated to come "out of the sun" when it was just above the horizon, using its blinding brightness as "cover" for the attack. Alternatively, as the sun rose, the heat reflected from the desert's surface created a shimmering heat haze that could make target recognition almost impossible at a distance. Heat haze tended to shrink in apparent size anything that was at or just above ground level, while taller objects appeared greatly increased in height and seemed to dance about in midair.

19. *11.6111 EARLY MORNING MIST:* In the winter night, the near-freezing temperature caused dew to form. The next morning a thick mist often formed as the sun evaporated it again. This could happen even in the summertime under the proper environmental conditions, but since this was a much less frequent occurrence it has been ignored.

20. *11.7 DUST:* Moving vehicles, artillery bombardment, bombing, the weather, and other factors could all distinctly impair visibility during a desert battle by creating a ubiquitous pall of dust. In fact, dust was probably the single most effective type of "cover" available in that theater. Vehicles fleeing from the enemy often escaped destruction thanks to the dust they raised, which effectively acted as a smoke screen (hence rule 11.74). A mass of moving vehicles, or a heavy artillery bombardment, could reduce visibility in the affected area to fifty yards or less.

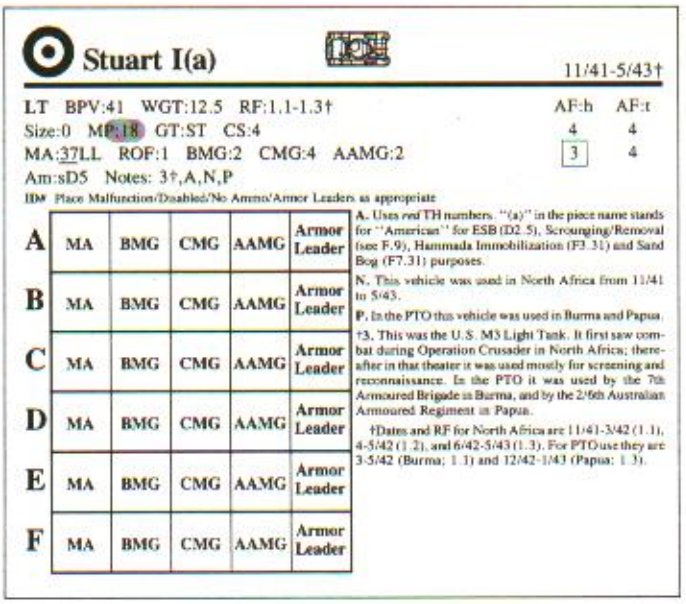
21. *11.71 SUBSEQUENT dr:* Players will probably find it more convenient to instead add a third, different-colored die to this TH/IFT DR, using it to determine the Dust DRM. The familiar term "subsequent dr" was used in the rule because it obviates the need to explain a "new" concept—i.e., that of rolling a third die simultaneously.

22. *11.74 VEHICLE DUST:* In effect, the Dust counter "follows" the vehicle as it moves from hex to hex (provided it expends ≤ two MP each time it does so).

23. *11.76 WIND vs DUST:* Another wind-related aspect of the North African environment is the desert sandstorm, or *khamsin* in Arabic. Chapter F includes no special rules for it because, with visibility cut by the storm to as little as three yards, all activities generally were reduced to seeking cover from the sandblasting wind and choking dust. However, the game does not ignore the possibility of a khamsin's occurrence. The proper combination of Weather, EC, Wind and Gusts in a DYO scenario can create its effects, and the probability of its occurrence is greatest in a scenario set in spring or summer—the time when khamsins occurred most frequently.

24. *12.43 OVERLAY X1:* This overlay is intended for use in a *HOLLOW LEGIONS* scenario.

25. *12.5 ESCARPMENT:* The famous North African escarpments are similar to cliffs, but with less steep (and very eroded) slopes. Some are six hundred feet high, though generally their heights range from one hundred to two hundred feet. Their significance in the desert war lay mainly in that they were commanding heights, provided good defensive positions for infantry, and greatly restricted vehicular movement across them. Hence they were often the scene of heavy fighting, especially where crossed by a road or motorable track.



Stuart I(a) 11/41-5/43†

LT BPV:41 WGT:12.5 RF:1.1-1.3† AF:h 4 AF:t 4
Size:0 MP:18 GT:ST CS:4
MA:37LL ROF:1 BMG:2 CMG:4 AAMG:2 [3] 4
Am:sD5 Notes: 3†,A,N,P
ID# Place Malfunction/Disabled/No Ammo/Armor Leaders as appropriate

	MA	BMG	CMG	AAMG	Armor Leader
A					
B					
C					
D					
E					
F					

A. Uses *red* TH numbers. "(a)" in the piece name stands for "American" for ESB (D2.5), Scrounging/Removal (see F.9), Hammada Immobilization (F3.31) and Sand Bog (F7.31) purposes.

N. This vehicle was used in North Africa from 11/41 to 5/43.

P. In the PTO this vehicle was used in Burma and Papua.

†3. This was the U.S. M3 Light Tank. It first saw combat during Operation Crusader in North Africa; thereafter in that theater it was used mostly for screening and reconnaissance. In the PTO it was used by the 7th Armoured Brigade in Burma, and by the 2/6th Australian Armoured Regiment in Papua.

†Dates and RF for North Africa are 11/41-3/42 (1.1), 4-5/42 (1.2), and 6/42-5/43 (1.3). For PTO use they are 3-5/42 (Burma; 1.3) and 12/42-1/43 (Papua; 1.3).

British AFV Cards will become available for purchase as of January 1989. Their cost will be $5.00 US, plus 10% for shipping within the USA (or for APO/FPO); or 20% for Canada or Mexico; or 30% for shipment overseas.

WEST OF ALAMEIN CREDITS

DESIGN & DEVELOPMENT: Bob McNamara
HISTORICAL RESEARCH: Bob McNamara (with special thanks to Charles Markuss and James Matchette)
SCENARIOS: Bob McNamara, Eugene Murrell, Charles Kibler, Brian Martuzas
COVER ART: George Parrish
GAME ART & PRODUCTION ASSISTANT: Charles Kibler
PLAYTEST-GROUP COORDINATORS: Gerald Fahrenthold, Eugene Murrell, Dave Sisler, James Collier, Frank Calcagno, Bruce Degi, Chris Gammon, Chaim Kaufmann, Jim Stahler, Brian Martuzas, Howard Sylvester, Mitchell D. Balicki, Darryl Burk, Andrea Cantatore (Special thanks also to Perry Cocke, Bill Conner, Rex Martin and Mark Nixon)
TYPESETTING: Colonial Composition
PREP DEPT. COORDINATOR: Lou Velenovsky
PRINTING: Monarch Services

©1988 **The Avalon Hill Game Company** • Printed in USA

G. PACIFIC THEATER

ORDER OF PRESENTATION

1. The Japanese
2. Jungle
3. Bamboo
4. Palm Trees
5. Huts
6. Kunai
7. Swamp
8. Rice Paddies
9. Panjis
10. Animal-Pack
11. Caves
12. Landing Craft
13. Beaches
14. Seaborne Assaults
15. Bulldozers
16. Tropical Climatic Conditions
17. The U.S. Marine Corps & Early U.S. Army
18. The Chinese

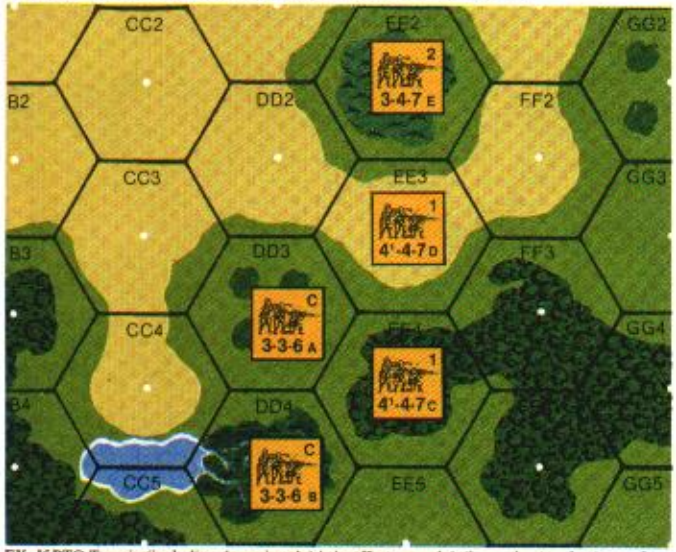
G.1 *PTO TERRAIN:* Except as mentioned otherwise, the following apply whenever "PTO Terrain" is stated as being in effect:

- All woods are Jungle;
- All brush is Bamboo;
- All orchards are Palm Trees;
- All *wooden* Single Story Houses in hexes containing ≥ two separate buildings, but no *partial* building depiction, are Huts;
- All grain is Kunai;
- Each marsh hex adjacent to ≥ one Jungle hex is a Swamp hex;
- Cellars (B23.41) can exist only in *multi-hex stone* buildings;
- No roads exist (all woods-roads are Paths, with no Open Ground in the woods-road portion of those hexes);
- All bridges are Fords;
- Stream "end-hexes" (whether overlay hexes or not) that are adjacent to each other but on different boards are assumed to represent a continuous stream; i.e., each hexside common to two such hexes is treated as a stream hexside [EXC: for LOS/LOF purposes, that hexside is considered a stream hexside only if the LOS/LOF begins in/IN one of those two stream hexes and ends in/IN the other].

G.1A *ROAD/PATH:* All Chapter G references to roads apply only to *playable* roads (i.e., *not* to printed roads that are treated as paths or as non-existent; G.1). All Chapter G references to paths apply also to roads treated as paths.

G.2 *FORTIFICATIONS:* In daytime scenarios, E1.16 applies to Fortifications [EXC: Known minefields; F.7] set up in jungle, kunai or bamboo [EXC: an entrenchment whose occupant(s) are hidden is revealed when a non-Dummy enemy unit enters its Location only if ≥ one of its occupants is revealed too (see G.4); a pillbox is also revealed if any of its occupants fires].

G.3 *FIRE GROUPS:* A unit in *dense* jungle (2.2), kunai, bamboo or swamp may not participate in a multi-hex FG if another unit in that FG occupies some other dense-jungle, kunai, bamboo or swamp hex.



EX: If PTO Terrain (including dense jungle) is in effect, squad A (in a palm-tree hex) may form a FG with squad B (in a swamp hex), *or* with squad C (in a dense-jungle hex), *or* with squad D (in a kunai hex). No other FG configuration is possible for these units as shown—nor would any other be possible even if DD3 were Open Ground.

G.4 *DETECTION:* A12.15/A12.41 does not necessarily apply when, during its MPh, an ATTACKER unit enters a jungle, kunai or bamboo Location whose occupying unit(s) consist(s) *only* of *hidden, Stealthy* Infantry DEFENDER(S), none of which is in a pillbox/building or manning a hidden Gun. The DEFENDER player has the choice of invoking A12.15/A12.41 (as applicable), of having all such DEFENDER units in that Location automatically retain their HIP status (though they can still be revealed by Searching; A12.152), or of having ≥ one of them attack the moving ATTACKER using TPBF on the IFT (/using Reaction Fire as allowed). Unless pinned beforehand, the MPh of each ATTACKER Infantry unit thusly *attacked* ends after all attacks vs it prompted by its entry MF expenditure have been resolved. If the ATTACKER unit ends its MPh in that now-revealed DEFENDER's Location, a CC counter is placed therein. In all cases, the A12.15 provisions for removing a Dummy ATTACKER remain in effect, and A11.19 applies unchanged at the start of the CCPh; however, whenever a *hidden* unit is placed onboard as per A11.19, an Ambush *can* occur.

G.5 *RECOVERY:* A Recovery attempt (A4.44) in jungle, kunai or bamboo receives a +2 drm unless the item being Recovered is in a vehicle, trench, building or pillbox.

G.6 AMBUSH: Ambush (A11.4) may occur in jungle, kunai or bamboo just as if that terrain type were woods. However, the ATTACKER unit/stack in that hex must add a +1 drm to its Ambush dr.[1]

G.7 *RADIO:* When PTO Terrain (G.1) is in effect, all radio (but not field phone) Contact and Maintenance DR receive a +1 DRM.[2]

G.8 *TRIP FLARES:* During setup for a 1944-45 PTO night scenario involving a U.S. Scenario Defender, the U.S. player may assign a number of trip flares (up to the number available in his OB) to any jungle/bamboo/wire/panji Locations.[3] He does this by secretly recording the grid coordinate of each such hex and the number of trip flares set up therein. Each time any, even a friendly, non-Dummy (determined as per A12.11) ground unit/stack enters, expends additional MF/MP in or Searches (G.8C), a Location that currently contains any trip flare(s), the player owning the trip flare(s) immediately makes a dr (Δ) [EXC: no dr is made if the unit/stack is entering (or entering the Location via) a trench/pillbox/subterranean-passage, or is entering the Location via a path/TB created during play, or if the MF/MP expenditure is made for Stopping, Delay or placing SMOKE; for panjis see also 9.121]. During the MPh, one dr is made for each separate qualifying MF/MP expenditure (not for each such MF/MP expended), and is made before Defensive First Fire is conducted. The only possible drm is a −4, which applies if during the current Player Turn the unit/stack entered the hex using (or is Searching "across" a hexside that contains) a road or a path that was *not* created during play. If the Final dr is ≤ the number of trip flares currently in that Location, a trip flare has been set off and a Trip Flare counter is placed therein.

G.8A *EFFECTS:* A Trip Flare counter Illuminates the ground-level Location of its own hex and all Accessible ground-level Locations, including all pillboxes in those hexes [EXC: if placed in/IN a Depression, it can Illuminate IN an Accessible Depression hex only if those two hexes share a Depression hexside]. Each Trip Flare counter placed onboard during the MPh is placed with its red-on-white side face-up, and is removed at the end of that Player Turn's CCPh after the placement of "?"; each placed during a RtPh/APh/CCPh is placed with its purple-on-white side face-up, and is removed at the end of the *next Player Turn's AFPh* (along with First/Final Fire counters; E1.8). The MF/MP expenditure that sets off a trip flare is considered to have been made in an Illuminated Location. A set-off trip flare is equivalent to a fired starshell for the purpose of allowing Fire Lanes vs Bore Sighted hexes (E1.71) and the subsequent use of starshells/IR (E1.9).

G.8B *ELIMINATION:* Once a trip flare has been set off, the number of them remaining in that hex is reduced by one (or by two if the flare was set off by a vehicle *and* the −4 drm applied). All trip flares in the hex are eliminated by an Original KIA DR caused by a HE FFE Concentration; an Original K DR by such an attack eliminates one trip flare in that hex. Vs Bombardment, trip flares have a morale of 7 and must take a NMC; one trip flare in the Bombarded hex is eliminated for every multiple of one by which that MC is failed. Elimination by FFE/Bombardment does *not* cause trip flare Illumination.

G.8C *SEARCH & RECON:* A Search/Recon (A12.152/E1.23) vs a hex reveals the presence, but not the number, of trip flares therein. In addition, when a hex that contains a trip flare is Searched, a separate trip flare

dr is made for that hex as if the Searcher were entering it (G.8), but ignoring the presence of all entrenchments, TB and paths.

G.8D *DYO:* The BPV of each trip flare is "1".

G.9 *OVERLAYS:* A number of new overlays have been included in *CODE OF BUSHIDO*. Their preparation and use follow the principles given in F12.1-.2, but with several important exceptions:

G.9A Cut out the overlays as follows. For each one with a letter-number ID, cut about ⅛" *outside* of its exterior hexsides (i.e., approximately to the tip of the partial hexspines), as indicated by the red lines in the accompanying illustration of Overlays Wd1 and Wd2. For each overlay with just a number ID (see the illustration of one corner of Overlay 2), cut in the same way *except* where the colored artwork does not extend beyond the hexside and where the colored artwork ends beside the hex center dot; in these cases cut along the edge of the colored artwork.



EX: Cut out these overlays, as well as all the others, in the manner indicated by the red lines.

G.9B If two or more overlays overlap—even if just along one of their exterior hexsides—each should be placed onboard in the order it is mentioned in the pertinent SSR.

G.9C Once positioned onboard, only the *overlay's* (or topmost overlay's, should two or more overlap) hexsides and vertices—not those covered over by it—matter for rules purposes. In addition, treat any extraneous terrain (e.g., a sliver of wall/hedge/building not completely covered by the overlay; a portion of brush/water terrain protruding into an adjacent hex of another terrain type) as Open Ground.

G.9D If a mapboard wall/hedge hexside forms a hexspine of an overlay hex, the overlay portion of that hexside (vertex included) is still a wall/hedge hexside (B9.1). This, of course, does not apply to a wall/hedge hexside that is covered by the overlay.

G.9E Overlays 1-3 are used on boards 34-37, and can be placed on D2-D1, N8-N9, T2-T1 or DD8-DD9. Overlay 4 is used only on board 34, and is positioned as per A2.7. Overlay 5 can be placed on 34K2-K1 or 34O9-O10, and on boards 35 and 37 on K2-K1, O9-O10, S2-S1 or W9-W10. The remaining overlays can be used almost anywhere on practically every board.



G.9F Overlay X6 represents a small temple. It is treated as a normal Single-Story stone building [EXC: its *non-Bypass* stacking capacity is reduced to *one* squad-equivalent (Overstacking can still occur), and no vehicle may enter the building itself].

G.10 *OTHER CHAPTERS:* The various rules in Chapters A-D (and those in use from Chapters E/F) apply in conjunction with those in Chapter G unless specifically stated otherwise. Chapter G rules assume the presence of the 1987 and 1989 Errata for Chapters A-D. Chapter G rules that affect rules in some other chapter(s) are marked with one or more color bars of the appropriate color.

1. THE JAPANESE



1.1 *SQUADS:* A Japanese squad has no Broken side.[4] Instead it has a *Full-Strength* side and a *Reduced-Strength* side, both of which are normally in Good Order. The Reduced-Strength side is distinguished by a horizontal red stripe.

1.11 *STEP REDUCTION:* Whenever an armed, non-berserk Japanese squad fails an IFT/Collateral-Attack/Bombardment/FPF MC or suffers a dr "1" sniper attack, it undergoes *Step Reduction* (1.121-.122) [EXC: if Conscript and it exceeds its ELR (1.125); if it suffers Casualty Reduction (1.14)]. Unless it becomes broken, a unit that undergoes Step Reduction retains any pinned/TI/CX status it has, and also maintains any Fire-Lane/Target-Acquisition it can currently claim. Only Japanese squads (and infantry-crews; 1.3) can suffer Step Reduction.

1.12 *ATTACK BREAK:* An armed, non-berserk Japanese squad that fails an IFT/Collateral-Attack/Bombardment/FPF MC (but does not suffer Casualty Reduction) or suffers a dr "1" sniper attack is always affected in one of the following ways (1.121-.125):

1.121 If *Full-Strength* it is Step-Reduced—i.e., is flipped over to its Reduced-Strength side, which is still considered an unbroken squad.

EX: A non-berserk 4-4-8 Japanese squad undergoes a four-FP Small Arms attack that causes a MC on the IFT. If it fails this MC (but does not roll an Original 12 or > its ELR) it is flipped to its 3-4-8 side.

1.122 If *Reduced-Strength* it is Step-Reduced—i.e., is exchanged for one of its *unbroken* HS.

EX: A non-berserk 3-4-8 Japanese squad is a Passenger in a truck that undergoes a six-FP A-P mine attack. The effects DR is a 6, which immobilizes the truck and Collaterally causes a 1MC vs the squad. If the squad fails this MC (but does not roll an Original 12 or > its ELR) it is exchanged for an unbroken 2-3-8 HS.

1.123 If *non-Conscript* and *Full-Strength*, and it exceeds its ELR, it is Replaced (due to ELR failure) by a Full-Strength squad of the next-lower Class which is then Step-Reduced (due to MC failure) as per 1.121.

EX: Continuing the 1.121 example, if the 4-4-8 fails the MC by an amount > its ELR (but does not roll an Original 12) it is instead exchanged for a 1st-Line 3-4-7 squad.

1.124 If *non-Conscript* and *Reduced-Strength*, and it exceeds its ELR, it is Replaced (due to ELR failure) by a Reduced-Strength squad of the next-lower Class which is then Step-Reduced (due to MC failure) as per 1.122.

EX: Continuing the 1.122 example, if the 3-4-8 fails the 1MC by an amount > its ELR (but does not roll an Original 12) it is instead exchanged for an unbroken 2-3-7 HS.

1.125 If *Conscript* (regardless of whether Full- or Reduced-Strength) and it exceeds its ELR, it is Replaced by one of its *broken* HS.

EX: A 3-3-6, or 2-2-6, non-berserk Japanese squad that fails a FPF MC by an amount > its ELR (but does not roll an Original 12) is exchanged for a broken (and DM) 1-2-6 HS.

1.13 *OTHER BREAK:* An armed, non-berserk Japanese squad that suffers a break result directly due to a cause *other than* those listed in 1.12 (e.g., due to its Bailing Out, voluntarily breaking, Wreck Check, para landing, OVR Prevention MC, or Panji MC [9.31]) is always affected in ≥ one of the following ways (unless it suffers Casualty Reduction; 1.14):

1.131 If *Full-Strength* it is exchanged for its two broken HS.

1.132 If *Reduced-Strength* it is exchanged for one of its broken HS.

1.133 In addition, if it breaks by an amount > its ELR (but does not roll an Original 12), the one or two broken HS for which it is exchanged will be of the next-lower Class unless the squad is a Conscript.

1.14 *CASUALTY REDUCTION:* All Casualty Reduction results, regardless of how they were caused, apply in the normal manner (i.e., as per A7.302) to *all* types of Japanese Personnel. A berserk or Unarmed Japanese squad that suffers any type of break result suffers Casualty Reduction instead of Step Reduction.

EX: Casualty Reduction, regardless of how it occurred, causes a Full- or Reduced-Strength Japanese squad (whether berserk/Unarmed or not) to be exchanged for one of its same-Class, unbroken HS. Casualty Reduction, regardless of cause, eliminates a HS or crew counter, and Wounds a SMC.

EX: A 4-4-8, or 3-4-8, Elite Japanese squad whose MC DR is an Original 12 (Casualty MC; A10.31) is exchanged for one of its broken (and DM) 2-3-8 HS if it does *not* fail the MC by an amount > its ELR. If that Casualty MC DR also exceeds its ELR it is exchanged for a broken (and DM) 1st-Line 2-3-7 HS instead—in effect being first Replaced by its respective 1st-Line squad, which is then Casualty Reduced to a 1st-Line HS, which then breaks.

EX: A 3-3-6, or 2-2-6, Conscript Japanese squad whose MC DR is an Original 12 (Casualty MC; A10.31) is exchanged for one of its broken (and DM) 1-2-6 HS if it does *not* fail the MC by an amount > its ELR. If that Casualty MC DR also exceeds its ELR it is eliminated instead—in effect being first Replaced by one of its broken HS (1.125), which is then Casualty Reduced (i.e., eliminated; A7.302).



1.15 *UNARMED:* A Full- or Reduced-Strength Japanese squad that becomes Unarmed is exchanged for a normal Unarmed squad. An Unarmed Japanese squad that becomes re-armed (A20.551-.552) is exchanged for a *Full*-Strength Conscript squad. An Unarmed, non-prisoner Japanese unit *may* enter a Location that contains ≥ one Known enemy unit, and can engage in CC vs Personnel using its "(1)" FP factor (A20.5), just as if it were armed. An Unarmed, non-prisoner Japanese unit *is* an obstacle to enemy movement (see A20.54). All other rules for Unarmed units apply unchanged.

1.16 *DEPLOYING:* A Japanese squad Deploys in the normal manner [EXC: if Reduced-Strength, it is exchanged for just *one* of its HS].

1.17 *SMOKE:* Japanese Elite and 1st-Line squads may attempt to place Smoke Grenades as per A24.1. Japanese Elite squads may attempt WP placement as well, as per A24.3.



1.2 *HS:* All armed Japanese HS break and rally in the normal manner (A8.31, A10.3, A10.4, A10.6, etc.; see also 1.14), but do not Disrupt (A19.12). Two Good-Order, same-Class Japanese HS Recombine (A1.32) into a *Full*-Strength squad of that Class.



1.3 *CREWS:* Japanese infantry-crew counters have Full- and Reduced-Strength sides like Japanese squad counters (1.1). A Full-Strength Japanese infantry-crew that fails an IFT/Collateral-Attack/Bombardment/FPF MC or suffers a dr "1" sniper attack is Step-Reduced in the same manner as a Full-Strength Japanese squad (1.11-.121). A Reduced-Strength infantry-crew that suffers such a result is likewise Step-Reduced—but to a *broken* vehicle-crew. A Full- or Reduced-Strength infantry-crew that suffers a break result as per 1.13 (including breaking voluntarily) is exchanged for a broken vehicle-crew. [EXC to all: if it suffers Casualty Reduction; see 1.14.] No infantry-crew may Deploy, nor may vehicle crews Recombine.

A Japanese vehicle-crew breaks and rallies in the normal manner (A8.31, A10.3, A10.4, A10.6, etc.; see also 1.14). A Japanese vehicle-crew counter that did not set-up/enter as an *Inherent* crew is considered an infantry-crew for purposes of A21.22; therefore, an Inherent Japanese vehicle-crew that becomes an onboard Personnel unit should have its ID recorded on paper if A21.22 could come into effect during the scenario. Japanese *Inherent* crews function in the standard manner (D5, etc.).

EX: A 2-2-8 crew undergoes a six-FP Small Arms attack that causes a 1MC on the IFT; if the crew fails that MC it is flipped over to its 1-2-8 side. Had the crew been a 1-2-8 instead, failing that MC would have caused it to be exchanged for a broken (and DM) 1-2-7 crew (and if it subsequently rallied, this 1-2-7 would still be considered an *infantry*-crew, not a vehicle-crew). [EXC to all: If a crew rolls a Casualty MC it is eliminated; 1.14.] A 2-2-8 crew that suffers a dr "1" sniper attack is flipped over to its 1-2-8 side. A 1-2-8 or 1-2-7 crew that suffers a dr "1" sniper attack becomes a broken (and DM) 1-2-7 crew.

1.4 *SMC:* Japanese SMC have no Broken side, and cannot break voluntarily. A Japanese SMC (including a wounded leader) who suffers a break result due to *any* cause is instead Wounded [EXC: an already-wounded *heroic* SMC (including a wounded T-H Hero; 1.421) is eliminated (A15.2), as is a leader who suffers a Casualty MC (1.41)].[5] If he passes his Wound Severity dr he is flipped over to his Wounded side (unless he was already wounded) to indicate the effects on his morale, movement and leadership. Japanese SMC do not take PTC (including LLTC) and do not Pin [EXC: Collapsed Hut PTC/Pin; 5.5]; however, any PTC/Pin result vs a concealed Japanese SMC can cause the loss of his concealment. Even a lone Japanese SMC may conduct an Infantry OVR (A4.15; see also 1.62).



1.41 *LEADERS:* The rank structure of unwounded Japanese leaders is as follows (in descending order): 10-2, 10-1, 10-0, 9-1, 9-0, 8-1, 8-0, 8+1. A Japanese leader who fails a MC by an amount > his ELR is *not* subject to Replacement. A Japanese leader who suffers a Casualty MC (A10.31) is eliminated (see D5.341 for an armor leader). A Japanese Infantry/Cavalry leader increases the Morale Level of all other non-berserk Japanese Infantry/Cavalry units [EXC: another leader] in his Location by one (A.18 applies). A Japanese leader [EXC: Inherent armor leader] is equivalent to a Commissar for all rally and berserk purposes; i.e., he bestows all the same benefits and penalties given in A25.222-.223. See also 1.62.

EX: A Good Order Japanese 10-0 leader stacked with a broken elite HS raises the latter's morale from 8 to 9, thus *in effect* adding a −1 DRM to its Rally Attempt DR as per A25.222. Should the 10-0 become berserk at any time while stacked with the HS, the latter would automatically go berserk too, without having to take the A15.41-mandated Berserk NTC (A25.223).

1.411 *ARMOR LEADERS:* When a Japanese Inherent crew that has not suffered a Stun/Recall during the scenario is *forced* to Abandon a vehicle, any armor leader who is part of that crew [EXC: a "6+1 armor leader"; D3.45] may immediately (but at no other time) become an Infantry leader counter of the next-lower quality. An armor leader who becomes an Infantry leader cannot become an armor leader again.[6]

EX: A tank with a Japanese 9-1 armor leader is destroyed but the crew survives. As the crew counter is placed onboard, and before any attack of any kind (even minefield or Residual FP) can be conducted vs it, the Japanese player may also place onboard a 9-0 Infantry leader stacked with that crew. If he does, that armor leader permanently ceases to exist.

1.42 *HEROES:* Japanese Heroes can be created via Heat of Battle (A15.1). In addition, Japanese squads and HS may create "suicide" Heroes:



1.421 *TANK-HUNTER (T-H) HEROES:* An armed, Good Order Japanese Infantry squad/HS that in *its* MPh is within eight MF of, or at the start of *its* APh is ADJACENT to, or during the *enemy* MPh is able to conduct a CC Reaction Fire attack vs, or at the start of the CCPh is the DEFENDER in the same Location as, an enemy AFV in its LOS may at that time make one attempt to create a T-H Hero[7] [EXC: no attempt is allowed if that MMC is marked with a Prep/Bounding/First/Final Fire or Pin/TI counter]. It does so by making a Final dr (Δ) of ≤ 3; cumulative drm are +1 if a HS, +2 if a Conscript, and −2 if possessing a DC it will give to that Hero (see 1.424). An Original 6 dr pins that MMC unless it is conducting a Banzai Charge.

A T-H Hero creation attempt is a "?"-loss activity (A12.141). An attempt made in the MMC's MPh costs no MF (and hence qualifies neither it nor any resulting Hero as a target of Defensive First Fire), but if it is to be made after the MMC has expended MF it must await the resolution of all Defensive First Fire prompted by the MMC's immediately preceding MF expenditure. An attempt made in the CCPh must await the determination of any possible Ambush, and the resolution of all (if any) ATTACKER Ambush attacks, in that Location. A stack of MMC may attempt to create T-H Heroes "simultaneously", but must make individual dr; if this is done during a friendly MPh/APh, those MMC who rolled "simultaneously" can then move/advance in that phase only as a stack. When a T-H Hero is created (or voluntarily loses HIP; 1.422), the AFV (or unit/Fortification; 1.424) that allowed his appearance becomes his Designated Target. If ≥ two such targets qualify, the T-H Hero's owner must choose one of them as the Designated Target.



In each Player Turn, an allowed MMC can theoretically create two T-H Heroes; one each in the MPh and APh when it is the ATTACKER, or one each in the MPh and CCPh when it is the DEFENDER. However, the total number of T-H Heroes allowed per scenario may not exceed 10% (20% vs Russians) of the number of Japanese *squads (only)* in the OB prior to 1943, 20% of that number in 1943, 33% of that number in 1944, and 50% of that number in 1945 (FRU in all cases). The total allowed number of T-H Heroes yet to appear onboard is kept

track of in the same manner as PF shots (C13.31), using the T-H Heroes Remaining marker.

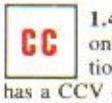
1.422 *HIP:* In a 1944-45 scenario in which at least some Japanese units set up onboard, any number of T-H Heroes (up to the allowed total; 1.421) may be set up using HIP in lieu of being created during play. A hidden T-H Hero can lose HIP involuntarily in the normal manner, but can lose it voluntarily only at the times and in the circumstances in which a T-H Hero may be created during play [EXC: the presence of a "creating" MMC is not required]. When his HIP is lost, all rules for T-H Heroes go into effect for him [EXC: he might be eliminated immediately; 1.425].

1.423 *USE:* A T-H Hero has no Hero DRM (A15.24), may not possess a Gun or a SW other than an ATMM (1.4231) *or* a DC *Transferred* to him as per 1.424 (thus he may not use MOL even if his side is otherwise allowed to), may not attempt Recovery (or Transfer except to receive a DC as per 1.424), and may not become PRC. When a T-H Hero is created or voluntarily loses HIP, he must immediately:

- make a Banzai Charge (1.5; see also below) at his Designated Target AFV, if it is the Japanese MPh; or
- make a CC Reaction Fire attack vs that AFV, if it is the opponent's MPh; or
- advance into that AFV's Location, if it is the Japanese APh; or
- remain in that AFV's Location, if it is the CCPh.

During the CCPh the T-H Hero must also attempt to attack that AFV if in its Location. Assault/Hazardous Movement being employed by the creating MMC does not apply to the T-H Hero, nor does that MMC's CX status (if any). A T-H Hero created during a friendly MPh by a MMC that has *already* expended MF has two MF (one MF, if that MMC is conducting a Banzai Charge) deducted from his eight-MF allotment for each MF that MMC has already expended, but conducts his Banzai-Charge MPh *before* that MMC continues its MPh. While he is doing so, that MMC and all other units moving with it as a stack/Impulse are temporarily considered non-moving [EXC: they can still be affected by new Spraying Fire, Fire Lane and Aerial attacks directed at a T-H Hero but also hitting their Location, and their current movement status (FFMO/FFNAM, etc.) would apply]. A vehicle may *not* make a Motion Attempt (D2.401) based on a T-H Hero's MF expenditure.

A T-H Hero making a Banzai Charge *does not have his Morale Level increased by one*, and must move individually (i.e., as part of neither a stack nor a multi-unit Impulse). During his Charge he may enter an enemy-occupied hex only if it contains his Designated Target or is ADJACENT to that Target. A T-H Hero who is in his Designated Target's Location during his MPh may make a CC attack vs it at that time, provided he has survived all Defensive First Fire allowed against him by his immediately previous MF expenditure; that Location is then marked with a CC counter. A T-H Hero who is ADJACENT to his Designated Target at the start of his APh must advance into that Target's Location if able to do so.



1.4231 *CC & ATMM:* A T-H Hero has one FP which is usable only in CC vs Personnel (hence for rout [A10.5] and Interdiction purposes he is Unarmed and has no Normal Range), and has a CCV of 5. In addition, before making his CC attack he may roll for an ATMM:[8] a Final dr of ≤ 3 succeeds; however, an Original 6 dr does *not* pin him (1.4). The only possible drm is a +1 which applies if the scenario is pre-1944. No other Japanese unit may roll for an ATMM. A T-H Hero attacking/defending together with a MMC merely adds one to that MMC's FP (A11.14) or CCV (A11.5); however, vs a vehicle, his ATMM DRM (if any) can apply to that combined attack (C13.73).



1.424 *DC HERO:* A unit allowed to create a T-H Hero may, if possessing a DC, make such an attempt in its own MPh provided it is within eight MF of and has a LOS to *any* enemy unit/Gun and/or to any enemy-Controlled hex that contains a Known Fortification counter; being within eight MF of and having a LOS to an enemy AFV is not required in this case. If the T-H Hero is created (the DC adds a −2 drm to this attempt; 1.421), that DC is automatically Transferred to him and he is then termed a DC Hero. A DC Hero is treated the same as a T-H Hero except as stated otherwise. A DC Hero may not Place/Throw a DC in the normal manner, and may not make a CC attack.

A DC Hero must declare as his Designated Target (and hence during his MPh must Banzai Charge) the enemy *unit/Gun/Fortification* that allowed his creation. When in that Target's Location (or hex, for a pillbox) during or at the end of his MPh, he may detonate his DC at that time (and does not expend a MF as per A23.61 to Place it), provided he has survived all Defensive First Fire allowed against him by his immediately previous MF expenditure. The DC attack is otherwise resolved as if Placed [EXC: if he is above a Bank or Panji counter, see 8.212 or 9.211 respectively]. See also 1.612.

Any unbroken Japanese Infantry unit possessing a DC may, in lieu of Placing it in the *normal* manner (A23.3; 1.612), detonate it immediately during or at the end of its own MPh in the same manner as a DC Hero (and consequently is eliminated as per 1.425).

1.4241 *FORTIFIED BUILDING:* If a DC Hero's Designated Target is in a Fortified Building Location he cannot enter (B23.922), while ADJACENT to that Location he may expend two MF during his MPh as if attempting to enter it (or one MF if entry would be via a stairwell). If he survives all Defensive First Fire allowed by that MF expenditure, he may then immediately detonate his DC (1.424 applies) in an attempt to create a Breach as per B23.9221. If a building's Fortified status is unknown to a T-H Hero when he attempts to enter it, his building-entry expenditure still qualifies him to detonate his DC in the same manner.

1.425 *LOSS:* If not eliminated beforehand, a non-hidden T-H Hero is removed from play immediately upon making his CC/DC attack vs his Designated Target (even if his DC's Effects DR is ≥ its X#).[9] If he does not make such an attack, he is removed either at the end of the Player Turn in which he was created (or lost HIP) or, if in Melee at that time, immediately when he is no longer in Melee. If a T-H Hero's Designated Target is eliminated before he can reach/attack it, he is immediately eliminated. The elimination of a DC Hero also eliminates his DC.

A T-H Hero who loses HIP status involuntarily (see 1.422) is immediately eliminated unless his HIP loss occurs either during the enemy MPh and he makes an immediate Reaction Fire attack (D7.2) or during a CCPh in which he is a DEFENDER in the same Location with an enemy unit (A11.19). If a hidden T-H Hero who is the *only* DEFENDER unit in his Location is eliminated due to being involuntarily revealed by the entrance of his Location during the enemy MPh (A12.15; but note also G.4), that enemy unit/stack is *not* returned to its previous Location and forced to end its MPh; it remains in the (now dead) hero's Location and may continue its MPh if otherwise able.

1.5 *BANZAI CHARGE:* A Banzai Charge is the Japanese version of a Human Wave (A25.23), and uses all rules applicable to Human Waves except as stated otherwise. Any Good Order Japanese Infantry unit (even one SMC) may declare a Banzai Charge, even if ADJACENT to an enemy unit; hence a Banzai Charge does not require multiple MMC in ≥ three ADJACENT hexes. However, units in different hexes wishing to participate in the same Banzai Charge must still be ADJACENT to ≥ one other such unit in order to be part of that chain. A leader must participate in each Banzai Charge that includes ≥ one MMC. [EXC to all: a T-H Hero who is created (or voluntarily loses HIP) in a Japanese MPh *must* make his own Banzai Charge as per 1.423].



"Banzai" and "Lax" markers have been provided for player convenience. Each unit/stack that performs a Banzai Charge should be marked as Lax (see 1.6) at the end of its MPh if it is in (or able to advance into) an enemy-occupied Location.

1.6 *MISCELLANEOUS:* Good Order Elite and 1st-Line Japanese Infantry (including crews) are Stealthy, while Conscripts are Lax [EXC: all Japanese Infantry that make a Banzai Charge are Lax for the rest of that Player Turn].

1.61 *ORDNANCE & OBA:* Japanese ordnance uses black TH numbers unless captured. Japanese OBA receives five black and two red cards/chits, and achieves Accuracy (C1.3) on a Final dr of ≤ 1.



1.611 *MMG/HMG/ATR:* A *Japanese* ATR/MMG/HMG (including .50-cal) SW being fired by a Japanese squad/HS has its B# and Multiple ROF lowered by one (A.11 applies). However, these SW are not considered crewed weapons for Captured-use purposes (A21.13).

EX: A Japanese ATR being fired by a U.S. HS is subject to normal—not doubled—Captured-use penalties.



1.612 *DC:* If otherwise able and allowed to, Japanese [EXC: DC Hero; see 1.424] may Place/Throw DC into their own Location (A23.61). A DC Placed in the *normal* manner (A23.3) but in its possessor's own Location can attack only enemy/Melee units

(A7.4) and terrain/Fortifications. Any DC attack (including MPh detonation; 1.424) made vs an AFV in the same Location as the unit possessing that DC requires a Target Facing dr (D3.2) and a Position DR (C7.346). See also 1.424.

1.6121 *A-T SET DC:* During his onboard setup for a 1945 scenario vs other than Russians, the Japanese player may set up ≤ 25% (FRU) of the DC in his OB unpossessed in paved/unpaved road [EXC: bridge] Locations. Such DC are termed A-T Set DC,[10] and are treated as normal Set DC except as stated otherwise. An A-T Set DC always uses HIP, even if its road Location contains no Concealment Terrain. An A-T Set DC is never revealed by enemy LOS, but is eliminated by OBA as per A9.74 or when its Location is Searched by the enemy. It may be detonated only by the one Infantry unit (even a hidden T-H Hero) predesignated on paper during setup as allowed to do so; detonating it is not a "?"-loss activity. An A-T Set DC may be detonated only as Defensive First Fire, and only as a *vehicle* enters its Location using the road. If the DC successfully detonates, the vehicle becomes a Blazing Wreck (or, if it has no Wreck side, is simply eliminated with no PRC survival); if Infantry are using Armored Assault with it they are considered attacked by a normal Set DC. Once set up, an A-T Set DC cannot be Recovered.

1.613 *DAISY CHAIN:* Prior to his setup, the Japanese player may always convert any/all available A-T mine factors to Daisy Chains (B28.531).

1.62 *MORALE:* Japanese are exempt from taking PAATC (inclusive of A12.41) and the NTC for an Infantry OVR (A4.15). They do not Disrupt, nor will they surrender in the RtPh. *Unbroken* Japanese treat LLMC as LLTC, and if Encircled do not have their Morale Level lowered by one. On a Final Heat of Battle DR of ≥ 9, Japanese become berserk (A15.5) [EXC: if in a pillbox they become Battle Hardened instead]. Japanese cannot create leaders (A18), but may still attempt Self-Rally (including automatic rally on an Original 2 DR as per A18.11). For SMC see also 1.4-.41.



1.621 *NO-QUARTER/PRISONERS:* In scenarios set in/after 6/42, No Quarter (A20.3) is always in effect and Mopping Up cannot be used; these apply to both the Japanese and their opponents. Japanese may conduct Massacres (A20.4), but if taken prisoner will not attempt Escape (A20.55). A non-Russian Interrogating a Japanese MMC in a 1944-45 scenario may add a −1 DRM to his Interrogation DR. See also 1.641.

1.622 *BATTLEFIELD INTEGRITY:* Step Reduction *from Full-Strength to Reduced-Strength* never affects the current Japanese Casualty Tally. A Full- or Reduced-Strength infantry-crew that for any reason is exchanged for a vehicle-crew is treated for Casualty Tally purposes like a squad being Reduced to a HS (A16.11). The BPV of a unit that eliminates itself as per 1.641 is not added to the Japanese Casualty Tally. The Japanese side may always add a −2 DRM to its Integrity Check DR. Otherwise, Battlefield Integrity applies unchanged when in effect.

EX: The Japanese Casualty Tally does not change if a Full-Strength 4-4-7 squad is Step-Reduced to a 3-4-7 squad, since no MMC was lost. However, if a 4-4-7 suffers Casualty Reduction, or if a 1st-line Reduced-Strength 3-4-7 squad suffers Step Reduction or Casualty Reduction, the Japanese Casualty Tally is increased by seven (13 [Full-Strength BPV]—6 [HS BPV]=7), because a HS was lost. A Full- or Reduced-Strength infantry-crew or 2nd-line squad that is captured in CC or eliminated by the enemy increases the Japanese Casualty Tally by its normal BPV of ten; while a captured or thusly eliminated vehicle-crew increases it by eight, regardless of whether or not that vehicle-crew is broken and/or had originally been an infantry-crew. A Full- or Reduced-Strength infantry-crew that is exchanged for a (broken or not) 1-2-7 vehicle-crew increases the Japanese Casualty Tally by two (10 [infantry-crew BPV]−8 [vehicle-crew BPV]=2).



1.63 *CONCEALMENT:* Japanese Infantry receive a −2 drm to their Concealment dr (A12.122). A Search dr (A12.152) made by the opponent of the Japanese receives a +2 drm unless the only Concealment Terrain he is attempting to Search is building/rubble (including woods-building/woods-rubble) terrain.

1.631 *HIP:* The Japanese player in a daytime scenario may always use HIP for ≤ 10% (FRU) of the MMC squad-equivalents (A5.5) in his onboard-setup OB and any SMC/SW [EXC: DC Hero; 1.424] that set(s) up stacked with them. In a night scenario the Japanese player may always use HIP for ≤ 25% of his MMC squad-equivalents that set up onboard, even if he is not the Scenario Defender—and if he *is* the Scenario Defender he also receives Dummy counters equal to the number of MMC squad-equivalents in his OB; otherwise, E1.2 applies unchanged. These HIP capabilities are in addition to HIP granted for any other reason(s) [EXC: E1.2].

EX: The Japanese onboard-setup OB for a daytime scenario includes ten squads and two infantry-crews. Since the two crews are equivalent to a squad (A5.5), and disregarding Deployment (A1.31), he may use HIP for one squad and both crews—or for two squads even if the crews are manning Guns that would set up using HIP anyway (A12.34). (Note that a crew set up manning a Gun counts as a squad for *stacking*—not for HIP squad-equivalency—purposes; and that leaders do not count towards total squad-equivalency for Japanese HIP purposes.) If it were a night scenario he could use HIP in the same manner, but for three squads or for two squads and both crews and even if he were *not* the Scenario Defender. In all cases, if the scenario is DYO he does not purchase this HIP—it is free (1.66); and any HIP granted by, e.g., A12.34/SSR/DYO-purchase simply increases the total number of units he can set up hidden. Hence in a daytime DYO scenario the Japanese player could purchase HIP for 10% of his MMC squad-equivalents but could set up 20% of them hidden (see footnote 7 in H1.6); at night he could set up all of his MMC squad-equivalents hidden by purchasing HIP for 75% of them.



1.632 *PILLBOX:* A pillbox set up in Concealment Terrain by the Japanese player may *always* use HIP, and is revealed as if it were set up in jungle (see G.2). The use of HIP includes the pillbox's occupant(s), and is in addition to the percentage of units otherwise allowed to use HIP. Whenever the Japanese player sets up a pillbox he also receives the use of a tunnel which has that pillbox as one of its entrances. He cannot use the tunnel (i.e., it does not exist) if it does not otherwise meet its standard "setup" requirements (all tunnel rules [B8.6-.62] apply in the normal manner), and he always has the option of secretly recording that it does not exist. A Japanese unit in a pillbox *may move* through its tunnel even if an enemy unit is in the pillbox's hex. More than one tunnel may connect to the same Location. See also 1.62.



1.64 *CC:* Whenever ≥ one unbroken Japanese Infantry/Cavalry unit is the ATTACKER in CC/Melee or Ambushes the enemy in CC, that CC/Melee automatically becomes Hand-to-Hand (J2.31) unless every such Japanese unit participating in it was Ambushed in that phase and/or is Withdrawing/pinned. However, Hand-to-Hand CC can never be used by/vs any vehicle(s)/PRC/pillbox-occupant(s). Each Japanese *Hand-to-Hand* CC attack receives an *extra* −1 DRM unless every Japanese Infantry/Cavalry unit participating in that attack is pinned/Unarmed.[11] Hand-to-Hand CC may be voluntarily declared only in *Deluxe ASL* and *RED BARRICADES*. A Reduced-Strength Japanese unit retains its Full-Strength CCV. See also 1.62.

1.641 *HARA-KIRI:* Immediately prior to resolving a CC *Capture* Attempt (A20.22; A20.54) vs a Japanese Personnel unit, that Japanese unit—even if it had declared a CC attack (but not if it has already made that attack)—may attempt to eliminate itself. If berserk/heroic it may automatically eliminate itself. Otherwise it must pass a NTC (△), to which the following DRM can apply: −2 if it is defending together with another SMC (A11.14) that has just eliminated itself; −1 if it is Inexperienced; +1 if it is Unarmed. If a SMC and MMC (or two SMC) are defending together, the best SMC must attempt (or commit) Hara-Kiri first; for this purpose, all heroic types are considered equal (and better than any non-heroic unit type). The opponent does receive Casualty VP for each unit eliminated by Hara-Kiri [EXC: non-leader Hero; 1.65]. If a unit attempting Hara-Kiri fails its NTC, it may not make a CC attack in that phase and that Capture attempt vs *it* receives an additional −1 DRM (maximum of one such DRM per Capture attempt).

1.65 *VP:* The opponent does not gain Casualty VP when a Japanese Full-Strength squad or infantry-crew is flipped over to its Reduced-Strength side, nor when a Reduced-Strength infantry-crew is exchanged for a broken vehicle-crew. An eliminated Japanese leader grants Casualty VP as per its currently face-up side. An eliminated Japanese hero of any type [EXC: heroic leader] grants no Casualty VP. See also 1.641.

1.66 *DYO:* No Reduced-Strength Japanese squad/crew may be purchased. The BPV cost of raising the Japanese SAN (H1.29) is half the normal cost. The Japanese Leadership Generation factor (H1.8) is "5". For leadership quality (H1.81), use 9-0 (instead of 8-0) leaders as the basis for the Japanese OB, and an 8-0 for each 7-0 normally allotted. See p.H98 for the Japanese versions of various DYO tables and charts. The specially allowed uses of HIP (1.422; 1.631-.632) cost no purchase points. Generally, Japanese Conscripts should appear in a scenario OB only to represent normally non-combatant (e.g., base and construction) Japanese troops. Japan's allies, such as the Indian National Army or Chinese "puppet" troops, should be represented by Axis Minor units (which for the most part should be Conscripts) and rules, and are not considered Japanese for any purpose.

1.661 *AFV (H1.4):* The BPV (prior to any addition for optional armament) of each AFV purchased by the Japanese player for a 1944-45 scenario is halved (FRU) *if* that AFV will be set up beneath a separately-purchased Trench counter (see B27.51-.52).

1.662 *OBA (H1.5):* The *final* cost of a Japanese Bombardment (H1.53) is *further* increased by 50% (FRU), as is the *final* cost of each Japanese OBA battery that will have Creeping Barrage capability (E12.7).

1.6621 *AIR SUPPORT (E7.):* For a pre-1939 scenario vs Chinese, the Japanese Air Support Availability numbers are "5⁴". Japanese Observation Planes (E7.6) may be used only for OBA of ≥ 100mm, and their availability is 1937-43 inclusive.

1.663 *FORTIFICATIONS (H1.6):* The BPV of each "?", trench (excluding A-T ditch), pillbox and tunnel purchased by the Japanese side is halved (FRU). The halved pillbox cost includes its Inherent tunnel (1.632), even if that tunnel is not used. The BPV of all wire and all mine factors [EXC: A-T factors used as Daisy Chains] purchased by the Japanese side is increased by 50% (FRU).

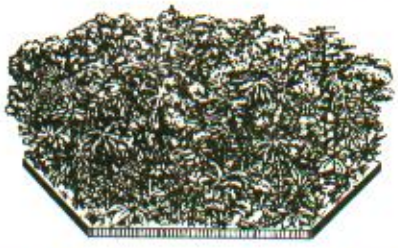
1.664 *PARATROOPERS:* Japanese paratroopers may not be purchased prior to 1942. Japanese paratroopers retain possession of (i.e., drop with, as Inherent contents of a ⅝" parachute) LMG and light mortars. Japanese ½" parachutes may not drop as part of ⅝" parachute Sticks; instead, they must drop in separate Wings (of ≤ five Sticks each), with each Stick composed of one or two ½" parachutes.





2. JUNGLE

2.1 Whenever PTO Terrain (G.1) is in effect, all woods become jungle. If not defined as Light, the jungle is considered Dense (2.2). The term "jungle" by itself refers collectively to both types. *Jungle is treated as woods except as stated otherwise.* Jungle is a two-level obstacle. If jungle is in effect for a DYO scenario but its type is not specified/agreed-upon, make a dr prior to setup. If the dr is ≤ 3 use light jungle; otherwise use dense.



2.2 *DENSE JUNGLE:* A dense-jungle hex has a +2 TEM [EXC: −1 TEM vs Air Bursts]. Infantry/Cavalry stacking limits are reduced to two (Overstacking can still occur) in dense-jungle hexes that do not contain a road/building. A dense-jungle hex is Inherent Terrain (B.6), thus blocking LOS along its hexsides [EXC: same-level LOS may be drawn along any such hexside that is completely clear of land terrain (e.g., a hexside pond, or river hexside, that has no land terrain touching that hexside); such hexsides are *not* part of the dense-jungle Inherent Terrain]. A non-ADJACENT ground unit at a different level than that of a dense-jungle road hex's Base Level can have a LOS to/through that hex via its road portion only if that LOS is along a Continuous Slope. An Aerial unit has no LOS to any non-Aerial (including the in-hex road) portion of a dense-jungle hex. Reciprocity (A6.5) applies.

2.21 *ENTRY:* Normal woods entry costs (including those for path/TB if applicable) apply to entering dense jungle.[12] However, horses may be "led" into a dense-jungle Location only if using a road, path or TB, while Cavalry may enter only if using a road or path (see also 2.4). The only vehicles that may enter a dense-jungle Location without using a road/TB are full-tracked AFV [EXC: tankettes and Carriers are NA] and dozers. These vehicles can also create TB in dense jungle as per B13.421 (see also 2.211).

BOG 9#≥12

2.211 *BOG:* If a vehicle is required to take a Bog Check (as per B13.41) upon entering or changing VCA in dense jungle, a +2 DRM must be added to its Bog DR [EXC: this DRM does not apply to a dozer that declared it was dozing and then entered dense jungle by expending its entire printed MP allotment other than any for Starting/Stopping/changing-VCA; nor does it apply to a dozer that changes VCA while dozing in dense jungle].

EX: An M4 Sherman tank that enters dense jungle by expending half of its printed allotment (B13.42) while not using a road or TB receives a +6 Bog DRM (+3 [entry using half its MP allotment] + 2 [dense jungle] + 1 [normal ground pressure] = +6). If it instead enters by expending its entire MP allotment (B13.41) it will receive a +3 Bog DRM (+2 [dense jungle] + 1 [normal ground pressure] = +3). If the Sherman were a tankdozer, entry by expending its entire MP allotment would incur the same total +3 Bog DRM *unless* its owner had first declared that it would doze, in which case the +2 dense-jungle DRM would not apply. Nor would that +2 DRM apply if the dozer changed VCA in dense jungle, provided again that its owner had first declared it to be dozing. In all cases, a partial TB would be placed in the dense-jungle hex when (and from the hexside across which) the tank(dozer) entered, but that TB would be removed if the vehicle then bogged (B13.421-.4211).

2.212 *BYPASS:* Bypass is NA in a dense-jungle hex [EXC: an amphibious vehicle may use VBM along a water hexside (as defined in 2.2) by expending one amphibious MP].

2.213 *AERIAL:* Even a ½" parachute must take a Landing MC (E9.42) using a Morale Level of 7 when it lands in dense jungle. *Any* chute that fails its Landing MC in dense jungle is eliminated (along with its contents).

2.22 *STRAYING:* In a *daytime* scenario, a non-subterranean Infantry unit/stack that in its MPh is in an *Interior* dense-jungle hex (i.e., a woods hex adjacent to six other woods/brush/marsh hexes) and wishes to move to a new hex must make a Movement DR (and hence possibly a Straying DR as well) unless it has already done so in its current MPh, is conducting a Banzai Charge (1.5), or is/contains a unit defined as a Partisan. E1.53-.533 still apply [EXC: Illumination is NA], as do the following:

- A Strayer instead becomes TI if the ADJACENT Location it must enter next is not a jungle/bamboo hex;
- Jitter Fire (E1.55) does not apply.

2.23 *FIRE GROUP:* A unit in dense jungle has restricted FG capabilities; see G.3.

2.24 *MORTAR:* No mortar may fire from a dense-jungle (including such a jungle-road) hex.[13]

NVR 6 cir

2.3 *NIGHT:* No LOS exists at night between adjacent dense-jungle hexes except due to Illumination/Gunflash. Neither star-shells nor IR can Illuminate the non-Aerial portion of a jungle hex [EXC: they can Illuminate the Bypass area of light-jungle hexes in which E1.941 does not apply]. See also G.8.

2.4 *CAVALRY:* Cavalry may Gallop (A13.36) in jungle only along a road, and may not Charge in a jungle hex.

2.5 *FIRE:* The Kindling and Spread numbers for jungle are "12".

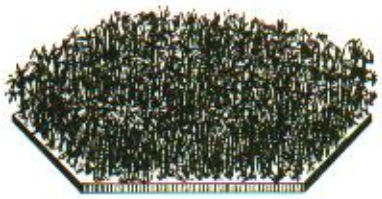
2.6 *SHELLHOLES:* Shellholes can occur in jungle, in which case the jungle terrain (and any Flame/Blaze already in it) is considered to no longer exist at all.



2.7 *CLEARANCE:* At the end of the CCPh, *one* armed MMC in each jungle/bamboo Location may make a Clearance (B24.7) DR in an attempt to Clear (i.e., create) a Path, provided that during the previous MPh/DFPh (whichever came last) it became TI in a declared attempt to do so. However, a unit may not make (or modify) a Path Clearance DR while pinned, entrenched, PRC, possessing > its IPC or any ⅝" counter, in Crest status, in a hex with a non-captured Known enemy unit, in a wire/building/minefield Location, above a Panji counter (9.71), not in Good Order, and/or not TI for path Clearance purposes; nor may it do so if during the current Player Turn it has fired, directed fire, been marked for Opportunity Fire or expended MF. A unit is Lax and subject to Hazardous Movement while TI for path Clearance. The *only* DRM possible for a Path Clearance DR are +x for Labor Status, +y for leadership, +1 if CX, +1 if the hex is bamboo, and −1 if the hex is light jungle. If the Clearance DR is successful, a Path counter is placed in the MMC's hex connecting any two of its hexsides. A Path counter is removed only when its Location contains a Shellhole/Rubble counter or Terrain Blaze. All paths in the same hex are assumed to connect to each other, and to all roads/TB, in that hex. A Path counter is equivalent to a printed path in all respects.

2.8 *MISCELLANEOUS:* Special rules for Fortification HIP, Detection, Recovery and Ambush apply in jungle; see G.2, G.4, G.5 and G.6 respectively.





3. BAMBOO

3.1 Whenever PTO Terrain (G.1) is in effect, all brush becomes bamboo. *Bamboo is treated as dense jungle except as stated otherwise.*

3.11 *BROKEN UNITS:* A broken unit may claim a −1 Rally DRM in bamboo only if in a pillbox. A broken unit is not required to rout to the nearest bamboo hex.

3.2 *ENTRY:* Infantry may enter bamboo only via Minimum Move (A4.134), Low Crawl (A10.52) or Advance vs Difficult Terrain (A4.72) [EXC: they may use a path/TB, but if they do they may not then exit that bamboo hex via a non-path/non-TB hexside during that same phase]. Infantry may "lead" horses into/out-of bamboo only along a path/TB, and Cavalry may enter/exit bamboo only along a path. Manhandling *into* bamboo is NA except along a TB. For Defensive First Fire purposes, the number of MF considered expended during a Minimum Move into bamboo equals the unit's printed (or Inherent) MF allotment plus one (or plus two, at night).

3.21 *STRAYING:* Straying can occur in an *Interior* bamboo hex (i.e., a brush hex adjacent to six other woods/brush/marsh hexes) as per 2.22.

3.22 *SEARCHING:* Searching an Accessible bamboo hex counts as Searching *two* hexes.

EX: If a unit's Final Search dr is ≥ "5" it cannot Search an Accessible bamboo hex. If that dr is a "4" the unit can Search one Accessible bamboo hex *or* two Accessible non-bamboo hexes. If that dr is a "3" the unit can Search one Accessible bamboo hex and one Accessible non-bamboo hex, *or* three Accessible non-bamboo hexes.

3.3 *LOS/TEM:* Bamboo is a one-level obstacle and normally has a +1 TEM. However, its TEM is −1 for any DC, Bombardment or ordnance/OBA HE attack [EXC: not for any type of HE Equivalency or Specific Collateral Attack, nor vs a Partially Armored AFV] vs an unarmored target in it. The Residual FP of an attack that received the bamboo −1 TEM is *increased* by one IFT column (like Air Bursts; A8.26).

EX: A 75mm Gun using the Area Target Type to fire at Infantry in bamboo attacks with six FP and a −1 DRM (bamboo TEM) on the IFT, and a hit can leave four Residual FP instead of two. If it instead uses the Infantry Target Type it applies the bamboo −1 TEM as TH Case Q, and a hit can leave eight Residual FP instead of six.

3.4 *GUN:* A Gun set up in bamboo is never considered Emplaced, but may still use HIP as per A12.34 unless otherwise prohibited. A non-vehicular Gun in bamboo has its firing and CA-change capabilities restricted as per B9.531. See also 3.2.

3.5 *FORTIFICATIONS:* Neither wire nor entrenchments may be placed in bamboo, but pillboxes/mines or Panjis (9.) may. See also G.2 for HIP.

3.6 *FIRE:* The Kindling and Spread numbers for bamboo are "10". However, the applicable EC DRM is *doubled* when checking for Kindling in, and for Fire Spreading to/within, bamboo.[14]

EX: Infantry attempting to Kindle bamboo during Wet EC must add a −4 EC DRM to their Kindling DR (−2 [Wet EC DRM] × 2 [bamboo] = −4). A Flame-to-Blaze DR (B25.151) made for a Flame in bamboo during Dry EC would receive a +2 EC DRM.

3.7 *PARACHUTES:* All parachutes landing in bamboo are treated as if landing in woods; i.e., E9.42 applies in the normal manner.

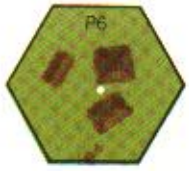
3.8 *MISCELLANEOUS:* Special rules for FG, Detection, Recovery, Ambush and trip flares apply in bamboo; see G.3, G.4, G.5, G.6 and G.8 respectively.





4. PALM TREES

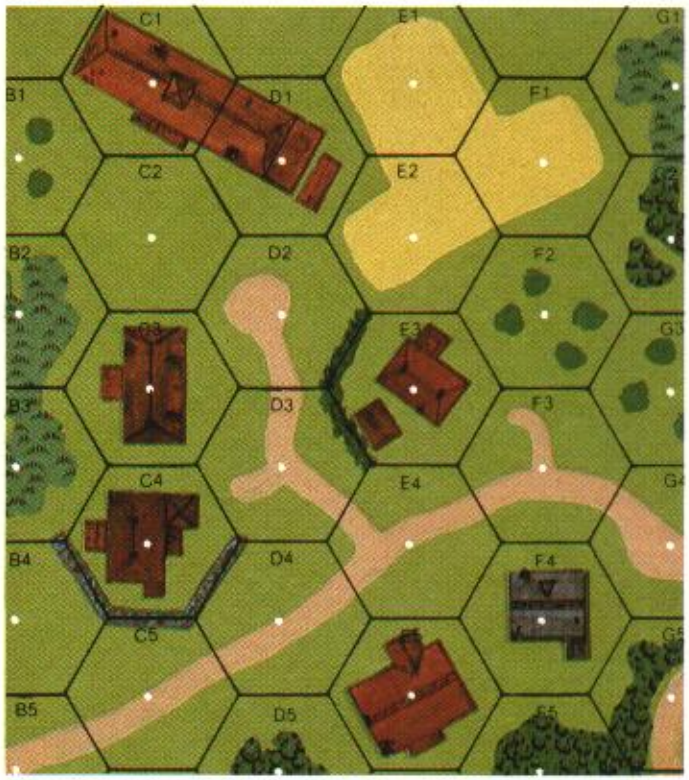
4.1 Whenever PTO Terrain (G.1) is in effect, all orchard hexes become palm tree hexes.[15] *Each palm tree hex is treated as a normal orchard hex except as stated otherwise.* Palm trees are always in season, and their Kindling and Spread numbers are "11".





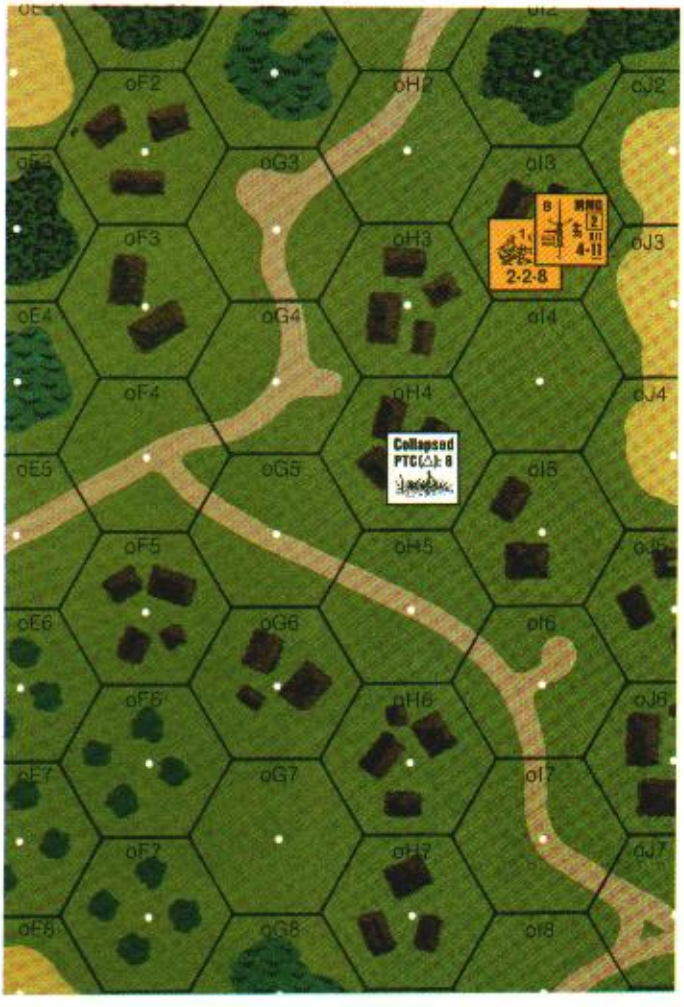
5. HUTS

5.1 Whenever PTO Terrain (G.1) is in effect, each *wooden* Single Story House (B23.21) whose hex contains ≥ two separate buildings, but no *partial* building depiction, becomes a hut. *Except as stated otherwise, huts are treated as wooden Single Story Houses (unless Collapsed; 5.51)* and all huts in the same hex are considered one hut for rules purposes.



EX: If PTO Terrain is in effect, 32E3 becomes a hut hex but the other building hexes do not. The small outbuilding in D1 can never be a hut, because that hex also contains the *partial* overhead depiction of another building.

5.2 *LOS:* A hut is a *one-level* +1 LOS Hindrance like an out-of-season orchard (B14.2), but only if the LOS crosses ≥ one building depiction in that hex and the hut is not Collapsed. However, a hut (whether Collapsed or not) can thusly Hinder LOS/LOF even to a unit Bypassing in that hut's Location unless the viewing/firing unit is also in that same Location and is *not* in Bypass. For a Collapsed hut see also 5.51. A hut is never a LOS obstacle.



EX: The crew's LOS to oI6, oI7 and to vertex oI5-oI6-oH5 is Hindered by the oI5 hut. The crew's LOS to oF3 (except to hexside oF3-oF2) is Hindered by the oH3 hut. The crew's LOS to another unit in oI3 (even one Bypassing therein) would not be Hindered by the oI3 hut, nor would the crew's LOS to a *non*-Bypassing unit in oH6 be Hindered by the oH6 hut depiction which that LOS crosses. However, a LOS from vertex oI3-oI2-oJ2 to vertex oH6-oH7-oG7 would receive a +2 Hindrance for the huts in oI3 and oH6, while a LOS from vertex oI3-oI2-oJ2 to vertex oI3-oI4-oH3 (or to oI3-oH3-oH2) would be Hindered by the oI3 hut. All these same Hindrances (or the absence thereof) would apply even if oI3 were also a level 1 hill hex. If oI3 were also a level 2 hill hex, the crew's LOS to oI7 and oF3 (except to vertex oF3-oE4-oE3) would now be clear (B14.2), but all other above-mentioned LOS would remain unchanged.

5.21 *FIRE LANE:* A hut does not affect a Fire Lane [EXC: it cancels the FFMO DRM of each target Hindered by that hut].

EX: See the 5.2 illustration. If the crew sets up a Fire Lane through oI7, any unit entering oI6 or oI7, or entering oI5 by Bypassing along hexside oI5-oI6, will be attacked by two FP but neither the hut Hindrance nor the FFMO DRM will apply.

5.3 *TEM:* A hut has a +1 TEM unless it is Collapsed. A hut may not be Fortified as per B23.9.

5.31 *HEAT:* A hut is not considered a building vs HEAT ammunition (C8.31). However, if firing HEAT at a vehicle/Gun in a non-Collapsed hut, its TEM still applies for TH purposes.

5.32 *BOMBARDMENT:* A hut has a Morale Level of 7 vs Bombardment (C1.822), and Collapses if it fails such a MC. In addition, a Flame is placed in the hex if the Original Bombardment MC DR is ≥ 10.

5.4 *AFV/DOZER ENTRY: Any* Mobile AFV neither using VBM nor carrying a Rider(s) may enter a non-Collapsed hut, but only if it is BU and not Recalled. Such entry (see the Chapter G divider for the applicable cost) does not cause a building-entry Bog Check, incurs no risk of falling into a cellar (G.1), and automatically Collapses that hut before Defensive First Fire ensues. A Mobile dozer (whether armored or not) may enter a hut in the same manner as an AFV [EXC: the dozer need not be BU], and with the same ensuing effects/results [EXC: it never takes the PTC mandated by 5.5 for an AFV]. For entry of a Collapsed hut see 5.51.

5.41 *SETUP:* Any AFV may set up in a hut, but that hut will immediately Collapse if the AFV exits it or changes any CA while in it.

5.42 *VBM & OVR:* A hut, whether Collapsed or not, may be Bypassed in the same manner as a building, but must be entered in non-VBM fashion by any vehicle that wishes to OVR it/its-occupants.

5.43 *AERIAL:* A hut provides a +1 Crash drm vs a glider, but does not cause a NMC to a ⅝" parachute, that lands in its Location. A glider that lands in a non-Collapsed hut Location causes that hut to Collapse.



5.5 *COLLAPSE:* A hut cannot be rubbled. However, any KIA caused by a DC or HE attack [EXC: any Collateral/Residual-FP attack; an attack using the Vehicle Target Type] vs a non-Collapsed hut Location (even vs a Bypassing unit therein) causes it to Collapse after fully resolving that attack vs all occupants of that Location. A non-Collapsed hut also Collapses due to AFV/glider entry/CA-change (5.4-.43) or when it becomes Blazing (5.6). Place a Collapsed counter on such a hut.

Every (even a friendly/heroic/broken/berserk/Japanese-SMC) Infantry unit occupying a hut when it Collapses must take a separate PTC (Δ), as must the Inherent crew (only) of an AFV [EXC: dozer; 5.4] that enters or changes CA in a hut thereby causing its Collapse. Every unit (even if Inherent) is assumed to have a Morale Level of 8 when taking a Collapse PTC; the crew of a CT AFV receives a −1 DRM. Collapse PTC are taken *after* fully resolving all other effects of the attack (or of the AFV entry, including any OVR) that caused the Collapse, but before Defensive First Fire ensues if it is the MPh. A failed Infantry-unit Collapse PTC pins that unit, even if it is normally immune to pin results (a pinned broken unit would be unable to rout). A failed Inherent-crew Collapse PTC activates A7.82-.821 for that crew *and* every Passenger on that AFV [EXC: they all immediately become CE, and if it is the MPh they and the AFV immediately end their MPh Stopped (no Stop MP is expended)]; indicate their CE status and place a Pin counter on the AFV.[16]

5.51 Except as stated otherwise, a Collapsed hut is still considered a hut but is *not* considered a building. A Collapsed hut has no TEM but is a normal (i.e., not one-level) +1 LOS Hindrance (A6.7) across the building depiction(s) unless it is Blazing; hence it is not Open Ground. However, a Collapsed hut does not Hinder LOS/LOF to a unit Bypassing in that hut's Location *if* the viewing/firing unit's elevation is > that of the Bypassing unit and that LOS/LOF does not lie along a continuous slope. Any type of unit [EXC: motorcycle Rider; wagon] may enter a non-Blazing Collapsed hut (but a non-tracked vehicle doing so must check for Bog); see the bracketed MF/MP entries for "Hut" in the PTO Terrain Chart for specific costs (for Bypass/OVR see 5.42). A Collapsed hut cannot be Cleared (B24.7). The only Fortifications allowed in a Collapsed hut Location are wire/minefields or panjis (9.).[17] A Collapsed hut is Concealment Terrain only for Infantry (and their possessed SW), Dummy stacks and Emplaced Guns. Control of a Collapsed hut counts toward hut/building Control Victory Conditions [EXC: A26.13 applies if the hut is Ablaze], as will Control of its *hex* if it has been eliminated (5.7).

EX: See the 5.2 illustration. The crew's LOS to oG5, oG6 and to vertex oH4-oH5-oG5 is Hindered by the Collapsed hut in oH4. However, if oI3 were also a level-one (or higher) hill hex, its LOS would be clear to both of those hexes (A6.7) and to that vertex. Since oH4 is no longer a building it provides no rally bonus (A10.61), broken units are not required to rout (A10.51) to it, and Indirect/AA Fire is allowed from it. If Mud is in effect, it will increase the MF/MP cost to enter oH4 only if the unit is Bypassing that hut.



5.6 *FIRE:* A hut's Kindling and Spread numbers are "6" and "7" respectively, even if Collapsed. A Flame can be created in any hut as per B25.11-.14, as well as via the following methods. Any Small Arms PBF/TPBF, MOL, MG, IFE, DC or HE attack [EXC: AP HE Equivalency; a Collateral/Residual-FP attack *vs* any hut Location (even vs a Bypassing unit therein) causes a Flame in that hut if the Original colored dr of its Effects DR is a 1. Small-Arms/MOL/MG/IFE can thusly cause a Flame even if part of a FG; however, if using only Small-Arms/MOL, ≥ one unit in that FG would still have to qualify for PBF/TPBF. If > one hut Location can be set Aflame by the same attack (e.g., by Spraying Fire), use Random Selection if a Flame result occurs. A FT attack vs any hut Location automatically causes a Flame in that hut if its Original Effects DR is < its X#. Whenever WP is placed in any hut Location, make a subsequent DR as per A24.32 (using the applicable DRM listed therein) even if EC are not Dry or Very Dry. Whenever a Flame in a non-Collapsed hut becomes a Blaze, that hut immediately Collapses. A Blazing hut is indicated by marking it with the reverse side of a Collapsed Hut counter. See also 5.32 and 5.61-.8.

EX: A Small Arms attack vs a hut Location that results in a "1" colored dr in its IFT DR automatically causes a Flame in the hut (even if it is Collapsed) *provided* that PBF/TPBF applied (even as part of a FG that only partially qualified for PBF/TPBF). Note that a MG, IFE or HE attack vs a hut can cause a Flame even if not using PBF/TPBF.

5.61 *RAIN:* Since non-Collapsed huts are buildings, Flame creation in them is unaffected by EC DRM. However, once rain has occurred, Flame creation as per 5.6 no longer applies to *Collapsed* huts; i.e., only the methods given in A22.6111, A24.32 and Section B25 then apply to them (even if they Collapsed after the rain had ceased).

BAZ43 8-4

5.62 *BACKBLAST:* A PF/PFk/BAZ/PSK/RCL may be fired from inside a non-Collapsed hut without using the Case C[3] TH DRM (as would otherwise be mandated by C13.8). Firing it thusly automatically causes a Flame in the hut, but does not cause a C13.81 one-FP attack. Firing it thusly from a Collapsed hut causes neither the Flame nor the C13.81 attack. Note, however, that C12.3-.4 would still apply in all cases when firing a RCL.

5.7 *SHELLHOLES:* Shellholes can occur in a hut Location, in which case the hut (and any Flame/Blaze already in it) is considered to no longer exist at all.





6. KUNAI

6.1 Whenever PTO Terrain (G.1) is in effect, all grain becomes kunai.[18] *Kunai is treated as brush except as stated otherwise.* The Kindling and Spread numbers of kunai are "9" and "8" respectively. Special rules for Fortification HIP, FG, Detection, Recovery and Ambush apply in kunai; see G.2, G.3, G.4, G.5 and G.6 respectively.





7. SWAMP

7.1 Whenever PTO Terrain (G.1) is in effect, each marsh hex that is adjacent to ≥ one jungle hex becomes a swamp hex. *Swamp is treated as "non-flooded" (B16.6) marsh except as stated otherwise.* The effects of a swamp Location are not altered by the water depth of a stream/river. Swamp is never considered to be a Hindrance or Open Ground, or river or mudflat terrain.

7.2 *LOS/TEM:* Swamp is always a two-level obstacle with a +1 TEM [EXC: vs Air Bursts (and Bombardment) its TEM is −1]. In addition, a DC or ordnance-HE attack [EXC: mortar; HE Equivalency; an attack that used the Vehicle Target Type] vs an unarmored target in a swamp Location is halved on the IFT.

7.21 *SIGHTING TC:* Like woods, swamp provides a +3 DRM vs a Sighting TC (E7.3).

7.3 *ENTRY:* Swamp may be entered by amphibious vehicles as per B16.42, and by boats as if the swamp were a Water Obstacle (E5.3). When a boat is sunk in a swamp, E5.53 comes into effect as if the swamp were *shallow*; the surviving Passengers (if any) become Infantry (but not *Fording* Infantry; E5.532).

BOG DR ≥ 12

7.31 *BOG:* Each non- swamp/marsh/Water-Obstacle hex that is Accessible to a swamp hex, and whose Base Level is ≤ that swamp hex's Base Level, is a Bog hex vs a vehicle that is not on a road. A thusly Accessible stream hex would be a Bog hex due to swamp only if the stream is *dry*; if not dry, B20.46 would apply for Bog purposes.

7.32 *AERIAL:* All parachutes landing in swamp are treated as per 2.213 as if landing in dense jungle. A glider landing in swamp receives a +4 Crash drm (i.e., +1 for landing in "marsh" and +3 for landing in "woods"; E8.23).

7.4 *MISCELLANEOUS:* Special rules for FG apply in swamp; see G.3.





8. RICE PADDIES

8.1 Rice paddies (hereafter referred to as paddies) are a terrain feature of Overlay 3 and of each overlay whose ID is prefixed by "RP". A paddy consists of two parts: the *interior*, which is brownish-green on the overlay; and the *banks*, which are the narrow Open-Ground-color areas along the hexsides of that hex. Units in the interior of a paddy are said to be IN it, while those on (as opposed to just crossing) its banks are placed above a Bank counter (8.21) in the hex. Being "in" a paddy hex refers to being in either/both position(s). Units in a paddy hex are at level 0 (assuming the overlay is on level 0 terrain). Paddies will always be defined by SSR as being Drained, Irrigated or In-Season.[19] For DYO situations in which this information is not known, make a dr to determine the state of all paddies in the scenario:

RICE PADDY STATE

Final dr	State	drm	
≤ 2	In-Season	−2	EC are Dry or Very Dry
3-4	Drained	−1	EC are Moderate
≥ 5	Irrigated	+2	EC are Wet/Overcast/Mud

8.11 *DRAINED:* The interior of a Drained paddy is Open Ground aside from the cover provided by its banks; see 8.3.

8.12 *IRRIGATED:* No Fortification [EXC: mines/wire or panjis; 8.7], unhooked non-vehicular Gun (unless dm/being-Animal-Packed-[10.1]), Galloping/Charging Cavalry, Pushed/Ridden motorcycle or ridden bicycle is allowed IN an Irrigated paddy. Unpossessed equipment [EXC: horse; boat] IN an Irrigated paddy is eliminated unless in a vehicle or being Animal-Packed (10.1). The interior of an Irrigated paddy is Mud (see 8.5) and also Bog terrain; in addition to the +1 DRM for mud, the Bog DR of a vehicle IN an Irrigated paddy receives an extra +2 DRM for being IN such terrain. *Any* SW of ≥ 3 PP manned by Infantry IN an Irrigated paddy has a restricted field of fire as per A9.21. The FP of all DC and ordnance/OBA HE attacks [EXC: one using HE-Equivalency/the-Vehicle-Target-Type; a Specific Collateral Attack] vs an Irrigated paddy hex are halved on the IFT. A *white* SMOKE counter may not be placed in an Irrigated paddy hex. The MF cost of Manhandling a *boat* in an Irrigated paddy is *not* doubled as per C10.3.

8.13 *IN-SEASON:* The interior of an In-Season paddy is Grain; see 8.2, 8.4 and 8.6. However, it is Concealment Terrain only for Infantry (and their possessed SW), Dummy stacks, Fortifications and Emplaced Guns. Mud can exist IN In-Season paddies even though their interior is not Open Ground as defined in E3.65; see 8.5.

8.2 *ENTRY:* A unit enters a paddy hex either onto its banks (8.21) or INTO its interior. Except as stated otherwise (see 8.12, 8.22 and 8.8), the only units that may set-up-IN/enter-INTO a paddy are Infantry, Cavalry, Cycle Riders and fully tracked vehicles. Such Infantry may not be riding bicycles but may be "leading" horses. In addition to the possible cost for crossing a bank hexside, the IN-hex COT of a paddy is dependent on whether the interior is Drained, Irrigated or In-Season: if Drained, normal Open Ground MF/MP costs apply; if Irrigated, the entering unit must expend *twice* the cost of entering Open Ground *mud*; if In-Season, the unit must expend grain MF/MP.

BANK DG Haz. Move. ◊ Inf/Horse/Cycle only Area Fire CC: +1/−1

8.21 *BANKS:* A Bank counter does not create a new Location or change stacking limits. The only units that may cross a bank hexside are those allowed to enter INTO a paddy (8.2) [EXC: bicyclists may cross a bank hexside *if* they are entering either onto a Bank counter or a road]. The only units that may set-up/enter/remain above a Bank counter (thereby avoiding the interior of that paddy) are Infantry (even if riding-bicycles/"leading"-horses, but *not* if Manhandling a Gun/boat), Cavalry, and Cycle Riders. Unless otherwise prohibited (see 8.2 and 8.211-.2112), such units may move (/rout/advance/Withdraw-from-CC if Infantry) in any (combination) of the following ways:

8.2101 If the unit is currently IN a paddy or in a non-paddy hex, it may enter directly onto a Bank counter in an adjacent paddy hex *provided* it crosses a bank hexside as it enters that hex. The normal cost for this is

one MF (or three MP for a cycle) to cross that bank hexside plus one MF (or three MP) to enter onto the Bank counter. Mud MF/MP can also apply if EC are Mud; see 8.5.

8.2102 If the unit is currently IN a paddy or in a non-paddy hex, it may enter directly INTO an adjacent paddy hex. The normal cost for this is one MF/MP [EXC: three MP for a cycle] if crossing a bank hexside plus the IN-hex COT (8.2) of that hex. Mud MF/MP can apply; see 8.5.

8.2103 If the unit is currently IN a paddy, it may directly enter an adjacent *non-paddy* hex. The normal cost for this is one MF/MP [EXC: three MP for a cycle] to cross that bank hexside plus the COT of the non-paddy hex. Mud MF/MP can also apply if EC are Mud.

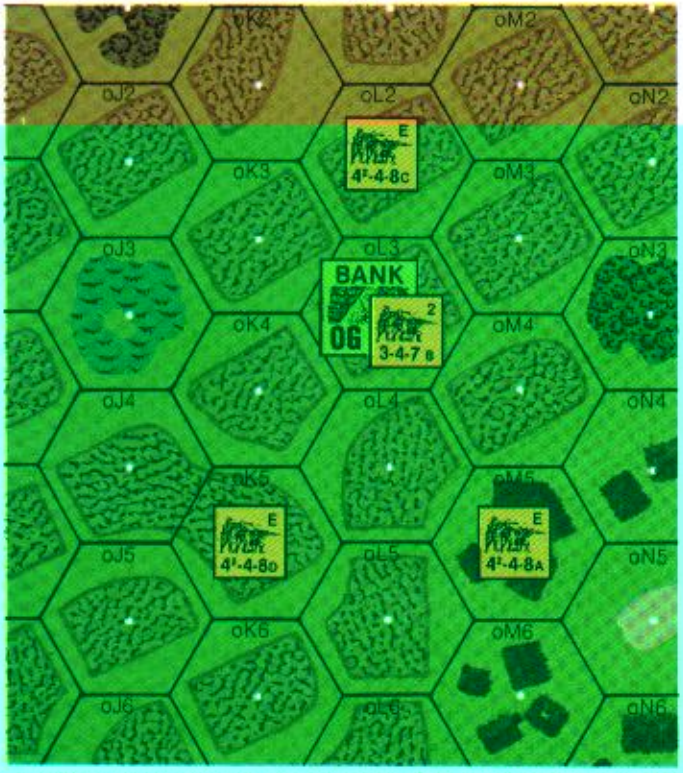
8.2104 If the unit is currently IN a paddy, it may enter directly onto a Bank counter in that same hex. The normal cost for this is one MF (or three MP for a cycle). Mud MF/MP never apply (E3.64).

8.2105 If the unit is currently on a Bank counter, it may enter directly onto a Bank counter in an adjacent paddy hex *provided* it crosses a bank hexside as it enters that hex. The normal cost for this is one MF (or three MP for a cycle). Mud MF/MP can also apply if EC are Mud; see 8.5.

8.2106 If the unit is currently on a Bank counter, it may enter directly INTO an adjacent paddy hex *provided* it crosses a bank hexside as it enters that hex. The normal cost for this is one MF (or three MP for a cycle) to cross that bank hexside plus the IN-hex COT (8.2) of that hex. Mud MF/MP can apply; see 8.5.

8.2107 If the unit is currently on a Bank counter, it may directly enter an adjacent *non-paddy* hex. The normal cost for this is one MF (or three MP for a cycle) to cross that bank hexside plus the COT of the non-paddy hex. Mud MF/MP can also apply if EC are Mud.

8.2108 If the unit is currently on a Bank counter, it may enter directly INTO that same hex. The normal cost for this is the IN-hex COT (8.2) of that hex. Mud MF/MP never apply (E3.64).



EX: Squad A wishes to enter INTO oM4 and oM3. If the paddies are Drained, as per 8.2102 it will expend two MF (1 [cross bank hexside] +1 [enter INTO Drained paddy]=2) to enter each hex. If the paddies are Irrigated, each hex will cost four MF (1 [cross bank hexside] + [1½ [Open Ground mud] ×2 [enter INTO Irrigated paddy]] =4). If the paddies are In-Season, each hex will cost 2½ MF (1 [cross bank hexside] +1½ [enter INTO In-Season paddy {grain}]=2½).

If squad A wished instead to move/rout *along the banks* of oM4 and oM3, as per 8.2101 its cost to enter onto a Bank counter in oM4 would be two MF (1 [cross bank hexside] +1 [enter onto Bank counter]=2), and its cost to then enter onto a Bank counter in oM3 would be one MF (8.2105) regardless of whether the paddies are Drained, Irrigated or In-Season. As it entered each hex it would be placed on a Bank counter.

EX: If the paddies are In-Season and squad B wishes to enter INTO oM3, it can do so in any of three ways: by entering directly INTO oM3 from above the oL3 Bank counter (8.2106), at a cost of 2½ MF (1 [cross bank hexside] +1½ [enter INTO In-Season paddy]=2½); by entering onto the banks of oM3 (8.2105) and then going INTO that hex (8.2108), at a cost of 2½ MF (1 [enter onto Bank counter] +1½ [enter INTO In-Season paddy]=2½); or by entering first INTO oL3 (8.2108) and then INTO oM3 (8.2102), at a cost of four MF (1½ [enter INTO In-Season paddy] +1 [cross bank hexside] +1½ [enter INTO In-Season paddy]=4).

EX: Squad C must expend at least two MF to enter onto the oL3 Bank counter, but can do so in any of three ways: as per 8.2101 (1 [cross bank hexside] +1 [enter onto Bank counter]=2 MF); as per 8.2104 and 8.2105 (1 [enter onto Bank counter in oL2] +1 [enter onto Bank counter in oM3]=2 MF); or as per 8.2102 and 8.2104, which would cost it ≥ three MF (one MF to cross the bank hexside INTO oL3, plus the applicable IN-hex COT of oL3, plus one to enter onto the Bank counter).

EX: Since hexside oJ4-oK5 is not a bank hexside, as per 8.2102 squad D may enter directly INTO oJ4 at a cost of one MF if the paddies are Drained, three MF if they are Irrigated, or 1½ MF if they are In-Season. If squad D instead wished to enter onto the banks in oJ4, it would first have to enter INTO that hex (8.2102) and then, in a separate expenditure, pay one MF to go onto a Bank counter (8.2104). If squad D were Riding a cycle and wished to enter onto the banks in Drained paddy hex oJ4, it would first have to expend three MP to enter INTO that hex and then separately spend three more MP to go onto a Bank counter.

8.211 *RESTRICTIONS:* A unit above a Bank counter may not attempt to Recover/Scrounge anything IN the paddy, nor may it participate in Transfer, Set a DC, Guard a prisoner IN the paddy, or voluntarily become TI (thus prohibiting it from conducting any activity that requires TI status; e.g., Entrenching, Clearance, Searching, [Un]Packing [10.3]). CC Withdrawal *onto* a Bank counter is NA.

8.2111 *INFANTRY:* Each Infantry unit above a Bank counter is subject to Hazardous Movement penalties (and thus cannot gain "?") the entire time it is above that counter; should the unit also be engaged in another Hazardous Movement activity (e.g., being in Column; E11.52), these penalties are *not* cumulative with each other. An Infantry unit above a Bank counter is considered to enter INTO its hex *only* (and does so immediately) when it expends the applicable IN-hex COT to do so (including during the RtPh/APh) or when it becomes broken or pinned, enters into Melee or its Column Disbands. If thusly forced INTO its hex by becoming pinned or broken during its MPh, the unit is assumed to expend the COT for such entry even if exceeding its remaining MF (this does not force placement of a CX counter), is no longer subject to Hazardous Movement, and unless pinned is subject to the −1 FFNAM DRM until its MPh ends. Low-Crawl *onto* a Bank counter is NA. Aside from normal APh restrictions, Infantry [EXC: see 8.22] may freely enter-onto/exit-off Bank counters during the APh.

EX: See the 8.2108 illustration, and assume the paddies are Irrigated. If squad B had already expended two MF (even if using Assault Movement) and then been pinned or broken by Defensive First Fire in its present position, it would have immediately entered INTO oL3 at a cost of three more MF (thus determining how many more times it could be Defensive First Fired on) but would not become CX.

8.2112 *CAVALRY/CYCLES:* Cavalry may Gallop/Charge neither onto nor off of a Bank counter. Personnel may mount a horse/cycle that is above a Bank counter only from above that Bank counter, and may disembark from such a horse/cycle only onto the Bank counter it is above [EXC: they Bail Out directly INTO the hex, and each surviving cycle (see A13.51 for a horse) is placed IN it as well (if that paddy is Irrigated, that *cycle* would be eliminated instead)]. Likewise, Personnel mounting (or disembarking from) transport that is IN a paddy may do so only from IN (or must disembark INTO) that same hex.

EX: Unless Bailing Out, Cavalry on a Bank counter can dismount only onto its Bank counter, and expends the normal one MF to do so. Infantry IN any type of paddy can mount a horse or cycle on a Bank counter in that hex only by first expending one MF to enter onto that Bank counter and then expending the normal one MF to mount. If Infantry on a Bank counter wish to mount transport IN their In-Season paddy hex, they must expend 2½ MF to do so (1½ [enter INTO in-season paddy] + 1 [load]=2½).

8.212 *ATTACKS:* Infantry above a Bank counter are subject to Hazardous Movement (8.2111), and may use only Inherent FP/SW, LMG, LATW [EXC: 20mm ATR], FT and/or Thrown DC. Each non-CC attack conducted by a unit above a Bank counter is treated as Area Fire [EXC: Thrown DC], cumulative with other such penalties. A unit above a Bank counter receives a +2 drm to its Ambush dr (A11.4), a +1 DRM to its CC attack (limit of +1 per attack) and a −1 DRM to each CC attack made against it. An unbroken Japanese Infantry unit above a Bank counter may detonate its DC as per 1.424, but vs its target(s, if any) *beneath* that Bank counter the attack is resolved as a Thrown DC.

8.2121 *UNDERBELLY HITS:* An AFV is subject to Underbelly Hits as it crosses an unbreached (8.8) bank hexside.

8.2122 *MINES/RESIDUAL-FP:* Mines/Residual-FP in a paddy hex attack in the normal manner regardless of whether or not their target is IN the paddy.

8.213 *SW/GUN:* An unpossessed SW above a Bank counter is placed IN that paddy (eliminating it if that paddy is Irrigated; 8.12) unless it is being Animal-Packed (10.1). A Gun above a Bank counter (note that this can occur only if it is being Animal-Packed) remains there if it becomes unpossessed.

8.22 *AERIAL: All* parachutes and gliders landing in paddy hexes land directly IN them. A ⅜" parachute landing IN an Irrigated paddy must immediately take a NMC as per E9.42. Paratroops appearing onboard as per E9.6 may not enter onto a Bank counter during that same APh. A glider landing IN any paddy receives the +1 "hedge" Crash drm if it lands across a bank hexside as per E8.231.

8.3 *TEM:* A bank hexside is treated as a hedge for TEM purposes [EXC: in addition to the effects of Indirect Fire (B9.34), its +1 TEM is reduced to zero if the firer is at *any* elevation > the target's, if the target is *above* a Bank counter, and/or if the target unit is *not* Infantry (though Direct Fire vs an "empty" hex across a bank hexside would not itself negate bank-hexside TEM)]. A bank hexside cannot confer HD/Wall-Advantage status. The interior of a paddy hex is Open Ground (thus allowing FFMO/Interdiction) *if* its bank-hexside TEM is zero [EXC: if In-Season, its interior is grain; 8.13]. A Bank counter is Open Ground even if the paddies are In-Season. See also 8.5 and 8.7.

EX: See the 8.2108 illustration and assume the paddies are Drained. None of the squads shown can claim a bank-hexside TEM vs *Indirect* Fire (B9.34). However, if squad A were an enemy unit and attacked squads B, C and D with other than a mortar/FT/Set-DC, squads C and D could claim the bank-hexside +1 TEM (and thus could not be subjected to FFMO/Interdiction) but squad B could claim no positive TEM and would be considered in Open Ground. If squad A were at > level 0, then even squads C and D would be considered in Open Ground vs its attacks. If the paddies were In-Season, regardless of squad A's elevation its attacks would treat squads C and D as being in grain but would still treat B as being in Open Ground. If squad D were to use its Inherent FP vs squad A, the latter could claim a bank-hexside TEM if it were not in a building. Squad C could claim a bank-hexside TEM vs squad B's Small Arms attack, but squad B could not claim it (and would be considered in Open Ground) vs such an attack by squad C. Vs a FB strafing hexrow oL, neither squad B nor squad C could claim bank-hexside TEM.

8.31 *AFV/WRECK:* A unit above a Bank counter cannot claim the TEM of an AFV/wreck IN that hex.

8.4 *LOS:* Entrenched Infantry treat all bank hexsides as hedges for LOS purposes (B9.21) [EXC: Wall Advantage rules are NA; 8.3]. Reciprocity applies. LOS to/from a unit on a Bank counter is drawn to/from that paddy hex's center dot. A Bank counter does not affect LOS to/from/through its hex. An AFV/wreck IN a paddy retains its normal Hindrance effects. The Hindrance effect of an In-Season paddy differs from that of grain in that the normal +1 per-hex Hindrance (A6.7) is *halved (FRD)* and the grain is considered Inherent Terrain (B.6) [EXC: a Bank counter in that hex remains Open Ground (8.3); a Sighting TC (E7.3) vs a vehicle/Gun in an In-Season paddy never receives the +1 DRM for a target in grain].

EX: See the 8.2108 illustration and assume the paddies are In-Season. Squad A's LOS to squad C incurs a +1 Hindrance (+2 [Hindrance effect of hexes oM4 and oL3] ÷2 = +1), as does its LOS to oK2 (+3 [Hindrance effect of hexsides oL4-oM4 and oK3-oL2, and of hex oL3] ÷2 = +1½ FRD = +1). Squad A's LOS to oJ1 incurs a +2 Hindrance (+4 [Hindrance effect of hexes oL4, oL3, oK3 and oK2] ÷2 = +2), but its LOS to squads B and D is unhindered (+1 [Hindrance effect of hexside oL4-oM4 or oL4-oL5 respectively] ÷2 = +½ FRD = 0). The LOS from squad B to oJ1 (and vice-versa) receives a +1 Hindrance (+2 [Hindrance effect of hexes oK2 and oK3] ÷2 = +1). If squad D were entrenched it would have no LOS to the other squads.

8.5 *MUD:* Mud can exist in/IN paddy hexes in two ways: they may be Irrigated (8.12), and/or EC may be Mud. Irrigated paddies are mud only IN those hexes, unless EC are Mud. Whenever EC are Mud, all mud rules (E3.6-.65) apply in (as well as IN) all paddy hexes even if they are In-Season (note that the extra MF/MP cost of mud is already included in the IN-hex COT of Irrigated paddies as given in 8.2). The extra MF/MP cost of mud (E3.64) applies to entry onto a Bank counter *only* if EC are Mud *and* the unit is changing hexes. Whenever mud is in effect for *any* reason in/IN paddy hexes, its extra +1 TEM applies in the normal manner (E3.62) in and IN those hexes, cumulative with all otherwise-applicable TEM.

EX: See the 8.2108 illustration, and assume the paddies are Drained and EC are Mud. Squad B begins its MPh by declaring Double Time and moving INTO oL3 at a cost of one MF (the extra ½ MF for EC mud does not apply; 8.2108). Next it moves INTO oM3 at a cost of 2½ MF (1 [cross bank hexside] +½ [EC mud] +1 [enter INTO Drained paddy] = 2½). It then enters onto a Bank counter in oM3 at a cost of one MF (again the extra ½ MF for EC mud does not apply), and lastly it moves onto a Bank counter in oM2 at a cost of 1½ MF (1 [enter onto Bank counter] +½ [EC mud] = 1½).

If squad B had instead begun its MPh by exiting the Bank counter directly INTO oM3 and from there moving directly onto a Bank counter in oM2, it would have expended 2½ MF to enter each hex: (1 [cross bank hexside] +½ [EC mud] +1 [enter INTO Drained paddy] = 2½) for oM3; and (1 [cross bank hexside] +½ [EC mud] +1 [enter onto Bank counter] = 2½) for oM2.

If squad B had never left the banks as it moved to oM3 and oM2, it would have expended 1½ MF (1 [enter onto Bank counter] +½ [EC mud] = 1½) in each hex.

EX: See the 8.2108 illustratson, and assume that mud is in effect in/IN the paddies because they are Irrigated/EC are Mud. If squads B and C are attacked by Indirect Fire HE, *both* will receive the +1 TEM for mud (but neither will receive bank-hexside TEM; 8.3). However, if squad A were an enemy unit and attacked them with Direct-Fire ordnance HE, squad B could claim only the +1 mud TEM while squad C's TEM would be +2 (+1 for mud and +1 for bank-hexside TEM). Note that if the paddies are Irrigated those HE attacks will also be halved on the IFT (8.12).

8.6 *FIRES:* No Terrain Flame/Blaze can occur in a Drained/Irrigated paddy hex. In-season paddies are treated as grain for Fire purposes; however, Fire Spreading from one In-Season paddy to another does not qualify for the −2 "directly attached" DRM (B25.62) if their common hexside is a bank hexside. Burning Wrecks occur IN paddy hexes in the normal manner.

8.7 *FORTIFICATIONS:* Except as otherwise prohibited, all types of Fortifications may be set up IN Drained/In-Season paddy hexes. No Fortification may be set up above a Bank counter, and none other than minefields/wire *or* panjis (9.) may be set up in Irrigated paddy hexes. Mines are considered to occupy both the interior and banks of a paddy hex (see also 8.2122). The use of a Bank counter is NA in a paddy hex that contains any Wire or Panji counter. Each unit/SW/Gun above a Wire or Panji counter in a paddy hex is considered to be IN that hex; however, Infantry above that Wire or Panji counter can claim neither bank-hexside TEM nor the paddy's non-Open Ground status, and are subject to all the provisions of 8.212 (only) just as if they were above a Bank counter [EXC: Thrown DC use is NA]; these provisions apply together/cumulative with those for being above that Wire or Panji counter.

8.71 *TRENCHES:* Infantry ignore the cost of crossing a bank hexside when entering one Trench counter directly from another. The provisions of B27.4-.41 apply unchanged IN paddies. See also 8.4.

8.72 *SHELLHOLES:* Shellholes can occur IN Drained/In-Season (only) paddy hexes, in which case the terrain characteristics IN those hexes will change accordingly (the banks in those hexes would be unaffected).

EX: Shellholes IN an In-Season paddy allow Infantry to enter both that hex's interior and the shellholes simultaneously, at a cost of two MF plus any cost to cross a bank. In addition, the grain in that paddy hex is considered non-existent for all purposes.

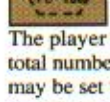
8.73 *SUBTERRANEAN:* No type of subterranean passage may exist in an Irrigated paddy hex.



8.8 *BREACH:* A Mobile dozer may breach a bank hexside of a Drained/In-Season (only) paddy, just as if it were breaching a bocage hexside (B9.541) [EXC: it expends only ¼ (FRU)—not all—of its printed MP allotment to do so]. Thereafter, crossing that hexside is treated as per B9.541 *unless* entering-onto/exiting-off a Bank counter. All unit types may enter INTO a Drained/In-Season paddy via a breached or non-bank hexside.

EX: See the 8.2108 illustration, and assume that the paddies are Drained and hexside oL2-oL3 is breached. Squad C may enter INTO oL3 by expending just the one MF for the IN-hex COT of that hex; i.e., it does not pay a MF to cross that bank hexside. However, if it instead wished to enter directly onto the oL3 Bank counter from IN oL2, it would still have to expend the normal two-MF cost to do so (8.2101). The breach would have no effect on squad B's entry into/INTO oL2, since in all cases squad B would be entering-onto/exiting-off a Bank counter. If hexside oL4-oM5 were breached, squad A would expend one MF to enter directly INTO oL4. If hexsides oL4-oM5 and oL4-oK5 were breached, a truck Bypassing oM5 at vertex oM5-oL4-oM4 could enter directly INTO oL4, then INTO oK5, then INTO oJ4, at its normal Open Ground expenditure of four MP per hex (8.2).

9. PANJIS



9.1 Panjis[20] are Fortification counters that can be set up (to a maximum of one per hex) only prior to the start of a scenario that uses PTO Terrain (G.1). Panjis are listed in the scenario OB by the total number of *Covered hexsides* (9.3) allotted. The player may set up as many Panji counters as he wishes, provided the total number of their Covered hexsides does not exceed the OB limit. Panjis may be set up in any non-subterranean terrain *other than* building, rubble, marsh, swamp, paved road/runway, crag or Water Obstacle, nor may they be set up in any hex that contains wire/mines or a Roadblock counter (whether onboard or hidden). Panjis *may* be set up in a bridge Location, but only the road hexsides of that Location may be Covered hexsides of that Panji counter, and a unit above that Panji counter cannot claim bridge TEM. Panjis cannot be set up at Crest level in a Depression; i.e., a Crest unit is not considered to be *above* a Panji counter even though it may be placed physically upon it. Panjis cannot be moved, and do not affect stacking limits. A Panji counter does *not* create a new Location in its hex; the term "panji Location" used herein simply refers to a Location that contains a Panji counter.

9.11 *HIP:* When setting up a Panji counter using HIP, record its ID letter and the hexside that corresponds to the "top" of the counter, with the first coordinate listed being the setup hex. When a Panji counter loses HIP status, all of its Covered hexsides are revealed. See also 9.4.

EX: If the Panji counters in the 9.3 illustration had originally been hidden, their owner would have recorded their setup as "Panji A: 37EE7-EE8" and "Panji C: 37DD7-DD8".

9.12 *UNIT SETUP:* Neither a non-vehicular Gun, nor any unit *not* allowed to move from above to below a Panji counter (9.5), may set up above a Panji counter.

9.121 *TRIP FLARES:* A trip flare (G.8) in a panji Location that contains *no* jungle/bamboo can be set off only by qualifying entry/Search across a Covered hexside of that Panji counter or by a qualifying MF/MP expenditure made while the unit/stack enters/remains *above* that Panji counter.

9.13 *DYO:* The BPV of each Panji counter equals two points per Covered hexside on that counter.

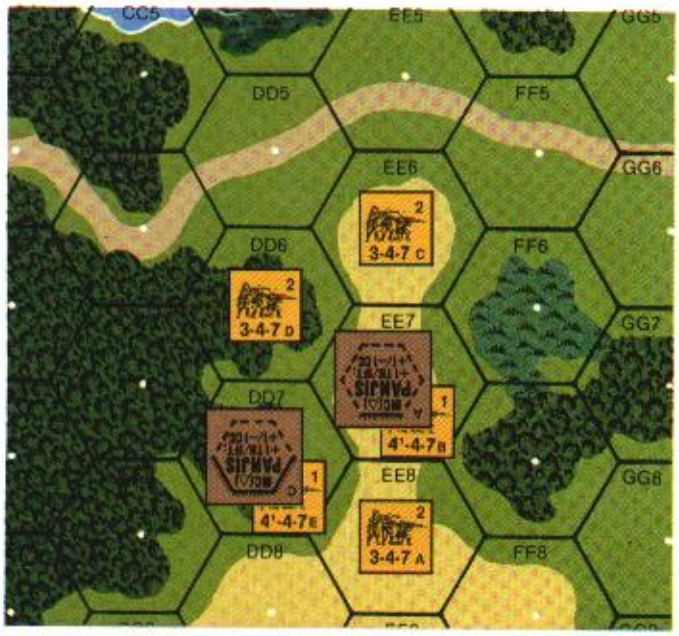
9.2 *LOS & TEM:* A Panji counter is neither an obstacle nor a Hindrance to LOS. It has no TEM and does not alter the TEM of other terrain in its hex [EXC: an AFV/wreck above a Panji counter provides no TEM, and thus if in Open Ground does not change its hex to non-Open Ground].

9.21 *ATTACKS:* Infantry above a Panji counter may use only Inherent FP/SW, LMG, LATW [EXC: 20mm ATR] and/or FT, and may not Interdict. An Infantry/Cavalry unit above a Panji counter must add a +1 DRM to each attack (including CC) it makes or participates in (limit of +1 per attack), receives a +1 Ambush drm (A11.4), and each CC attack vs it receives a −1 DRM. See also 9.52.



9.211 *DC:* Infantry above a Panji counter may not Place, Throw or Set a DC, nor may Infantry beneath a Panji counter Place a DC across a Covered hexside of that Panji counter. An unbroken Japanese Infantry unit above a Panji counter may detonate its DC as per 1.424, but vs its target(s, if any) *beneath* that Panji counter the attack is resolved as a Thrown DC. A DC Placed into a panji Location across one of that Panji counter's Covered hexsides attacks its target(s, if any) *beneath* that Panji counter as if it were a Thrown DC. See also 9.72.

9.3 *COVERED HEXSIDE:* Each Panji counter creates one to six Covered hexsides in its hex. The Covered hexsides of Panji counters are indicated in the same way that HD counters indicate HD hexsides. Covered hexsides can cause Infantry to take Panji MC (9.31) and can eliminate/immobilize other types of units as well.



EX: Hexsides 37DD7-CC8, DD7-DD8 and DD7-EE8 are all Covered hexsides of Panji counter C. Only hexside EE7-EE8 is a Covered hexside of Panji counter A.

9.31 *PANJI MC:* A Panji MC is a NMC (△); however, Heat of Battle does not apply. Moreover, if a Panji MC DR is *any* Original Doubles < 12, the Infantry unit taking it also suffers Casualty Reduction, even if it does not break; an Original 12 DR also causes a Casualty MC (A10.31). In all cases, if the Infantry unit fails the Panji MC it first suffers Replacement (if applicable), then undergoes Casualty Reduction (or the Casualty MC) as/if applicable, then suffers the Panji MC break result. A Final DR equal to the unit's current morale pins the unit unless it is immune to pin results.

9.4 *ENTRY:* A Panji counter does not alter the MF/MP entry cost of its Location, except as it prohibits both Bypass (in certain cases; 9.46) and the use of a Bank counter (8.7). A non-Dummy (determined as per A12.11) ground unit/stack that enters a panji Location is placed *above* that Panji counter if the hexside it enters *across* (i.e., the hexside common to both the hex being entered and the one being exited) is a *Covered* hexside of that Panji counter [EXC: if entering within a trench or subterranean passage; 9.45]. For entry across one of its non-Covered hexsides see 9.45-.46. A unit entering onto a Panji counter can lose its concealment (9.53) and cannot use road bonus (9.54). If a hidden Panji counter's Location is entered across one of its Covered hexsides by a unit of the side that owns the Panji counter, 9.41-.44 apply unchanged but the Panji counter is revealed only if a Good Order enemy ground unit has the applicable necessary LOS to it.

EX: See the 9.3 illustration. Squad A must expend two MF to enter EE7 (or would expend three MF if hexside EE8-EE7 contained a wall or hedge), and is placed above Panji counter A regardless of phase.

9.41 *INFANTRY:* Each Infantry unit that enters a panji Location across one of that Panji counter's Covered hexsides must *immediately* (before Defensive-First-Fire/Interdiction/minefield attacks are conducted vs it) take a Panji MC *unless* it is using Assault Movement, Armored Assault (D9.31) or Low Crawl, is making a normal advance (i.e., not vs Difficult Terrain), is forced back out of that Location as per A12.15, is required to take a PTC as per 9.43, or is entering while in a trench or subterranean passage (9.45). After fully resolving all resulting Panji MC (if any), Defensive-First-Fire/Interdiction is conducted vs the unit/stack in the normal manner. *After* that, if it is still able and otherwise allowed to, it may [EXC: during the APh] expend an extra MF and thereby be placed under the Panji counter; see 9.5. A broken unit need not rout across a Covered hexside if doing so would put it above that Panji counter, provided it has an alternate legal rout path.

9.411 *MANHANDLING:* 9.41 applies to an Infantry unit that Manhandles a Gun/motorcycle/boat into a panji Location across one of that Panji counter's Covered hexsides. However, the item being Manhandled is *immediately* (as per 9.41) eliminated upon entering unless the unit is forced back out of that Location as per A12.15.

9.42 *VEHICLE:* A vehicle (including Wagon) that enters a panji Location across one of that Panji counter's Covered hexsides is *immediately* (as per 9.41) immobilized unless it is a full-tracked AFV/dozer [EXC: a Ridden motorcycle entering thusly is immediately eliminated, and its Rider(s) must Bail Out; 9.423 then applies]. If the full-tracked AFV/dozer is still Mobile after all Defensive First Fire vs it has been resolved, it may expend an extra MP to move beneath the Panji counter (9.5), or may Stop/fire, etc., in the normal manner [EXC: VCA change is NA; 9.52].

9.421 *TOWING:* A Gun (but not a trailer) being towed is eliminated when its towing vehicle is immobilized by panjis.

9.422 *HORSE/BICYCLE:* A horse/bicycle that is *ridden* into a panji Location across one of that Panji counter's Covered hexsides is *immediately* (as per 9.41) eliminated [EXC: such a horse that expended *eleven* MF (inclusive of that Location's COT) to enter is not eliminated, unless it is Galloping/Charging]. If it is eliminated, its Rider(s) must Bail Out and 9.423 then applies. Horses being "led" (A13.7), and bicycles being portaged (D15.82), are not directly affected. Cavalry may Gallop/Charge neither onto nor off of a non-hidden Panji counter.

9.423 *PRC:* PRC disembarking (in any fashion) from transport that is *above* a Panji counter do so *onto* the Panji counter. After resolving their Bailing Out NMC (if any), they are then treated as entering Infantry (9.41) even if they disembarked as a stack.

9.43 *STACK:* Should a non-Aerial stack that *moves/advances* across a road/path/Depression/TB hexside be required to take a Panji MC therein, the ATTACKER randomly selects *one* non-prisoner unit in that stack to take it. After fully resolving all resulting Panji MC (but prior to Defensive First Fire if it is the MPh), all other units in that stack not exempt from PTC must take a normal PTC which leadership can modify. [EXC to all: If the stack is berserk or conducting a Human-Wave/Banzai-Charge, 9.41—not 9.43—applies.] 9.41 also applies to a routing stack.

9.44 *COLUMN:* Should a non-Dummy (determined as per A12.11) Column unit that enters a *hidden*-panji Location be required to take a Panji MC therein, that Column automatically Disbands after all Defensive First Fire ensuing from that Impulse has been resolved. The same would apply if the panjis were not hidden, except in this case the Column could *opt* to Disband as per E11.53 (unless forced back to its previous Location as per A12.15, in which case it would automatically Disband as per E11.53).

9.45 *NON-COVERED HEXSIDE:* A ground unit's non-Bypass entry into a panji Location is not affected by that Panji counter if the unit is crossing one of that Panji counter's non-Covered hexsides, or is crossing one of its Covered hexsides while using a trench or subterranean passage. Each unit entering thusly is placed directly beneath the Panji counter.

EX: See the 9.3 illustration. If squad D enters EE7, or DD7 while not attempting Bypass, it is placed beneath that hex's Panji counter since in both cases the hexside it crosses is non-Covered. Likewise, any unit entering EE7 from DD7 (or vice-versa) is placed beneath the Panji counter in its new hex. If squads A and B were both beneath Trench counters and moved within those trenches to each other's hex, no Panji MC/penalty would result (and squad A would enter EE7 directly to beneath Panji counter A).

9.46 *BYPASS:* Bypassing *in* a panji Location is NA along a hexside that is/touches a Covered hexside of *that* Panji counter. When a unit attempts such entry (e.g., if the Panji counter is hidden), it must still expend whatever MF/MP such Bypass would have cost if there were no Panji counter in that hex but does so in its current position (like a vehicle lacking sufficient clearance to Bypass; D2.3). If that unit is a vehicle it must then also expend a Stop MP as per D2.3. Bypass blocked in this manner does not itself end the unit's MPh. A hidden Panji counter that blocks a Bypass move must be revealed immediately. Unless otherwise prohibited, Bypass in a panji Location is allowed along a hexside that neither is, nor touches, a Covered hexside of that Panji counter; and each unit thusly entering is placed directly beneath the Panji counter.

EX: See the 9.3 illustration and assume that light jungle is in effect. A unit may Bypass in DD7 only along hexside DD7-DD6. Hexsides DD7-CC8, DD7-DD8 and DD7-EE8 cannot be Bypassed because they are Covered hexsides; and hexside DD7-EE7, despite being a non-Covered hexside, cannot be Bypassed because it touches a Covered hexside (DD7-EE8) of Panji counter C. If Panji counter C were hidden and squad B attempted to Bypass along hexside DD7-EE8, it would reveal that Panji counter but would be blocked from actually entering DD7 (thus making it immune to a TPBF/Snap-Shot from, or any mines in, DD7), and would have to expend (while still beneath Panji counter A) the one-MF cost of that attempted Bypass. The same would be true if squad C exited EE6 by Bypassing along hexside DD6-EE7 and then attempted to continue Bypassing along hexside DD7-EE7; however, squad C would have to expend the extra MF for the blocked Bypass attempt while in Bypass at vertex DD6-EE7-DD7. Squad B may Bypass DD7 along hexside DD7-DD6, and upon entering DD7 is placed beneath Panji counter C. Alternatively, squad B could Bypass along hexside FF7-EE8 because that hexside, even though it touches a Covered hexside of the EE7 panji Location, is not *in* that panji Location.

9.47 *AERIAL:* After a ⅜" parachute has landed in a panji Location and its Landing MC/TC (if any; E9.42) has been resolved, its owner must make one dr (△) for it (or one for each panji Location that contains its Personnel revealed by "downwind scatter"; E9.42). There is a +1 drm if the landing unit is broken, and a +drm equal to half (FRU) the number of Covered hexsides on that Panji counter. (If hidden, the Panji counter must be revealed at this time.) These drm are applied individually to each Personnel unit revealed by "downwind scatter". If the Final dr is ≤ 6, the parachute (or each Personnel unit to which that Final result applies) is placed beneath the Panji counter; otherwise it is placed above the Panji counter and must immediately take a Panji MC (just one such MC for *all* revealed units in the hex) using a Morale Level of 7. A ½" parachute landing in a panji Location follows the same procedure to determine its placement therein, but automatically receives both +drm.

A glider landing in a panji Location receives a +1 drm to its Crash dr (E8.23) if it lands across (as determined by its Avenue of Approach) a Covered hexside of that Panji counter. If it survives it is placed beneath the Panji counter, and its occupants will disembark beneath the Panji counter as per 9.51.

9.48 *SEARCHING:* Searching an adjacent panji Location can cause casualties as per A12.154 if a Covered hexside is common to that Location and the Searcher's Location. A hidden Panji counter is revealed when its Location is Searched. A unit above a Panji counter may not Search.

EX: See the 9.3 illustration. If squad A Searches EE7/DD7 it can suffer Casualty Reduction as per A12.154, due to the Search being conducted "across" a Covered hexside. This would also be true for squad B Searching EE8, as well as for squad E Searching CC8/DD8/EE8.

9.5 *ABOVE/BENEATH:* Only Mobile full-tracked AFV/dozers, Infantry [EXC: if Manhandling], horses being "led" (A13.7), and Cavalry may change position from beneath a Panji counter to above it or vice-versa. The cost to do so is one MF/MP (even if using Reverse movement), expended separately from other MF/MP costs.[21] No Panji MC or other panji-caused penalty ensues from this action, which is carried out after resolving all Defensive-First-Fire/Interdiction allowed by the unit's previous MF/MP expenditure. Infantry may not advance/Withdraw-from-CC *off* of a Panji counter. An ATTACKER unit entering a panji Location to conduct any type of OVR may make that attack before or after thusly changing position in that hex. See the 9.6 example.

9.51 *PRC:* An Infantry unit in a panji Location can become PRC only if both it and its transport are either above or beneath that Panji counter, but the panjis will not otherwise affect that action. PRC on transport that is beneath a Panji counter disembark to beneath it. See also 9.423.

9.52 *SW/GUN/VEHICLE:* An item that becomes unpossessed while above a Panji counter is left above it. Infantry above a Panji counter may not Recover, Transfer, (un)dismantle, repair or voluntarily malfunction/disable a SW/Gun. A vehicle above a Panji counter may not change its VCA and cannot be Scrounged. A non-vehicular Gun above a Panji counter cannot be fired, Pushed, (un)hooked, (un)limbered, (un)loaded (unless currently dismantled), or (Un)Packed (10.3)— nor may it be (un)dismantled, repaired or voluntarily malfunctioned/disabled unless in a vehicle.

9.53 *CONCEALMENT:* Each unit above a Panji counter is considered to be continuously engaging in a concealment-loss activity as per A12.141, and may not make a concealment dr (A12.122) if in the LOS of an unbroken enemy ground unit.

9.54 *ROAD BONUS:* An Infantry unit/stack cannot claim road bonus (B3.4) during a MPh in which it crosses *any* Covered hexside. For this purpose assume road bonus to be the last MF the unit/stack can expend in its MPh.

9.55 *FORTIFICATIONS:* All other Fortifications (and tunnel entrances/exits) in a panji Location are considered to be beneath that Panji counter, and can be entered only from (or exited only to) beneath that Panji counter [EXC: entering/exiting the hex via a trench; entering the hex via a subterranean passage]. Infantry above a Panji counter may not make/direct an Entrenching Attempt. See also 9.45 and 9.71.

EX: See the 9.3 illustration. A Foxhole counter in EE7 would be placed beneath the Panji counter, and a unit above that Panji counter would have to expend a MF to go beneath it before expending another to enter that foxhole. If the unit subsequently exited the foxhole it would do so to beneath that Panji counter.

9.56 *PRISONERS:* Infantry above a Panji counter may not Guard an Unarmed unit that lies beneath that Panji counter (or vice-versa).

9.6 *EXIT:* A unit above a Panji counter may not directly exit that hex. It must first move/rout beneath that Panji counter as per 9.5, and then it may exit as if no Panji counter were present therein [EXC: only Mobile full-tracked AFV/dozers, Infantry not Manhandling, horses being "led" (A13.7), and Cavalry may thusly exit across one of that Panji counter's Covered hexsides, expending one MF/MP to cross it unless using a trench or subterranean passage]. See also 9.54.

EX: See the 9.3 illustration. If squad B wishes to directly enter EE8 it must expend one MF to cross Covered hexside EE7-EE8 plus the COT of EE8. A tank above Panji counter A would have to expend a MP to go beneath it before exiting that hex (and could not change VCA while above it; 9.52). A truck beneath Panji counter A could not directly enter EE8 since to do so it would first have to cross Covered hexside EE7-EE8—which it cannot do since it is a truck. Note too that none of these units could exit EE7 by Bypassing along hexside DD7-EE8, but they could Bypass along hexside FF7-EE8 (9.46).

EX: See the 9.3 illustration and assume a Terrain Blaze in DD8. Squad A wishes to move to CC8 in a single MPh. It cannot Bypass along hexside DD7-DD8 (9.46), so it begins its MPh by declaring Double Time and entering DD7 (two MF), where it is placed above the Panji counter and takes its Panji MC. Assuming the MC has no effect, it must now move beneath the Panji counter (one MF) before it can cross Covered hexside DD7-CC8 (one MF) to enter CC8 (two MF)—for a total expenditure of six MF.

9.7 *REMOVAL:* Panji removal does not itself adversely affect a unit above that Panji counter. If the Panji counter is completely eliminated, that unit is simply no longer above a Panji counter. Aside from Falling-Rubble/Terrain-Blaze, panjis can be removed only in the following ways:

9.71 *CLEARANCE:* A (predesignated) Covered hexside is changed to a non-Covered hexside upon a successful Clearance DR, using the same principles and procedures as given in B24.7 and B24.73 for Clearing wire. No unit above a Panji counter may attempt, direct or assist in Clearance (including path creation; 2.7).

9.72 *HE/DC:* If shellholes are created in a panji Location, that Panji counter is eliminated. Otherwise, after fully resolving a FFE-Concentration/

ordnance HE attack [EXC: one using HE-Equivalency/the-Vehicle-Target-Type], or a DC attack [EXC: A-T Set DC; 1.6122], vs a Location that contains a Panji counter, ≥ one Covered hexside of that counter becomes a non-Covered hexside *if* the Original (or Final, for a Set/Thrown DC) IFT DR was a KIA. The number of hexsides changed is equal to that KIA #. If Indirect Fire caused the KIA, randomly determine which Covered-hexside(s) will be so affected; otherwise, the attacker chooses the hexside(s) [EXC: a DC Placed into a panji Location across one of that Panji counter's Covered hexsides will change *that* Covered hexside before any other].

9.73 *AFV/DOZER:* During its MPh, a full-tracked AFV/dozer *beneath* a Panji counter may change a Covered hexside (of that Panji counter) within its VCA to a non-Covered hexside, provided it is not Stopped but is using neither Reverse movement nor VBM. Its owner first declares which hexside it will "clear"; it then expends ¼ (FRU) of its printed MP allotment to do so, and then takes any Bog Check required if in a Bog hex. If it remains Mobile after resolving all Defensive First Fire and Bog DR vs it, that hexside is thusly changed. It may then repeat this procedure if otherwise able.



9.731 *BREACH:* A Covered paddy hexside breached by a dozer becomes a non-Covered hexside; see 8.8.

9.74 *BOMBARDMENT:* A Panji counter has a Morale Level of 8 for Bombardment purposes. One randomly determined Covered hexside of the counter becomes a non-Covered hexside for every multiple of one by which its NMC is failed. Otherwise it is treated like wire (C1.822).

10. ANIMAL-PACK

[Note: When used herein, the term "Gun" includes a dm 76-82mm MTR.]

10.1 Animal-Pack rules allow certain types of Guns (listed in 10.2 and 10.61) and SW (10.7) to be *carried* (not towed) by Horse counters that have been specially designated as having that capability. A Gun capable of being thusly carried is termed a *Pack Gun*. A Horse counter designated by a scenario (or by DYO purchase; 10.6) as being capable of carrying a Pack Gun is termed a *Mule*. A Pack Gun being carried by a Mule (i.e., one *on* such a Horse counter) is referred to as an *Animal-Packed* Gun or as *being Animal-Packed*; conversely, a Mule carrying a Pack Gun is said to be *Animal-Packing* it. The overall process of removing a Pack Gun from its Mule and setting it up on the ground is termed *Unpacking*; and the reverse of this process is called *Packing*. A Pack Gun may be Animal-Packed/(Un)Packed any number of times during play, depending on its M# and the status of its crew. A Mule is treated as a Horse counter for all purposes except as stated otherwise. A Mule may *never* carry a Rider (not even that Gun's crew), be voluntarily "deployed" into two "HS" Mules, nor create any type of horse/SMC-Mule.



10.11 *PACK-TI:* Except as stated otherwise, being marked with an Animal-Pack counter (provided in *WEST OF ALAMEIN*) is equivalent to being TI (A4.8) and is referred to as being *Pack-TI*. Animal-Pack counters are *not* removed at the end of the CCPh. The only Personnel unit that may become Pack-TI is a non-PRC, Good Order *crew* counter of the same nationality as the Pack Gun it possesses. Such a crew may become Pack-TI only during RPh Step 1.13B at the start of a *Game* Turn. A Pack-TI crew *may* conduct any type of activity that is normally prohibited by TI status, but if it does—or if it becomes pinned or not in Good Order—it immediately loses its Pack-TI status unless stated otherwise (e.g., see 10.31-.33). A crew is subject to Hazardous Movement penalties while Pack-TI, regardless of phase. Each attack conducted by a Pack-TI crew is modified as Area Fire [EXC: TI DRM apply in CC]. A Pack-TI Pack-Gun/Mule may not be fired, Pushed, moved or advanced. Once Pack-TI, neither a Pack Gun nor a Mule can lose that status until it has completed an (Un)Packing Period (10.3).

10.2 *ANIMAL-PACKING:* Any 76-82mm MTR, as well as any other Gun allowed by an Ordnance Note (see also 10.61), may be Animal-Packed; however, the Gun must be dm/limbered if possible. Only a "squad" (A13.32) Mule counter may Animal-Pack a Gun, and may Animal-Pack only one such Gun at a time. The Gun being Animal-Packed is placed on top of the Mule; while on the Mule it may never be fired, Pushed, hooked up, unlimbered or assembled, and is considered to be possessed by the crew "accompanying" (A13.7) that Mule [EXC: in a panji Location the crew is "accompanying" the Mule only if *both* of those units are above or beneath that Panji counter]. A Gun being Animal-Packed is not considered a portaged SW for MF purposes, nor is it eliminated if its un-"accompanied" Mule is in terrain that calls for the elimination of unpossessed equipment [EXC: if unloaded therein; 10.31]. A non-Mule horse may not Animal-Pack a Gun of any type, nor may a Mule Animal-Pack a non-Pack Gun.

10.21 *STACKING:* A crew possessing an Animal-Packed Gun is considered a squad for stacking purposes (A5.5).

10.3 *(UN)PACKING:* To (Un)Pack a Gun onto/from its Mule, they and the crew must all occupy the same terrain in the same Location (e.g., all of them must be *beneath* any Panji counter in their Location [9.52]; an entrenched crew cannot [Un]Pack a Gun because the Mule cannot occupy the entrenchment). An Animal-Pack counter is placed above the Gun, Mule and crew during Step 1.13B of the *initial* RPh of a Game Turn. All must then remain Pack-TI for a number of *complete* Game Turns called the *(Un)Packing Period*, which is equal to "12 minus that Gun's M#, plus one if not a MTR" [EXC: the minimum (Un)Packing Period may never be < one complete Game Turn]. For Animal-Pack purposes, a complete Game Turn runs from (and includes) the start of the first RPh in that Game Turn through the end of the second CCPh in that Game Turn. If the crew for any reason loses its Pack-TI status prior to the end of the (Un)Packing Period, the Game Turn in which this occurs no longer counts toward the total number needed to complete that Period. When the Gun, Mule and crew have remained Pack-TI for the required number of Game Turns, the (Un)Packing Period has been completed; the Animal-Pack counter is removed as part of Step 1.13B in the next RPh, and normal capabilities return to all involved. In a night scenario the (Un)Packing Period is always twice its normal length.

EX: A British Infantry crew and a 94mm INF Gun on a "squad" Mule occupy the same Open Ground Location at the start of the second Player Turn of Turn 1 in a day scenario. Their owner wishes to begin Unpacking the Gun, but he cannot at this time because it is not the *initial* RPh of the Game Turn. So at the start of Turn 2 in RPh Step 1.13B he places an Animal-Pack counter above the Gun, Mule and crew. Since the Gun's M# is 10, its Unpacking Period will comprise three entire Game Turns (12−10 [M#] +1 [non-MTR]=3); thus it will last (at least) through the end of Turn 4.

All successfully remain Pack-TI throughout Turn 2, but during the first Player Turn of Turn 3 the crew uses its Inherent FP to attack an enemy unit, using Defensive First Fire and then Subsequent First Fire. Its first attack is treated as Area Fire and removes *its* Pack-TI status for the remainder of Turn 3 (10.11), while its second attack is not Area Fire because it is no longer Pack-TI. Since the crew is no longer Pack-TI, Game Turn 3 cannot count as part of the Unpacking Period. Hence, if the crew becomes Pack-TI again as soon as it can (which would be in RPh Step 1.13B at the start of Turn 4), it will have to remain Pack-TI through the end of Turn 5.

10.31 If the crew is Pack-TI at the start of the *Player*-Turn RPh that follows the completion of *half* of the (Un)Packing Period, it (un)loads the Gun from/onto the Mule at that time as part of RPh Step 1.13B. This action causes no loss of Pack-TI status, and the Gun's owner may freely set its CA as it is unloaded. However, a Pack Gun that is unloaded into a fordable Water Obstacle, non-dry stream, Irrigated paddy, marsh, swamp or onto a Bank counter is eliminated.

EX: Continuing the above example, if the crew had not fired beforehand and thus not lost its Pack-TI status, it would have unloaded the Gun to beneath the Mule during RPh Step 1.13B of the *second* RPh of Turn 3, since half of the Unpacking Period would have been completed at the end of the first Player Turn in Turn 3 (3 [Unpacking Period Game Turns]+2=1½ Game Turns). But since it did fire, it cannot unload the Gun from the Mule until the second RPh of Turn 4. Once the crew does unload it, the Gun will still not be able to fire or be moved, etc., because it will still be Pack-TI until its Unpacking Period is finished (10.11).

10.32 *dm/LIMBERED:* If otherwise allowed, a Pack-TI Gun may be repaired/(un)dismantled/(un)limbered in the normal manner, but only by a Pack-TI crew and only if the Gun is *not* currently loaded on a Mule. Such actions cause no loss of Pack-TI status, nor does the subsequent loss of that TI status negate any of those actions.

10.33 If a player Unpacking a Gun decides to Pack it back onto the Mule (or vice-versa) while all involved are Pack-TI, he states this intention in RPh Step 1.13B in the initial RPh of a Game Turn. The new (Un)Packing Period then begins, and lasts a number of complete Game Turns (as defined in 10.3) equal to the net number already spent (Un)Packing the Gun, but otherwise the same procedures are followed and cause no loss of Pack-TI status. [EXC: If the Gun was unloaded from its Mule involuntarily (i.e., via a 10.4 dr), the new Packing Period would be determined as per 10.3.]

10.4 *VULNERABILITY:* Whenever a Mule is eliminated/Casualty-Reduced while Animal-Packing a Gun and/or Pack-TI, the attacker makes a subsequent dr (Δ) on the following table to find the effect on the Gun:

ANIMAL-PACK GUN VULNERABILITY TABLE

Final dr	Result (only *Low Ammo* can apply if Gun is not loaded on Mule)
≤ 2	Gun is eliminated (or, if already unloaded, is marked with *Low Ammo* counter).
3	Unload Gun in its Malfunctioned state and mark with *Low Ammo* counter.*
4	Unload Gun and mark with *Low Ammo* counter.*
5	Unload Gun in its Malfunctioned state.*
6	Unload Gun.*

* Determine Gun's CA randomly. Gun and Mule (but not the crew) also become (or remain, along with the crew) Pack-TI [EXC: if Gun is unloaded into prohibited terrain (see 10.31), it is eliminated and Pack-TI status is NA].

drm

−1 If the attack eliminated the Mule.

10.41 All applicable results of the dr occur immediately, with no other penalty. If Low Ammo occurs, mark the Gun with a Low Ammo counter (which changes its current B# to an X# and creates a new B# one < that new X#). If a Pack-TI Mule is eliminated/Casualty-Reduced *after* its Pack-TI Gun has been unloaded, the dr is still made; however, all dr results other than the occurrence of Low Ammo are ignored. The effects of each Low Ammo occurrence (including SSR-designated Ammunition Shortage) vs the same Animal-Packed/Pack-TI Gun are cumulative (place extra Low Ammo counters on it as called for). A Gun that survives a dr on this table must still go through a *complete* 10.3 (Un)Packing Period (no Mule is required if it was eliminated) before it can lose its Pack-TI status.

EX: Continuing the above example, assume it is now Turn 5, the Gun was unloaded as per 10.31 in Open Ground during the second RPh of Turn 4, and it, the Mule and crew have remained Pack-TI. During this turn a fire attack causes Casualty Reduction to the Mule but does not eliminate the Gun. The subsequent dr (10.4) is an Original (and Final) 3, but since the Gun is unloaded it is immune to elimination/malfunction results, and the dr causes it only to be marked with a Low Ammo counter (which changes its original B11 to B10 and X11). The Gun and the (now-"HS") Mule remain Pack-TI, as does the crew if it survived the fire attack unbroken and unpinned. If the crew remains Pack-TI through the end of Turn 5, at the start of the first RPh in Turn 6 it, the Gun and the Mule will all have their Animal-Pack counter removed (thus enabling the Gun to be fired, Pushed or hooked up—though with a Low Ammo counter on it).

EX: A moving "squad" Mule Animal-Packing a dm 81mm MTR (with a Manhandling # of 11 and a Breakdown # of 12) in Open Ground is Casualty Reduced by a Defensive First Fire attack, and the subsequent dr is an Original (and Final) 3. The dm Mortar counter is immediately unloaded to beneath the (now-"HS") Mule and is marked with both a Gun Malfunction and a Low Ammo counter. In addition, the Gun and Mule (but not the crew) are also marked with an Animal-Pack counter. Both the Gun and Mule must remain Pack-TI (and thus cannot be fired, moved or advanced) until they have gone through an entire one-Game-Turn Unpacking Period conducted as per 10.3 [EXC: the mortar could be moved again by going through a 10.3 *Packing* Period to place it back *on* another "squad" Mule in order to use Animal-Pack movement].

Should the "HS" Mule suffer Casualty Reduction again while still Pack-TI (note that the only way it can lose Pack-TI status is to complete an Unpacking Period; 10.11), it will be eliminated and the subsequent dr will receive the −1 drm. If this causes the Gun to suffer another Low Ammo result, it will be marked with a second Low Ammo counter and its Breakdown and Disablement numbers will become 10 and 11 respectively. Despite the now-total loss of the Mule, the mortar can still be Unpacked if it and the crew can complete a one-Game-Turn Unpacking Period.

10.42 C11 (Guns as Targets) does not apply to a Gun being Animal-Packed, but does once the Gun has been unloaded. Any gunshield on a Pack Gun is considered non-existent while the Gun is Pack-TI/being-Animal-Packed.

10.5 *COLUMN:* A Mule may be part of a Column (E11.5).

10.6 *DYO:* A Horse/Gun purchased for Animal-Pack purposes retains its normal BPV. In the Purchase Roster entry for the Horse, write down "Mule" *and* record its ID letter.

10.61 *GUNS:* In addition to the Guns mentioned in 10.2, the German $\overline{105}$* MTR and $\overline{75}$* INF, the Russian $\overline{107}$* MTR and 76* INF, and the U.S. $\overline{75}$* ART may be used as Pack Guns by their respective nationalities.

10.7 *SW:* SW of all MMG, HMG, light mortar and 37mm INF types may be Animal-Packed, but must be dm if possible. For Animal-Pack rules purposes only, consider each such SW as equivalent to a Gun whose M# is "12". Animal-Pack rules apply in the normal manner, with the following differences. The SW may be (Un)Packed by any MMC that could operate it with neither Captured- nor Non-Qualified-Use penalties (A21.11-.13). A SW voluntarily unloaded into prohibited terrain (10.31) is not eliminated if its presence would otherwise be allowed there; if involuntarily unloaded (as per 10.4) into such terrain, it is eliminated as if unpossessed [EXC: if on a Bank counter; 10.31].

11. CAVES



11.1 Cave Counters are Fortifications that are available only to the Japanese.[22] They may be set up only prior to the start of the scenario, with a theoretical maximum of six per hex (i.e., one per hexside, as determined by their CA; 11.12). Each Cave counter represents a separate subterranean Location (referred to hereafter as a cave), with its own above-ground entrance, in/IN its hex. Caves are both Rally-Bonus (A10.61) and Concealment (A12.12) Terrain [EXC: see 11.33]. *For cave setup purposes see also 11.91.*

A Cave counter may be set up either IN a Depression (including a Sunken Road or Hill Depression; B4.2 and B19.5), or in a non-Depression (including an Elevated Road; B5.21) hex that shares a hill/cliff Crest Line hexside with another hex whose Base Level is *lower* than the Base Level of the Cave counter's hex; however, no Cave counter may be set up in a building, rubble, marsh, swamp or Water Obstacle hex or IN a non-dry stream. Each Cave counter set up in a non-Depression hex must have its arrow pointing across a hill/cliff Crest Line hexside (of its hex) to the center dot of an adjacent lower-Base-Level hex that contains no Irrigated-paddy/sand/marsh/swamp/water-(even a hexside pond) whose level is ≥ that *cave's* level (11.11). Each Cave counter set up IN a Depression must have its arrow pointing directly *away* from a *non*-Depression hexside (of its hex) whose other common hex has a Base Level (or Crest level—whichever is higher) > that cave's level, *and* that arrow must also point across a Depression (including a Crest-Line-Depression; B19.5) hexside to an adjacent Depression hex. In all cases, the hexside a Cave counter's arrow points *to* is called its *CA Hexside*. No two caves in the same hex may have the same CA Hexside. If a cave is set up in a non-Depression hex, the *other* hex common to its CA Hexside is termed its *Entrance Hex*. If a cave is set up IN a Depression, its *own* hex is its Entrance Hex.

Only Infantry/SW/a-non-vehicular-Gun may be set up in a cave. The non-hidden contents of a cave are placed onboard beneath that Cave counter, while all above-ground contents of the hex are placed (and considered to be) above all Cave counters in that hex.

11.11 *LEVEL:* The cave's elevation level is determined as follows. If the Cave counter is set up:

11.111 IN a Depression, the cave's level equals the Base Level of its Entrance Hex;

11.112 in a non-Depression hex and its CA Hexside is a non-cliff hexside or a one-level cliff, the cave's level equals the Base Level (or Crest level—whichever is higher) of its Entrance Hex;



11.113 in a non-Depression hex and its CA Hexside is a cliff hexside ≥ two levels high, the cave's level is chosen by the Cave counter's owner but must be ≥ the Base Level (or Crest level—whichever is higher) of its Entrance Hex *and* < the Base Level of the Cave counter's hex. A cave set up in this manner should use the side of a Cave counter with "L0", "L1", "L2" or "L3" on it, to indicate the cave's actual level (see the 11.6 illustration). If a cave's level is > the Base Level (or Crest Level—whichever is higher) of its Entrance Hex, that cave is termed an *Upper-Cliff cave.*



EX: Up to five caves may be set up in 25F7, with each using a different hexside of that hex as its CA Hexside; however, hexside F7-G7 cannot be used as a CA Hexside because it is not a hill/cliff Crest Line hexside. Each cave in F7 would be at Level 2 (11.112).

Only one cave may be set up IN F6, and only if F6-E7 is its CA Hexside; this cave would be at Level 1 (11.111), and F6 would be its Entrance Hex (11.1). No cave may be set up IN F6 with F6-G7 as its CA Hexside, because the Base Level of hex E6 (Level 1) would not be higher than that Level 1 cave (11.1). For the same reason, no cave may be set up IN G7.

Two caves may be set up IN E8: one with E8-D7 as its CA Hexside and the other using E8-E9 for its CA Hexside; both would be at Level 1.

No cave may be set up IN E9, because such a cave would not have its arrow pointing away from hexside E9-D8 or E9-F8 while simultaneously having E9-E8 or E9-E10 as its CA Hexside (11.1).

A cave in I7 with I7-H7 as its CA Hexside (thus making H7 its Entrance Hex) may be set up at Level 2 or 3 at its owner's option (11.113); if set up at Level 3 it would be an Upper-Cliff cave.



EX: Two caves may be set up in 36I4 (one with I4-H3, the other with I4-H4, as its CA Hexside)—but only if the stream is not flooded. If it is flooded, the water level in hexes H3 and H4 would be Level 0, thus equalling the level of any caves in I4 and thereby prohibiting their setup in that hex. Likewise, no cave may be set up in I4 with I4-J3 as its CA Hexside because I3 is Level 0 marsh.

A cave set up in K4 with K4-L4 as its CA Hexside is at Level 1; if its CA Hexside were any other hexside of K4 [EXC: hexside K4-K3, which is NA as a CA Hexside], the cave would be at Level 2.

A cave in K2 with K2-J1 (or K2-K1) as its CA Hexside must be at Level 0 despite the two-level elevation change along its CA Hexside (11.112).

A cave may be set up in J4 with J4-I4 as its CA Hexside even though J4-I4 is a road hexside.

CODE OF BUSHIDO CREDITS

DESIGN & DEVELOPMENT: Bob McNamara

HISTORICAL RESEARCH: Bob McNamara (with special thanks to Charles Markuss, Charles Pflanz, Hideo Fujigaki, Takeshi Sato, Chris Gammon, Ryosuke Taniguchi, Dan Murray, Kazunori Imai, Noboru Nishii and Eric Visnowski)

SCENARIOS: Rex Martin, Pat Jonke, Michael A. Balis, Brian Martuzas, Rick Troha

COVER ART: George Parrish

GAME ART: Charles Kibler

PLAYTEST-GROUP COORDINATORS: Frank Calcagno, Steven C. Swann, Rick Troha, Jeff Cebula, Fred Timm, Eugene Murrell, Andy Daglish, Don Chappell, Bruce J. Degi, Michael A. Balis, Brian Martuzas, Jim Stahler, James Collier, Alan Freedman, Gerald Fahrenthold, and Hayne Palmer (Special thanks also to Pat Jonke, Perry Cocke, Chuck Goetz, Damon Norko, Bob Bassin, Guy Chaney, Chris Gammon, Gary Fortenberry and Rex Martin)

TYPESETTING: Colonial Composition

PREP DEPT. COORDINATOR: Lou Velenovsky

PRINTING: Monarch Services

GUNG HO! CREDITS

DESIGN & DEVELOPMENT: Bob McNamara

HISTORICAL RESEARCH: Bob McNamara (with special thanks to Alan Chang, Don Chappell, Charles Markuss, Steven C. Swann and Charles Pflanz)

SCENARIOS: Pat Jonke, Brian Martuzas and Bob McNamara

COVER ART: George Parrish

GAME ART: Charles Kibler

PLAYTEST-GROUP COORDINATORS: Chris Gammon, Steven C. Swann, Jeff Cebula & Louie Tokarz, Eugene Murrell, Bruce J. Degi, Andy Daglish, Michael A. Balis, Jim Stahler, Don Chappell, Guy Chaney, Brian Martuzas, James Collier, Alan Freedman, and Frank Calcagno. (Special thanks also to Pat Jonke, Perry Cocke, Brian Youse, Steve Petersen, Chuck Goetz, Jim McCormick, Andy Shore, Vince Frattali and Gary Fortenberry)

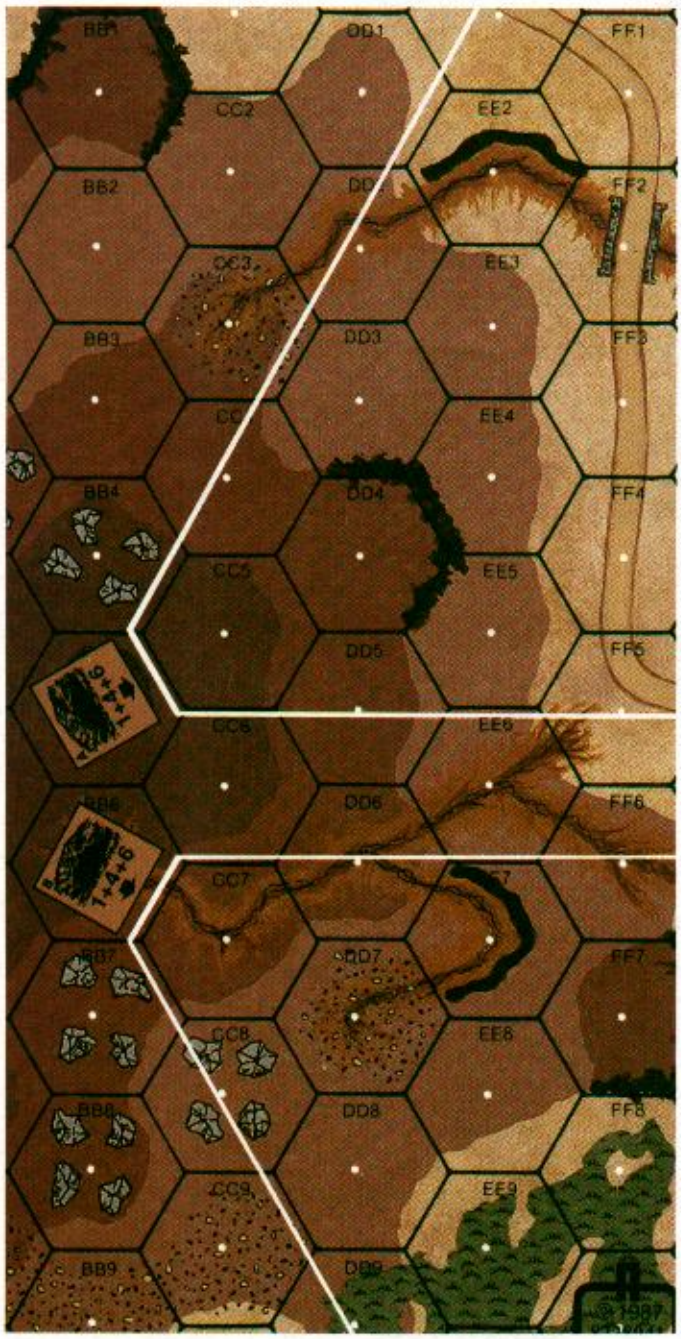
TYPESETTING: Colonial Composition

PREP DEPT. COORDINATOR: Lou Velenovsky

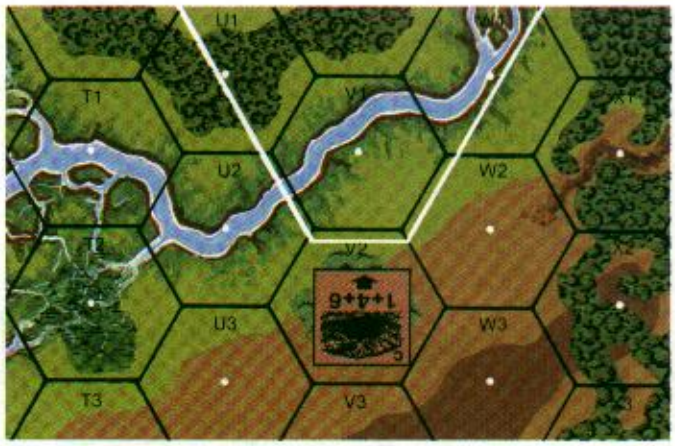
PRINTING: Monarch Services

©1991 **The Avalon Hill Game Company** • Printed in USA • All Rights Reserved

11.12 *COVERED ARC:* The arrow on each Cave counter indicates the direction of its CA, which differs significantly from a normal (C3.2) CA in that it comprises the cave's Entrance Hex plus the area between (and including) an extension of the two hexspines of that Cave counter's hex that touch the vertices of its CA Hexside. The CA of a Cave counter *excludes* all (even Aerial) Locations in that Cave counter's hex, other than that of the cave itself [EXC: the CA of a Cave counter IN a Depression *includes* the area IN its hex]. A hex half in and half out of a cave's CA is considered to be completely within that CA for the purposes of C.5B *only*, even though part of that hex actually *is* outside that CA. A Cave counter can never have its CA changed during play, and must have it recorded when set up using HIP. For the CA of a Gun in a cave, see 11.92.



EX: The CA of caves A (at Level 3 in its Level 4 hex) and B (at Level 2 IN its hex) are shown by the white lines. A unit at ≥ Level 4 in hex 25BB5 is not within the CA of cave A. Infantry in Crest status in DD2 is within cave A's CA only if the word "Crest" on the counter lies along hexside DD2-DD3 or DD2-EE3. A vehicle in Crest status (F5.42) in DD2 is *not* within cave A's CA if its Crest CAFP is at either vertex of hexside DD2-CC2. Above-ground Infantry IN BB6 are within cave B's CA, but would not be if they were in Crest status.



EX: The CA of cave C includes hex U1 except for hexsides U1-T1, U1-T0 and U1-U2 [EXC: its CA *does* include vertices U1-V1-U2 and U1-T0-U0].

11.2 *CAVE COMPLEXES:* Cave Complexes are Fortifications that are available only to the Japanese. Up to 25% (FRD) of the original number (see 11.91) of Cave counters in the Japanese OB may be considered *Primary* Cave counters. Each Primary Cave counter has an associated Cave Complex that abstractly represents a series of underground passageways extending from the cave's Location, thus enabling Japanese Infantry to move unseen from one point to another. Each Cave Complex comprises the hex that contains its Primary Cave counter plus any/all other hexes within two hexes of that counter [EXC: no hex containing any Irrigated-paddy/-sand/marsh/swamp/Water-Obstacle-(including a hexside pond)/non-dry-stream may ever be a Cave Complex hex, nor may a Cave Complex extend past any such hex(es) (or past any sunken/elevated road hex[es]) so as to isolate any hex(es) of that Complex from the rest of its hexes; Cave Complexes may not overlap (i.e., each hex that would be inside the boundaries of ≥ two Cave Complexes must be assigned [on the CCSS; 11.32] to just one of them)]. No Primary Cave counter may be set up in an elevated road hex. Each Cave Complex is both Rally-Bonus and Concealment Terrain, and is considered *one multi-hex, subterranean Location* separate from all other Locations (even pillbox/cave Locations set up within its boundaries). Only Infantry/SW/non-vehicular-Gun(s) may be set up in a Cave Complex.

11.3 *HIP:* Cave counters, as well as their contents, are always considered to be in Concealment Terrain regardless of the other terrain in their hex and always set up hidden. Cave Complexes and their contents always set up hidden. HIP for caves, Cave Complexes, and their contents is in addition to all other HIP allowed to the Japanese side. Normal rules for HIP and HIP-loss apply to Cave counters (A12.33/E1.16/G.2) and their contents except as stated otherwise (see 11.31 and 11.75). A Cave counter set up in a jungle, kunai or bamboo hex is considered to occupy that terrain type for the purposes of G.2, provided its CA Hexside is not also a cliff hexside. When a Cave counter is revealed it is placed onboard, but its hidden contents are *not* unless their "?"-loss action revealed that Cave counter [EXC: Searching; 11.33].

11.31 *HIDDEN ACTIONS:* Currently *hidden* Infantry (and their SW/Gun/prisoner[s]), even if not originally set up using HIP and even if not in Good Order, that conduct a "?"-loss activity to-enter/while-in a cave or Cave Complex *remain hidden* if no Good Order enemy ground unit within 16 hexes currently has a LOS to them. If they remain hidden, that activity is indicated in their Cloaking Box (see 11.32) in the proper manner but need not be announced to the opponent.[23]

11.32 *CAVE-COMPLEX SETUP SHEET (CCSS):* The hidden setup of caves, Cave Complexes, and their contents is recorded on the CCSS by their owner, using the symbols on the next page. Each hidden Cave counter (and its contents) is set up in the Cloaking Box whose ID letter corresponds to that of the Cave counter. The contents of each Cave Complex are set up in the Cloaking Box whose *two-letter* ID corresponds to the single-letter ID of that Complex's *Primary* Cave counter. Each cave's ID letter is recorded in the proper hex on the CCSS to show its hidden onboard position.

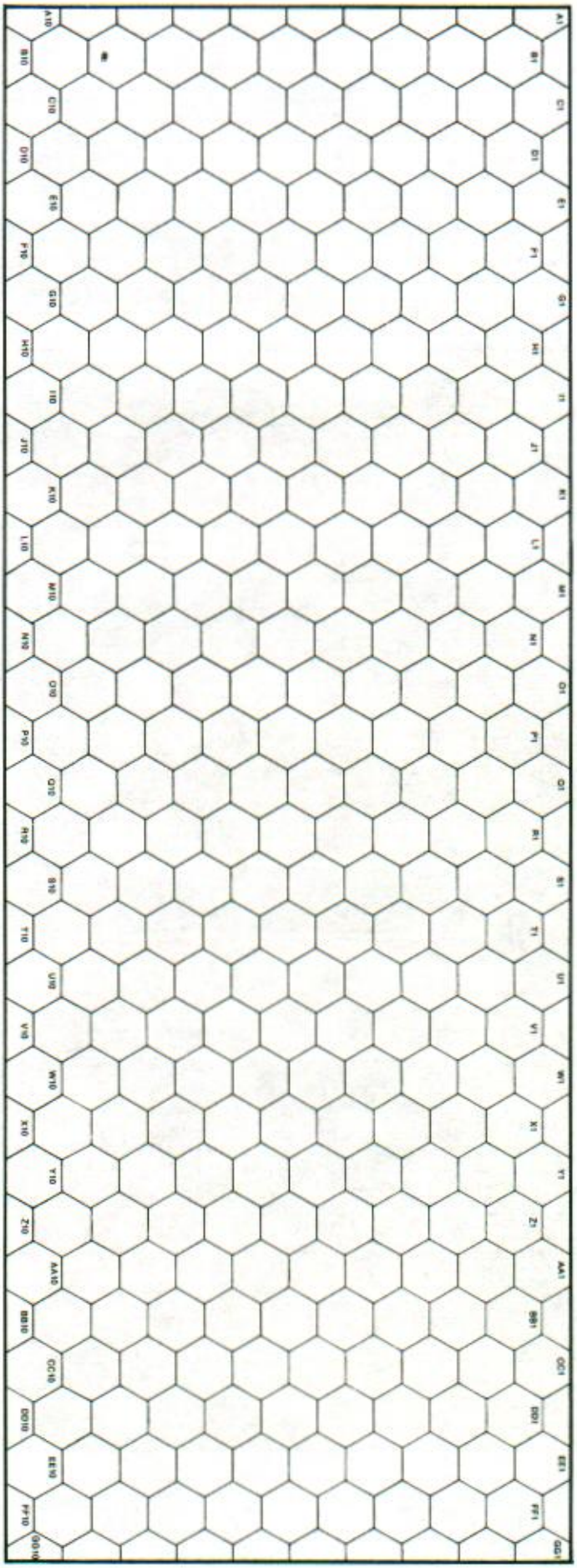
CAVE-COMPLEX SETUP SHEET (CCSS)

A, B, etc.	Cloaking Box ID of hidden unit/stack
#A-B, #A-P, #A-T	A-B (14.53), A-P or A-T mines ("#" indicates strength)
ATD/A	Antitank Ditch ("A" indicates Cloaking Box ID of counter and its occupants, if any)
BS/A	Bore Sighted Location ("A" indicates Cloaking Box ID of weapon)
↑	Indicates weapon CA (point to hexspine)
# / A	Cave ("^" points to center of hex from vertices of CA Hexside; "#" indicates level; "A" indicates ID of Cave counter and Cloaking Box ID of it and its occupants)—for a Primary cave, record all this *in red*
----------	Cave Complex boundary (draw along hexsides)
Cr/A	Crest counter (arrow indicates hexside aligned with word "Crest"; "A" indicates Cloaking Box ID of counter and its occupants)
DC/A	Indicates Set DC (use "A-TDC/A" for Japanese A-T Set DC)—"A" indicates ID of controlling unit
F/A	Foxhole ("A" indicates Cloaking Box ID of counter and its occupants)
FL#	Fortified Building Location ("#" indicates Fortified level[s]; "0" for ground level, etc.)
⊔⊔⊔	Panji Covered hexside
P/A	Pillbox (arrow indicates CA; "A" indicates Cloaking Box ID of counter and its occupants)
P-R/A	Pre-Registered hex ("A" indicates ID of OBA battery)
R	Roadblock (arrow indicates roadblock hexside)
S/A	Sangar ("A" indicates Cloaking Box ID of counter and its occupants)
X	Tetrahedron (14.51)
T/A	Trench ("A" indicates Cloaking Box ID of counter and its occupants)
———	Tunnel (draw to/from center dots)
O#	Above-ground tunnel entrance/exit ("#" indicates level)
●	Subterranean tunnel entrance/exit
~~X X X~~	Wire
X	Denotes an eliminated Fortification

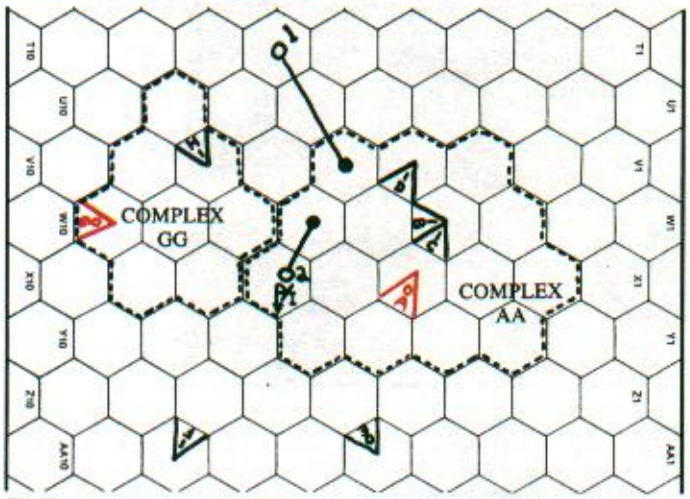
Notes:

Btty A: ____mm Btty B: ____mm Btty C: ____mm Btty D: ____mm

Avalon Hill grants permission to photocopy this sheet for personal use.



11.321 Other hidden Fortifications may be recorded on the CCSS, as may units and weapons using normal HIP. Additional symbols for these are shown on the preceding page.



EX: The diagram on the sample CCSS shows the hidden setup of the Japanese side on board 36. Assume streams to be shallow. The triangles represent hidden caves A-H, whose counters and occupants set up in Cloaking Boxes A-H respectively. Caves A and G are Primary caves, and their two Cave Complexes (referred to as AA and GG respectively) are shown. Cloaking Box AA will be used to hold Cave Complex AA's occupants, and Cloaking Box GG will hold those in Complex GG. A hidden pillbox is also present, with its CA centered on hexspine Y6-Y7 and its counter and occupants in Cloaking Box I. The pillbox's Inherent tunnel (1.632) leads into Complex AA. A second (SSR-designated, for the purpose of the example) tunnel runs (as per 11.933) from Complex AA to above-ground in hex T6. Caves E and F are within the boundaries of neither Complex. If cave G were set up in W8, the boundaries of Complex GG could (but would not need to) have been drawn to include hex(es) W6/X6 and thus the pillbox/its-tunnel, provided those hexes were *not* also part of Complex AA. Note that neither Cave Complex contains any marsh/swamp/stream hex; nor are hexes V10, X10 and Y10 part of Cave Complex GG, because they would be isolated from the rest of that Complex (11.2).

11.33 *SEARCH & RECON:* A Search successfully conducted vs a hidden Cave counter's hex— even by a unit not in the cave's CA—reveals all Cave counters in that hex and their contents as per A12.152. A Recon (E1.23) conducted vs a hidden Cave counter's hex reveals all Cave counters in that hex but *not* their contents (11.3). Search/Recon cannot be used vs a Cave-Complex/its-contents. A cave does not invoke the +2 Search drm given in 1.63; i.e., it is *not* considered Concealment Terrain vs a Search.

11.4 *STACKING:* Each cave has a stacking capacity of *one* squad-equivalent (Overstacking can still occur), separate from (i.e., in addition to) normal hex stacking limits. This is indicated on each Cave counter by the lefthand numeral in its Strength Factor. For Guns in caves see also 11.92. The stacking limits of a Cave Complex equal twice the number of Cave counters originally set up within its boundaries. Overstacking can occur in a Cave Complex [EXC: NA during setup; A5.1], but no *unbroken* unit/stack may *enter* an already-Overstacked Complex if its entry would increase the squad-equivalency therein. All units and equipment in the same Cave Complex are assumed to be stacked together. Note that Infantry in the cave(s)/tunnel(s)/pillbox(es) within the boundaries of a Cave Complex are *not* part of that Complex and so do not count towards its stacking limits.

EX: See the 11.321 illustrations. Cave Complex AA has a stacking limit of eight, while that of Cave Complex GG is four, squad-equivalents. If Complex AA already contains ≥ 8½ squad-equivalents, no other *unbroken* Infantry may enter it during any phase [EXC: ≤ four SMC could enter, provided none would be further increasing the squad equivalency therein as per A5.5].



EX: This illustration shows the main board-36 area represented on the sample CCSS, and what it would look like if the hidden pillbox and caves were all revealed.

11.5 *LOS:* LOS to/from a cave is traced to/from the cave hex's center dot and the *cave's* level, but can exist only if traced *entirely* within that cave's CA (*exclusive* of its CA Hexside vertices only if the cave is IN a Depression; see B19.51). Hence no LOS exists between different caves in the same hex, nor between the Aerial and cave Location(s) of the same hex, nor between a cave and the above-ground Base-Level Location of its *non*-Depression hex. Barring other LOS obstructions, LOS may be traced within the CA of a cave in a non-Depression hex to/from an elevation lower than the cave's if its Entrance Hex contains no terrain (including a Crest Line) whose obstacle height along that LOS is > that cave's level. No LOS ever exists to/from a Cave Complex, but always exists between units in the same Complex. If a cave's CA Hexside is also a cliff hexside, no LOS exists between that cave and a Climbing unit at a vertex of that CA Hexside and at a different level than that cave.

EX: See the 11.12 illustrations. There is no LOS between a unit at ≥ Level 4 in 25BB5 and the occupants of caves A and B, nor does a LOS exist between units occupying different caves in BB5 (or IN BB6, if > one cave were allowed therein). The occupants of caves A and B have no LOS to each other. Despite the fact that cave A is at Level 3, its occupants *do* have a LOS across the Crest Line in hex CC5 to CC4, DD4, DD5, etc. [EXC: EE4 and FF3 are Blind Hexes (A6.4; A6.43; B11.21); their LOS does not exist INTO DD2, EE2 or FF2 (A6.3), nor to the Crest level of DD2 on the "hex CC2/DD1" side of the Depression (11.12)]. The occupants of cave B have a LOS only INTO their own hex, into and INTO CC7, to FF7, and to Climbing unit(s) at Level 2 in FF8/GG7 at vertex FF7-EE8-EE7/FF7-FF6-GG7. There is no LOS between a unit in cave B and the Crest level of DD6 (B19.51), nor between a unit in CC6 (or AA6) and either cave. No LOS exists from a unit in cave C to hexsides 36U1-T1 and 36U1-U2 [EXC: vertex U1-V1-U2 is in its LOS].

EX: See the first 11.6 illustration. A unit in cave G has no LOS to a unit Climbing at vertex T4-S5-S4 (or T4-T5-S5) and at a level other than Level 1. A Climbing unit at Level 0 on vertex T4-S5-S4 is in the LOS of a unit in cave A; and a Climbing unit at Level 2 on vertex T4-T5-S5 is in the LOS of a unit in cave M.

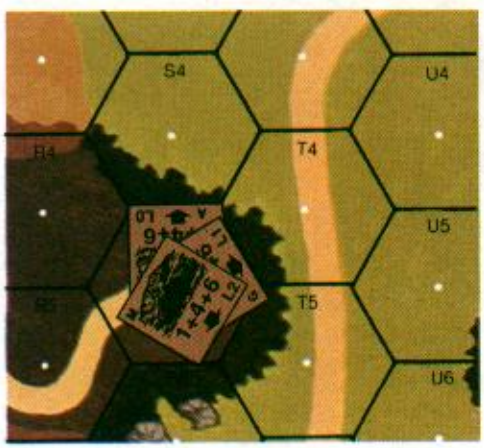
11.51 *CONTINUOUS SLOPE:* If the LOS from a unit in a cave whose CA Hexside is also a *hill (only)* Crest Line hexside lies along a Continuous Slope *when disregarding the Cave counter's hex*, then a Continuous Slope is considered to exist from that cave along that LOS.

EX: See the first 11.12 illustration. Despite the fact that cave A is at Level *three* in hex BB5, the LOS from that cave to FF5 lies along a Continuous Slope.

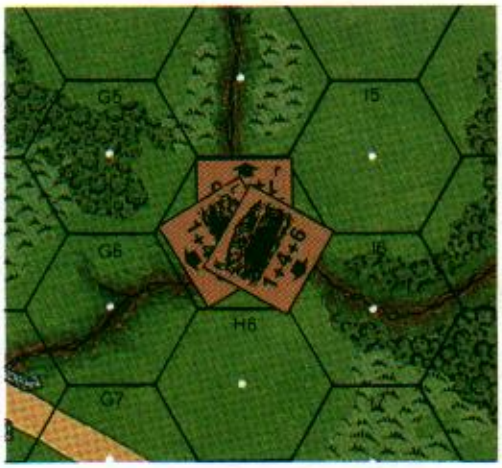
11.52 *RIGHT OF INSPECTION:* The contents of a cave/Cave-Complex may not be inspected by the opponent, but he can demand verification of an action taken by a unit in a cave (only).

11.6 *ADJACENT/ACCESSIBLE:* Each cave is Accessible to all other caves that lie in/IN the same hex with it *and* within one level of it. Each cave is also Accessible to the Cave Complex (if any) whose boundaries it is set up within. Each Cave Complex is Accessible to each cave set up within its boundaries, to each other Complex it touches (i.e., shares ≥ one common hexside with), and to each other Location connected to it by a tunnel (11.933) [EXC: despite being defined as Accessible, a Cave Complex cannot be entered during the APh from another Cave Complex that touches it; 11.73]. A unit is ADJACENT to a cave if Japanese Infantry in/IN that unit's Location would have a LOS to that cave and could advance directly into it.

EX: See the 11.321 illustrations. Caves B and C are Accessible to each other. Cave Complex AA is Accessible to caves A, B, C and D, to both tunnels (and thus also to the pillbox and hex T6; 11.933) and to Cave Complex GG—and vice-versa. Caves A, D, E, F, G and H are not Accessible to each other, nor to caves B or C; however, cave G and Complex GG are Accessible to each other, as are Complex GG and cave H. Caves E and F are not Accessible to either Complex. An Allied unit in W5 is considered ADJACENT to caves B and D even though it could not advance into those caves (see 11.7).



EX: Cave A is at Level 0; cave G is at Level 1; cave M is at Level 2. Caves A and G are Accessible to each other, and caves G and M are Accessible to each other, but Caves A and M are not.



EX: Caves J, K and L are all Accessible to each other. Only an above-ground unit IN H5 is ADJACENT to those caves.

11.7 *CAVE ENTRY:* A cave may be entered from above-ground only from its Entrance Hex, and from below-ground only from an Accessible (11.6) cave/Cave-Complex. Only *Japanese Infantry* (and their SW/Manhandled-Gun/Guarded-prisoner[s]) may enter a cave [EXC: a Gun may enter a cave only from an Accessible Cave Complex; 11.76], and their normal cost to do so is two MF [EXC: see 11.751]. Entry of an Upper-Cliff cave (11.113) from above-ground requires Climbing (B11.4).

EX: See the 11.321 illustrations, and assume no hidden movement (11.751). Cave C can be entered only from hex X4 (at a cost of two MF), from cave B (at a cost of two MF), or from Cave Complex AA (at a cost of two MF). Caves A and D can be entered only from Y5 or W5 respectively, or from Complex AA. Cave G can be entered only from W10 or from Cave Complex GG. Cave F can be entered only from Z7. Cave E can be entered only from Z5 [EXC: not from the bridge Location; B6.4]. See also the 11.71 example.

11.71 *SAME-HEX ENTRY:* Entry of a cave from an Accessible (11.6) cave in the same non-Depression hex costs one additional MF per level change [EXC: see 11.751]. Entry of a cave IN a Depression is possible *from above-ground* only from IN that Cave counter's hex. Infantry in a cave IN a Depression who wish to enter another cave IN that same hex must first exit to above-ground IN that hex (see 11.72), and then make a separate MF expenditure to enter the other cave [EXC: see 11.751]. They may do this even during the APh if otherwise allowed.

EX: See the 11.6 illustrations, and assume no hidden movement (11.751). Cave A can be entered only from S4 (at a cost of two MF) or from cave G (at a cost of three MF). Cave G can be entered from cave A or cave M, or from T4 by Infantry that Climb up to Level 1 along hexside T4-S5, or from S5 by Infantry that Climb down to Level 1 along that same hexside. Cave M can be entered from cave G, or from T5 by Infantry that Climb up to Level 2 along hexside T5-S5, or from S5 by Infantry that Climb down to Level 2 along that same hexside. Infantry in cave J, K or L may enter any other cave IN that hex at a cost of three MF; see 11.72.

11.72 *CAVE EXIT:* Infantry in a cave in a non-Depression hex exit directly to above-ground by crossing that cave's CA Hexside to its Entrance Hex; normal hex-entry principles and MF costs apply [EXC: an Upper-Cliff cave may be thusly exited only by Climbing]. Exiting directly to above-ground from a cave IN a Depression leaves the Infantry IN that same (i.e., IN that cave's Entrance) hex; the normal cost to enter INTO that above-ground Location is one MF (like exiting a pillbox). For exiting a cave into a Cave Complex see 11.73.

EX: See the 11.6 illustrations. Infantry in cave A must expend one MF to enter hex S4. Caves G and M may be exited directly to *above-ground* only via Climbing. Infantry in cave J, K, or L would exit to above-ground by expending one MF (unless using hidden movement; 11.751) to enter INTO H5—even if H5 were a gully-woods (or gully-brush) hex.

11.73 *CAVE COMPLEX:* A Cave Complex may be entered only from an Accessible (11.6) cave/Cave-Complex/tunnel-(11.933), but such entry costs *no* MF (11.751). Infantry may not rout *from* a Cave Complex, nor may they advance from one Complex to another.

11.74 *RESTRICTIONS:* The Inherent MF allotment of every Infantry unit (even if wounded/berserk/Conscript/SMC) is four MF, and no Double-Time/leader MF bonus can apply, during a MPh or APh in which it enters a cave or Cave Complex. However, regardless of phase, an Infantry unit may enter a cave or Cave Complex from an Accessible cave/Cave-Complex *only* if it has ≥ two MF available (considering its SMC PP bonus [A4.42] and possessed SW PP, if any), even if its move requires no MF expenditure (11.751); neither Minimum Move nor Advance into Difficult Terrain can be used for such entry. Infantry that enter a cave (even from

above-ground) or Cave Complex cannot enter another cave, Cave Complex or tunnel during that same phase.

EX: A Japanese squad carrying six PP may neither move nor advance from a cave to an Accessible Cave Complex (or vice-versa), because it has only one MF to expend and cannot use Double Time. A leader stacked with it could not apply his MF bonus, but if he has ≥ two MF available he could add his IPC to the squad's (A4.42) to increase its available MF to two, thereby enabling them to enter (as a stack) an Accessible cave or Cave Complex. See also the 11.751 example.

11.75 *HIDDEN MOVEMENT:* Currently *hidden* Infantry (and their SW/Gun), even if not originally set up using HIP, that enter a cave from an Accessible cave/Cave-Complex or that enter a pillbox from a Cave Complex (through a connecting tunnel; 11.932-.933) may remain hidden if no Good Order enemy ground unit within 16 hexes has a LOS to their *new* Location when they enter it. If such a LOS does exist, they are placed onboard concealed and *thereafter* are subject to normal "?"-loss rules [EXC: if in Open Ground IN a Depression as they exit one cave to enter another thereIN, they are completely revealed if such a LOS exists]. A hidden unit/stack that exits a cave to above-ground is immediately placed onboard concealed but its "?" can be lost (even instantly) as per normal "?"-loss rules (A12.32) [EXC: it may remain hidden if exiting one cave to enter another IN the same hex, provided no Good Order enemy ground unit within 16 hexes currently has a LOS INTO that hex]. Infantry that enter/exit a hidden cave to/from above-ground need not reveal the hexside (if any) they have just "crossed".

When non-hidden Infantry (even if not in Good Order) enter a cave that no Good Order enemy ground unit within 16 hexes currently has a LOS to, they (and their SW/Gun/prisoner[s]) may immediately *become hidden*; i.e., they may be removed from the board (*instead of* being moved into that cave/Cave-Complex) and placed in the appropriate Cloaking Box. Infantry in a cave cannot become hidden at the end of their CCPh.

All Infantry, even if not originally set up using HIP and even if not in Good Order, automatically become/remain hidden as they enter a Cave Complex.

11.751 *MF COST:* Infantry that enter a non-hidden cave expend *no* MF to do so if they remain hidden (11.75) when they enter it. Infantry that enter a hidden cave expend no MF to do so (A12.33). Entry of a Cave Complex costs *no* MF.

EX: See the 11.321 illustrations. Hidden Japanese Infantry in cave A may enter Cave Complex AA without losing their hidden status, and this is accomplished simply by moving them from Cloaking Box A directly to Cloaking Box AA. If the Infantry in cave A are not hidden, they become hidden as they enter Complex AA; i.e., they are removed from the board and placed in Cloaking Box AA. In neither case do they expend any MF to move thusly (although they still need to have ≥ two MF available in order to make that move at all; 11.74).

Unbroken Infantry in Complex AA may directly enter Complex GG only during their MPh (11.73), but will remain hidden (i.e., will be moved from Cloaking Box AA directly to Cloaking Box GG). If they wish to continue on into cave G they must await their APh (11.74), at which time, *if* no Good Order enemy ground unit within 16 hexes of W9 currently has a LOS to that hex across hexside W9-W10, they may advance into that cave (by being placed in Cloaking Box G) and remain hidden. However, if such a LOS to W9 does exist, when they advance into the cave they will be placed onboard, concealed, beneath the Cave G counter (and will have expended two MF to enter the cave).

Hidden Infantry in cave B (or D) that enter hex W5 during their MPh or APh are placed onboard concealed, unless a Good Order enemy ground unit within 16 hexes of W5 has a LOS to that hex when they enter it, in which case normal "?"-loss rules apply.

If no Good Order enemy ground unit within 16 hexes of AA8 has a LOS to cave F, Infantry (even if broken) entering that cave from Z7 are immediately placed in Cloaking Box F.

EX: See the 11.6 illustrations. Hidden Infantry in cave G with ≥ two MF available may move or advance into cave A (or cave M) without losing their hidden status if no Good Order enemy ground unit within 16 hexes of S5 currently has a LOS to the cave they are entering. Hidden Infantry in cave J, K or L moving or advancing into one of the other caves IN H5 may remain hidden if no Good Order enemy ground unit within 16 hexes of H5 currently has a LOS INTO that hex.

11.76 *MANHANDLING:* A Gun [EXC: one with a Large Target Size; C2.271] may be Pushed during the MPh by a MMC (or its SMC equivalent) from a cave to an Accessible Cave Complex (or vice-versa) as per 11.75-.751. No Manhandling DR is needed. Manhandling into/out-of a cave/Cave-Complex/tunnel is otherwise NA.

EX: See the 11.321 illustrations. A 47L AT in cave A, B, C or D cannot be Pushed to above-ground, but can be Pushed into Cave Complex AA. However, from that Complex it can be Pushed *only* back into one of those same four caves. It cannot be Pushed from cave B directly to cave C or vice-versa.

11.77 *ROUTING:* A broken Japanese unit need not rout to the nearest woods/building if it can rout to a cave that is at least as close (in MF). A broken unit in a cave or Cave Complex is not required to rout to the nearest woods/building. A broken but non-DM unit in a cave is made DM by the presence of an ADJACENT (11.6) enemy unit in the normal (A10.61) manner. A broken unit in a Cave Complex cannot voluntarily remain DM, nor can it rout out of that Complex (11.73).

11.8 *TEM & ATTACK EFFECTS:* A cave has a +4 TEM [EXC: its TEM is +6 vs OBA/Area-Target-Type attacks]. This is indicated on the counter by "+4+6" in the Strength Factor. Cave TEM is not cumulative with any other +/−TEM, but is cumulative with SMOKE DRM. A cave is considered an Interior Building Location for all weather- and environment-related effects (only); i.e., no wind, rain, snow, dust, fog, mud, etc. can ever exist in a cave. Any unit/weapon that fires out of an Overstacked cave is subject to Area Fire (as well as normal Overstacking) penalties. A unit in a cave cannot claim Wall Advantage. Non-hidden, non-prisoner Infantry in caves are eligible sniper targets. No type of attack can affect a Cave Complex or its contents in any way [EXC: see 11.88].

11.81 *(NON-)HIDDEN CAVES:* Each attack [EXC: Area Target Type; OBA; Aerial bombs; Residual FP; Bombardment] vs a hex that contains ≥ one Known (to the firer) cave must predesignate *one* such cave in that hex as its target if it wishes to possibly affect that cave/its-contents; once one cave is predesignated, no other Location in that hex can be "hit" by that attack [EXC: Spraying Fire (11.811); FT (11.834); canister (11.836)]. Neither a *hidden* cave nor its contents may be predesignated as a target, included as part of any Random Selection DR, or hit/affected by any attack other than Bombardment (11.841). [EXC: a FT can also attack the occupants of all Accessible caves (11.834); WP can reveal all Accessible caves (11.851).]

EX: See the 11.321 illustrations. If a squad in hex X5 fires into W4 without predesignating cave B *or* cave C as its target, it cannot affect the occupant(s) of either cave (i.e., it is assumed to be attacking only the Level 2 Location in W4). If the squad specifies that it is firing at cave B, that attack can affect neither Cave C nor W4's Level 2 Location (unless it is using Spraying Fire; 11.811). If cave G is hidden and an Allied unit in/IN W10 fires into W9, its attack could not affect cave G's occupant(s) and thus could not reveal the cave.

11.811 *SPRAYING FIRE:* Provided they are predesignated targets (11.81), Spraying Fire can affect two (only) cave Locations that are within one level of each other and share a common CA Hexside vertex. However, a Spraying Fire attack cannot include > one cave Location if it includes a non-cave Location, nor can one that includes two non-cave Locations include any cave Location.

EX: See the 11.321 illustrations. A squad in X5 and able to use Spraying Fire could use it vs cave(s) B/C/D only in the following ways: vs cave B and W4's Level 2 Location; vs cave C and W4's Level 2 Location; vs cave B and cave C; vs cave B and W5's Level 1 Location; vs cave C and X4's Level 1 Location; vs cave B and cave D; vs cave D and W5's Level 1 Location; or vs cave D and V4's Level 2 Location.

EX: See the 11.6 illustrations. A Gun in U5 using IFE vs S5 could utilize Spraying Fire only in the following ways: vs cave G and cave M; vs cave G and any unit(s) Climbing in T4 at Level 0, 1 *or* 2; vs cave M and S5's Level 3 Location; vs cave M and any unit(s) Climbing in T5 at Level 1, 2 *or* 3; or vs cave G and T4 (and excluding all Climbers in T4). A unit/weapon in/IN H5 could not use Spraying Fire vs its own hex at all (A9.5).



11.812 *CONCEALMENT:* Hidden/concealed status in a cave neither halves the FP of, nor adds a TH DRM to, attacks vs its occupants. However, all other HIP/"?" benefits apply unchanged (e.g., such status can negate the Sighting TC −2 DRM; E7.3).



11.82 *RESIDUAL FP:* Residual FP may be placed in a cave only if that cave was the attacker's predesignated target (11.81) [EXC: if an Aerial-bomb/Area-Target-Type attack leaves Residual FP in a cave's Entrance Hex, it also leaves Residual FP in that cave *if* it caused a PTC-or-better result therein]. Existing Residual FP in a cave in a non-Depression hex acts as a Snap Shot vs each unit crossing (in non-Bypass fashion) that cave's CA Hexside (or Climbing to that cave's level) but remaining above-ground; for a cave IN a Depression, it acts as a Snap Shot vs each above-ground unit crossing (in non-Bypass fashion), or moving to/from Crest status from/to IN that hex along, the hexside that Cave counter's arrow points directly *away* from. However, in no case would it attack a unit on a Crest/Climb counter at a different level than that of the cave. Like any other type of Snap Shot, such Residual FP is first halved as Area Fire.

EX: See the 11.321 illustrations. Four Residual FP in cave G would cause a two-FP Snap Shot vs a unit moving from above-ground in W9 to W10 or vice-versa. If W9 contained woods instead of brush, a unit Bypassing that woods to vertex W9-W10-V9 or W9-X9-W10 would *not* be subject to a Snap Shot from the Residual FP in cave G.

EX: See the 11.6 illustrations. Two Residual FP in cave G would cause a one-FP Snap Shot vs a unit that enters Level 1 by Climbing along hexside S5-T4. Six Residual FP in cave K would act as a two-FP Snap Shot vs a unit moving from IN H5 to G5 (or vice-versa), or from IN H5 to Crest level (or vice-versa) along hexside H5-G5—but could not attack a unit in G5 Bypassing to vertex G5-H5-G6 or G5-H4-G5.

11.821 *FIRE LANE:* A Fire Lane can originate in a cave but cannot enter one.



11.83 *SW/GUNS:* Neither mortar nor AA fire (E7.5) is allowed from a cave [EXC: a Japanese light mortar[24] may be fired from a cave unless its Entrance Hex is a dense-jungle/bamboo hex whose total obstacle height exceeds that cave's level]. Each Gun in a cave is considered to have a normal (i.e., neither Small nor Large; C2.271) Target Size for TH purposes. Infantry in a cave may Spot for mortars in the normal manner (C9.3).

11.831 *AREA TARGET TYPE:* A non-hidden cave and its contents are immune to Area Target Type attacks whose LOS/LOF enters its hex outside of its CA Hexside. For bomb attacks vs caves see also 11.86.



11.832 *ACQUISITION:* When using the Infantry Target Type, Target Acquisition may be gained/retained vs a Known (to the firer) cave even if that cave contains no Known enemy unit (/even if firing SMOKE as per 11.85).



11.833 *DC:* A DC may be Placed into a cave only by an unpinned, Good Order, non-Climbing Infantry unit that expends two MF (cave entry cost), plus any required SMOKE MF cost, to Place it while ADJACENT (11.6) to the cave—or as per 11.8331. A DC may be Thrown into a cave only by an adjacent, unpinned, Good Order, non-Climbing Thrower who is not more than one level lower than, and who has a LOS to, that cave—and only if the Thrower's owner makes a subsequent Final dr (Δ) of ≤ 3 using the following drm (as applicable): +1 if the cave's level is > that of the Thrower; +1 if the Thrower is in a moving/Motion vehicle; −1 if the Thrower is ADJACENT (11.6) to the cave; and −1 if the Thrower is Heroic/Fanatic.

When detonated, a DC operably-Placed/successfully-Thrown into a cave attacks *only* that cave and its contents, and receives *no* DRM of any kind [EXC: a Placed DC receives a −4 DRM if no unconcealed Good Order Japanese MMC was in the cave when it was Placed]. If a Thrown-DC dr is unsuccessful, that DC falls unpossessed to the Base Level of that cave's Entrance Hex and (unless it malfunctions) will attack that cave, its contents and its Entrance Hex (and the Thrower's Location, if not in that Entrance Hex), with *all* DRM (including the cave's +4 TEM) applying in the normal manner [EXC: it does not attack the cave (and its contents) if it and the cave are now at different levels; it does not attack any *other* cave or cave contents in that Entrance Hex].

THROWN-DC dr Δ

Final dr	Result	drm
≤ 3	Successfully Thrown[a]	+1 cave's level is > that of Thrower
≥ 4	Unsuccessful[b]	+1 Thrower is in moving/Motion vehicle
		−1 Thrower is in ADJACENT (11.6) to cave
		−1 Thrower is Heroic/Fanatic

[a]: DC attacks cave and its contents, *with no* DRM of any kind.

[b]: DC falls unpossessed to Base Level of Entrance Hex and (if no malfunction) attacks that cave, its contents and Entrance Hex (and Thrower's Location, if not in that Entrance Hex), with *all* DRM (including cave's +4 TEM) applying in normal manner [EXC: attack vs cave (and its contents) NA if DC and cave now at different levels; attack vs *other* cave/cave-contents in Entrance Hex NA].

EX: See the 11.321 illustrations. A DC may be Placed or Thrown into cave A only from hex Y5, and into cave E only from IN (or from Crest status on cave E's side of) Z5 [EXC to both: see 11.8331].

EX: See the 11.6 illustrations. A DC may be Placed or Thrown into cave A only from Level 0 in hex S4 (or Placed by a Climbing unit at Level 1 in S4; 11.8331). A DC may be Placed into cave G only by a Climbing unit at Level 2 in T4 (11.8331), or may be Thrown into cave G from Level 0 in T4; if the Thrown-DC dr is unsuccessful, the DC will attack T4 (with a +3/+4 DRM; A23.6) but not cave G. A DC may be Placed into cave M only by a Climbing unit at Level 3 in T5 (11.8331), but cannot be Thrown into cave M. A DC may be Placed or Thrown into cave J, K or L from IN H5—or into cave J from in/IN H4, into cave K from in/IN I6, or into cave L from in/IN G6.

A Thrown-DC dr made vs cave K by a non-Fanatic Infantry squad IN H5 will receive a -1 drm for being ADJACENT as per 11.6. If the DC is successfully Thrown, it will attack cave K and its contents with 30 FP and a 0 DRM but will *not* attack the Thrower's Location. However, if the Throwing attempt fails (and the DC does not malfunction), its attack vs cave K and its contents will receive a +6 DRM (+4 [cave TEM] + 2 [Thrown-DC target's DRM; A23.6] = +6) and its attack vs the Throwing squad's Location will receive a +3 DRM (A23.6). If the squad is instead in/IN I6 when it Throws the DC at cave K, its ThrownDC dr will receive no drm; and if the Throwing attempt fails, I6 too will be attacked by the DC, with a +4 DRM (+1 [woods TEM] +3 [Thrown-DC Thrower's DRM; A23.6] = +4).



11.8331 *CLIMBING:* An unpinned, Good Order Infantry unit at a higher elevation than a cave but not in its CA may attempt to Place a DC into it by declaring such and moving onto a Climb counter whose arrow touches a vertex of that cave's CA Hexside (or, for a cave IN a Depression, touches a vertex of the hexside the Cave counter's arrow points directly *away* from). This type of Climbing is allowed even along a *non*-cliff hexside—in which case the Climb counter is placed in the cave's hex;[25] such a Climbing unit is considered to be in the hex containing its Climb counter and in the Location specified by the level of that counter. All Climbing rules apply except as stated otherwise (e.g., no Falling DR is made unless the unit is actually Climbing a cliff hexside *and* must change level). The Climbing unit may attempt to Place its DC only when it is one level *above* the cave. The attempt is allowed despite the fact that no LOS exists between the unit and the cave. No extra MF expenditure is required for Placement. When the Placement attempt is made, the ATTACKER must make a subsequent dr as per 11.833 (i.e., as if he were Throwing the DC); if the dr is unsuccessful, the DC is eliminated without detonating.

EX: See the 11.321 illustrations. An Allied squad carrying a DC at Level 2 in hex V4 may attempt to Place it in cave D by declaring its attempt at the start of its MPh (since Climbing uses its entire MF allotment; B11.43) and being placed on a Level 2 Climb counter in V4 with its arrow pointing to either vertex (Placing unit's choice) of hexside V4-W5 (cave D's CA Hexside). Its owner then announces that the DC is being Placed, and makes the 11.833 subsequent dr. Defensive First Fire then follows, using the Placing unit's vertex aiming point. If the Placing unit survives until the APh it may advance off the Climb counter to Level 2 in V4.

EX: See the 11.6 illustrations. An Allied squad at Level 3 in S5 that wishes to Place a DC in cave M will follow the same procedure as given in the preceding example, except that a Level 3 Climb counter will be placed in hex T5 since the unit is Climbing a real cliff (however, no Falling DR will be required because the squad will not have to ascend/descend to make the Placement attempt). A DC Placement attempt made vs cave L by Infantry in I5 would *not* require the Infantry to first attain Crest status along hexside H5-I5; at the start of its MPh it would simply declare the attempt and be placed on a Level -1 Climb counter in H5, with the arrow pointing to vertex H5-H4-I5 or H5-I5-I6. If hexside H5-I5 were a Depression cliff (B11.1), or if the Infantry unit began its MPh in Crest status along hexside H5-I5, the procedure would be exactly the same [EXC: in the latter case the Climb counter would be placed on the Crest counter (but the unit would still be treated as Climbing)].

11.8332 *SET DC:* A DC may be Set in a cave by an Allied unit even though that unit cannot enter the cave. Normal Set DC rules apply except as stated otherwise. The unit must spend its entire MPh to Set the DC while ADJACENT (11.6) to the cave. If the cave's CA Hexside is also a hill/cliff Crest Line hexside, the Setting unit must also be declared to be occupying a specified vertex of the cave's CA Hexside at the same level as the cave. This may require the Setting unit to be on a Crest/Climb counter in certain situations; however, a unit Setting a DC while on a Crest counter cannot claim its entrenchment TEM. A unit on a Climb counter may Set a DC only vs a cave/its-contents. When Set, the DC is put in the cave Location. If no unconcealed Good Order Japanese MMC is in the cave when the Set DC dr is made, that DC receives an *extra* −4 DRM for IFT (not malfunction) purposes.

EX: See the 11.321 illustrations. An Infantry unit may attempt to Set a DC in cave G only if it starts its MPh in hex W10 on a Crest counter centered on hexside W9-W10, and only if it declares at that time that it is at the W9-X9-W10 or W9-W10-V9 vertex to Set a DC. For Defensive First Fire purposes it is still considered to be in W10 (though at that vertex aiming point), in the Open Ground (unless negated by Hindrances, or by SMOKE in W10) occupied by that vertex, and using Hazardous Movement. If the DC is Set while no *Known* Good Order Japanese MMC is in the cave, it will receive a total IFT DRM of −7 (assuming it does not malfunction).

EX: See the 11.6 illustrations. An Infantry unit attempting to Set a DC in cave G must first spend one MPh in T4 Climbing to Level 1. Only at the start of its next MPh may it attempt to Set the DC (using the vertex to which the arrow on its Climb counter points as its declared vertex position for Setting the DC).



11.834: *FT:* A FT attack vs a cave can affect only the occupant(s) of that cave Location [EXC: if the cave is in a *non*-Depression hex, the FT also attacks the occupants of all (even hidden) caves Accessible (11.6) to that cave, using the same FP *quartered* and the same Original IFT DR].



11.835 *SCW & HEAT:* A SCW [EXC: PIAT] fired from a cave causes a Desperation penalty (C13.81) unless it is using Opportunity Fire or the Case C[3] TH DRM [EXC: firing a SCW other than a PIAT from an Upper-Cliff cave always causes a Desperation penalty]. HEAT may be fired at Infantry/a-Gun in a cave.

11.836 *CANISTER:* Canister FP is halved vs a cave (prior to all other modifications). However, canister can affect the occupants of all in-LOS caves that its firer has predesignated, as well as each above-ground Location that is within one level of (and in the same hex with) a cave being attacked by that canister.



11.837 *RADIO/FIELD-PHONE:* A radio may be used in a cave only if it has remained therein since the scenario's initial setup. A field phone may be used in a cave; moreover, its Security Area (C1.23) may partially comprise a line of contiguous, Accessible cave/CaveComplex Locations even if their hexes do not have the same coordinate letter or number. The subterranean portions of a Security Area are immune to DR results that would cause the field phone line to be cut [EXC: any HE FFE Original KIA DR vs, or the elimination of, a cave Location that is part of the Security Area].



11.84 *OBA:* A non-hidden cave and its contents are immune to OBA unless the attack vs its hex crosses that cave's CA hexside. For this purpose, OBA is considered traced from the center of the road exiting the firer's Friendly Board Edge at hexrow Q, or at hex A5/6 or GG5/6, as applicable [EXC: a non-Aerial Offboard Observer's hex always serves as that hex for its battery].

11.841 *BOMBARDMENT:* A cave has a Morale Level of 11 vs Bombardment. Every cave in a Bombarded hex must take a NMC. If it passes it is unaffected, its contents take no Bombardment MC, and all HIP therein is retained. If the cave fails its NMC, it and all of its contents are eliminated; if they are hidden, this is done without telling the opponent where the elimination(s) occurred or what was eliminated (except for VP/ELR purposes as per 11.88).



11.85 *SMOKE:* SMOKE may be placed in/IN a Cave counter's *hex* in the normal manner, in which case the SMOKE counter is placed (and considered to be) above all Cave counters in that hex. Each SMOKE-grenade/Direct-Fire-ordnance attempt to place SMOKE *into a cave itself* must predesignate that cave as its target; such attempts may be made even during a Heavy Wind. Indirect Fire cannot place Smoke in a cave, but can place WP in a cave *if* it achieves a WP CH vs that non-hidden cave Location. WP successfully placed (by any means) in a cave is automatically a CH therein, and uses the reversed TEM applicable to that type of attack. Smoke dispensers (D13.) cannot place smoke in a cave.

An attempt to place SMOKE grenades in a cave may be made if the placing unit is either in, or is in a position where a DC could be Thrown into (11.833), that cave. Such an attempt made from above-ground succeeds only upon making a Final Thrown-DC dr of ≤ 3 as per 11.833 (i.e., as if the unit were Throwing a DC). Each ½" SMOKE counter placed in a cave remains onboard (beneath that Cave counter) and in effect until the *end of the Player Turn* in which it was placed.

A Direct-Fire ordnance attempt to place SMOKE in a cave requires the firer to have a LOS to the target cave and to use the *Infantry* Target Type. The +2 Basic TH# modification for firing SMOKE at ≤ 12 hexes (C4.4) is NA, but the cave's +4 TEM (TH Case Q) applies. If the Final TH DR yields a hit (and the Original TH DR is ≤ the SMOKE Depletion number), the appropriate SMOKE is placed beneath the Cave counter. Acquisition *may* be gained (11.832), and retaining Multiple ROF *is* possible.

A predesignated attempt to place SMOKE in a cave which fails only due to too high a subsequent-dr/TH-DR causes the SMOKE (if created) to be placed at the Base Level of that cave's Entrance Hex, but *no* WP NMC ensues from that attempt.

SMOKE in a cave is not considered to exist in the rest of that hex, nor does SMOKE above all Cave counters in a hex exist in those caves. Contrary to A24.8, the "outgoing LOS" DRM of SMOKE in a cave equals *twice* that SMOKE's current maximum applicable DRM (instead of an additional +1).

EX: See the 11.321 illustrations. SMOKE placed in hex W4 but outside of caves B and C is considered to rise from Level 2 and does not affect LOS to/from those caves.

A non-moving, BU Sherman tank in Z8 (but not in Bypass) attempting to fire SMOKE into non-hidden cave B or C would have to predesignate one of them as its target (11.81); and using the Infantry Target Type would place a SMOKE counter beneath its targeted Cave counter on an Original TH DR of 2 or 3 [the Basic (and Modified) TH# is 8, and the total TH DRM equal +5 (+4 [TEM] and +1 [BU])]. If its Original TH DR is ≥ 4 but ≤ the SMOKE Depletion number, the SMOKE would instead be placed in W5 (if cave B were the target) or X4 (if cave C were the target).

The LOS of Infantry in a cave is blocked (B.10) if that cave contains SMOKE with an applicable DRM of +3, since their "outgoing" SMOKE DRM is +6.



11.851 SMOKE never drifts into/out-of a cave. However, when a ⅜" WP counter in a cave is flipped to its Dispersed side, and when *any* (i.e., ½" or ⅜") WP counter in a cave is removed from play (even via elimination of that Cave counter), all other hidden caves Accessible to that cave, plus all other hidden caves set up within the boundaries of the same Cave Complex (if any) which that cave is set up within, plus the above-ground entrances/exits of all tunnels that connect to that Complex, are immediately revealed (regardless of LOS), provided they are also at a *higher* level than that cave. No SMOKE can ever exist in a Cave Complex. A hidden pillbox is *not* revealed just because a tunnel entrance/exit in it is; the tunnel's owner states merely that a tunnel opening exists in that hex.[26]

EX: See the 11.321 illustrations. Full-strength ⅜" WP placed in cave C would, when it becomes Dispersed, reveal only the tunnel-opening in the X6 pillbox (since all other caves/tunnel-openings connected to Complex AA are at ≤ the level of cave C; see 11.933 for tunnel levels). However, if that WP had been placed in cave A, all other caves within that Complex and both of the above-ground tunnel openings (in T6 and X6) would be revealed.

EX: See the 11.6 illustrations. A ½" WP counter in cave A would be removed after placing "?" at the end of the Player Turn, at which time Cave counters G and M would be placed onboard if previously hidden. WP placed in cave G would be treated the same but would reveal only cave M. WP placed in cave M, J, K or L would reveal no other cave in/IN its hex. SMOKE placed IN H5 would affect all LOS to/from caves J-L, but would not reveal any of those caves.



11.86 *AERIAL:* A non-hidden cave is considered a building for Sighting TC (E7.3) purposes. If a FB/DB passes a Sighting TC vs a cave and declares that cave a designated target, all (including friendly) occupants of that cave's Entrance Hex which are in the plane's LOS are assumed to have been Sighted as well. Each Aerial attack vs an Upper-Cliff-cave/its-contents receives an extra TH (for bombs) or IFT (for MG) DRM equal to the difference in levels between it and the Base Level (or Crest level—whichever is higher) of its Entrance Hex. Each Aerial attack vs a cave/its-contents is also resolved simultaneously vs *all* Sighted units/targets in its Entrance Hex just as if the plane were attacking that Entrance Hex, using the same Original TH/IFT DR used vs the cave but modified individually for each target. If Napalm (17.4) is used for a bomb attack, the resulting Blaze and Smoke counters (17.41) are placed in the Entrance Hex unless otherwise prohibited.



11.87 *CC:* No type of CC attack is allowed between a unit in a cave and one outside of it.

11.88 *ELIMINATION:* A cave can be eliminated only by a DC attack, or by a HE [EXC: HE Equivalency] attack of ≥ 100mm, that is resolved in that cave [EXC: Bombardment (11.841); dozer (15.22)]. If the Original (Final, for a Set DC or for one Placed while no unconcealed Good Order Japanese MMC occupies the cave; 11.833) IFT DR of the DC attack is a KIA, or if the HE attack is a CH, that Cave counter and all of its contents are eliminated.

A unit/SW/Gun in a Cave Complex is immediately eliminated when it lacks a legally traversable route (regardless of length) into-a-cave/to-above-ground. When this occurs, the opponent is not told exactly what was eliminated. He is informed of the Casualty VP he has thereby amassed, *if* scenario Victory Conditions require him to amass Casualty VP; and he is informed of any change in the Japanese ELR due to resulting Battlefield Integrity effects.

EX: See the 11.321 illustrations, and assume that Infantry and a Gun occupy Cave Complex AA. The Infantry in that Complex will be eliminated only if caves A-D, G and H, as well as both above-ground tunnel openings, are destroyed. The Gun would be eliminated upon the destruction of caves A-D, since it could be Pushed into neither Cave Complex GG nor a tunnel and thus would lack a route into a cave. Note that mere Allied *Control* of those tunnel-opening and cave Locations would not suffice to eliminate the Infantry/Gun.

11.9 *MISCELLANEOUS:* No cave or Cave Complex may be created/moved during play.

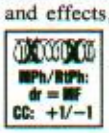
11.91 *OB:* The number of caves available to the Japanese is listed in their OB. However, each cave set up as an Upper-Cliff cave (11.113) subtracts *three* from the number of caves available for setup. Cave Complexes (11.2) are not listed in the Japanese OB. The number of Cave Complexes available to the Japanese side is not reduced by the setup of any Upper-Cliff cave(s).

EX: If the Japanese OB contains four Cave counters, they may be set up as four caves that do not require Climbing to enter from above-ground, or as one such cave plus one Upper-Cliff cave. In both cases, one of those caves (owner's option) will also be the Primary cave of a Cave Complex. If the Japanese OB contains only one, two or three caves, one Upper-Cliff cave may be set up but the remaining caves (if any) are forfeited; and, regardless of whether one, two or three caves are set up, they do *not* grant the Japanese side a Cave Complex (since 25% [FRD] of one, two or three is zero).



11.92 *GUNS:* One non-vehicular Gun of any type and Caliber/Target Size may be set up in each cave [EXC: NA if it is being Animal-Packed]. While one Gun occupies a cave, no other Gun may be set up in or enter (or be re-assembled from a dm SW in) that Location. The CA of a Gun in a cave always coincides with that Cave counter's CA at all times— but this itself does not prevent it from being Pushed from that cave into an Accessible Cave Complex or vice-versa.

11.93 *FORTIFICATIONS:* No Fortification may exist in a cave/Cave-Complex; however, a tunnel may connect to a Cave Complex as per 11.933. All Fortifications in a Cave counter's *hex* retain their normal capabilities and effects, but only outside that cave and at their normal setup level.



11.931 *WIRE:* Infantry exiting a cave directly into/INTO a wire Location are placed above that Wire counter.



11.932 *PILLBOX:* Infantry in a pillbox cannot enter a cave/Cave-Complex without first entering the above-ground Location in their hex [EXC: they may enter a Cave Complex (and Infantry may enter a pillbox *from* a Cave Complex) via a connecting tunnel; 11.933]. See also 11.75.

11.933 *TUNNELS:* Standard tunnel rules apply to tunnels connected to Cave Complexes except as stated otherwise. For the purposes of Rules Section G11, a tunnel is considered one subterranean Location Accessible to the two Locations it connects, and the two Locations it connects are considered Accessible to each other [EXC to both: a tunnel may be entered only during the MPh/RtPh]. A tunnel may connect an above-ground Location to a Cave Complex or connect two different Cave Complexes—but may never enter/exit a hex that contains any Irrigated-paddy/sand/marsh/swamp/Water-Obstacle-(including hexside-pond)/non-dry-stream. Otherwise, within its three-hex length limit, a tunnel may have a subterranean entrance/exit in any hex of a Cave Complex. A tunnel connected to a Cave Complex may change elevations, but not more than one level per hex, and must always lie one level lower than the Base Level (or, for an Interior Building Hex, than the ground level) of its hex [EXC: any tunnel entrance or exit *not* in a Cave Complex is assumed to lie at the Base Level (or, for an Interior Building Hex, at the ground level) of its hex]. A tunnel entrance/exit revealed by WP (11.851) may be Recovered and subsequently destroyed (B8.61) even if no Japanese unit has used it in Allied LOS.

EX: See the 11.321 illustrations. The pillbox's tunnel could not be set up directly to/through hex X5 or Y6 because it would have to be at Level 2 in X6 and at Level 0 in X5/Y6. Japanese Infantry in T6 that wish to enter Cave Complex AA during the MPh would be removed from the board at the start of their MPh and placed in Cloaking Box AA beneath a Sewer counter. Their APh would consist of the Sewer counter being removed from them. During their next MPh they could enter the tunnel leading to the pillbox by being placed beneath a Sewer counter again and moved to Cloaking Box I; then in their APh they would either appear onboard or, if they can enter the pillbox while remaining hidden (11.75), would remain in Box I but have their Sewer counter removed. Infantry that exit Complex AA via the V5-T6 tunnel are placed onboard beneath a Sewer counter during their MPh but are still considered to be subterranean and out of all enemy LOS; their APh consists of exchanging the Sewer counter for a "?".

11.934 *SEWERS:* Sewers cannot connect to any other type of subterranean Location.

11.94 *CONTROL:* An unhidden cave *not* occupied by a Good Order Japanese MMC is considered Controlled by any Good Order Allied Infantry MMC ADJACENT (11.6) to it. Such Control remains in effect—regardless of that Allied unit's subsequent status/presence—until the cave *is* occupied by a Good Order Japanese MMC (even if hidden). A subterranean unit can Control only the Location it presently occupies.



11.95 *FIRE:* A Blaze in a cave/Cave-Complex hex but outside that subterranean Location does *not* force that cave's/Cave-Complex's occupants to leave the hex (nor would SMOKE rising from higher than their level affect them). Caves and Cave Complexes are not Burnable Terrain.

11.96 *NIGHT:* A cave is Illuminated only if its hex *and* its Entrance Hex are Illuminated. No Cave Complex can ever be Illuminated. A unit moving in a cave or Cave Complex is not subject to Straying until it moves above-ground. Despite being Concealment Terrain, the MF entry cost of caves/Cave-Complexes is not increased (as per E1.3) at night.



11.97 *BERSERK:* Infantry in a cave become Battle Hardened on a Final Heat of Battle DR of ≥9. No cave occupant is considered a Known enemy unit for berserk-unit creation/charge purposes.



11.98 *PRISONERS:* An Allied prisoner in a Cave Complex must have a Guard at all times, and cannot attack its Guard in CC. Should that Guard be eliminated anyway (e.g., by Fate) while no other unit is present/able to become the new Guard, the prisoner may attempt no action whatsoever. Any Allied unit that becomes rearmed/an-escaped-prisoner while in a cave is instantly moved to that cave's Entrance Hex, regardless of Overstacking/enemy-units in that Location and even if the Allied unit must undergo a mine attack (or be put on a Climb counter) to enter it.

11.981 *INTERROGATION:* If a unit in a cave is revealed by Interrogation (E2.), that cave is revealed as well. If a hidden Primary cave is revealed by Interrogation, the prisoner player must announce that it is in fact a Primary cave. Interrogation cannot reveal any Cave Complex contents.

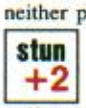
11.99 *DYO:* Only the Japanese side may purchase caves. Each Cave counter has a BPV of 20 prior to 1944, and of 10 in 1944-45.

12. LANDING CRAFT

[Note: This rules Section does not apply to amphibians (D16)]

12.1 Eight types of Landing Craft (LC) are provided in *GUNG HO*. The LCP(L), LCVP, LCA, LCM(3), LCT(4) AND LCI(S) are U.S./British-(A25.4) types, while the Daihatsu and Shohatsu are Japanese. LC are treated as boats (E5.) except as stated otherwise, but the rules specific to assault boats and rafts (E5.11-.122) do not apply. LC are also considered vehicles; however, they are *not* treated as AFV except as specifically indicated.

12.11 *INHERENT CREW:* Each LC, regardless of its nationality/type, has an Inherent crew whose Morale Level is 8. Normal rules for CE status and Collateral attacks apply except as stated otherwise. A LC Inherent crew can *never* be BU or claim any BU benefit. An armor leader can be neither part of a LC's Inherent crew nor generated (H1.43) by a LC.



12.111 *STUN/RECALL:* A LC does *not* suffer Recall due to MA disablement. A LC Inherent crew can be Stunned, but does not BU (12.11). A Recall due to attack effects (D5.341-.342) suffered by a LC Inherent crew is always treated as a Stun result *only*; i.e., no Recall ensues. However, the +1 DRM effects of all Stun results vs a LC Inherent crew are *cumulative*. For Stun see also 12.13, and for Recall see also 14.232. A LC whose crew receives a Stun result does not Stop; however, if it is *not* Beached/immobilized, the attacker immediately makes a Random Direction dr for the LC and repositions it within its present hex so that the randomly determined hexside lies within its VCA[27] and, if the Stun occurs during the LC's MPh, it is then assumed to have expended all of its remaining MP (if any) in that new facing. Being Stunned does not itself make a LC Immobile (12.2).



12.112 *CREW COUNTER:* A LC Inherent crew cannot voluntarily Abandon its LC, nor is it subject to Immobilization TC. However, whenever a LC Inherent crew Survives (see 12.691), it is represented by a 1-2-6[5] vehicle-crew counter of some nationality (e.g., Chinese, Italian or Axis Minor) that is not in play. Such a crew *counter* is assumed to be of the same nationality as the LC it came from and to have all normal vehicle-crew qualities, but is considered Inexperienced Personnel [EXC: if firing a SW MG or vehicle-mounted AAMG, the Inexperienced B# penalty (A19.32) does not apply].

12.113 *INEXPERIENCED:* If a LC's *Inherent* crew is defined as Inexperienced, that LC has its MP allotment reduced by one. An Inexperienced LC Inherent crew has no other effect [EXC: (un)Beaching during Heavy Surf; 13.442].

12.114 *VP:* A LC crew's Casualty VP value is "1", whether it is Inherent or not.

12.12 *PASSENGERS:* When used in reference to a LC, the term "Passenger" (or "Passengers"—even when mentioned in acronym form as "PRC") refers collectively to all Personnel/SW/vehicles/wrecks/Guns /horses/boats (and the PRC of Passenger vehicles) being carried by or (un)loading from/onto that LC. All LC may carry Personnel/SW, but only those having a Ramp (12.41) may carry vehicle(s)/Gun(s)/horse(s)/boats [EXC: no LC may *be* a Passenger]. Within these restrictions, a LC may carry any combination of the items listed in the LC Passenger PP Cost Chart on the Chapter G divider, with the total indicated PP applying to the LC's PP capacity. A LC retains all unpossessed equipment (and all wrecks) aboard it.

12.121 *VEHICLE/GUN/SW:* A vehicle that is a LC Passenger may itself carry/tow Passengers/SW/Gun(s) if otherwise able and allowed to. A Mule LC Passenger may Animal-Pack a Gun as per 10.1. The VCA of each vehicle, as well as the CA of each Gun, that is a LC Passenger must coincide with that LC's VCA (or "rear" VCA); see also 14.23. A Passenger vehicle cannot claim or retain Motion status independently of its LC.

12.122 *MORALE:* All Personnel and Inherent-crew Passengers aboard a LC are considered to have a Morale Level of 8.

12.123 *BU/CE:* LC Passengers [EXC: certain large vehicles/Guns as per 12.65 and 12.671] are considered BU through their/the-LC's *armored* Target Facing(s). LC Passengers can *never* be CE or claim any CE benefit(s)—even if not normally allowed to be BU (e.g., a Carrier HS/crew [EXC: see 12.674]).

12.124 *ACTIONS:* Aside from (un)loading (12.4-.421; 12.45), the only actions allowed by LC Passengers are MC/TC resolution (△; 12.13), unhooking of Guns (12.42), wreck removal (12.43) and SW Transfer/Recovery.

12.13 *MC/TC:* While aboard a LC, *all* Inherent crews and Personnel Passengers (even the PRC of Passenger vehicles) are immune to Immobilization TC, PTC, LLMC, LLTC and booby-trap attacks, and are not subject to Pin/Heat-of-Battle results. A LC crew never breaks while Inherent; i.e., one that suffers a break result while receiving no, or a reduced, CE DRM (12.6; D5.311) always suffers a *Stun* result instead (see also 12.111). While aboard a LC, any Personnel Passenger that suffers a break/Step-Reduction result for *any* reason always suffers a Casualty Reduction result instead. No leadership/heroic modifier may be applied by/to a unit aboard a LC.

EX: An attack by Small-Arms/MG fire vs an LCP(L) through its unarmored side Target Facing—or through its armored front Target Facing from a Location with sufficient elevation advantage to lower its CE DRM to < +2—will Stun that LC's crew if it fails any MC caused by that attack. A SMC/MMC aboard an LCM(3)—even if a Passenger on a vehicle being carried by that LC—suffers Casualty Reduction whenever it fails a MC.

12.14 *RIDERS:* No type of Rider is allowed on a LC or on any type of conveyance aboard that LC.

12.15 *STACKING:* LC PRC (including Passenger vehicles) do not count towards Location stacking limits (A5.3); therefore, they cannot be Overstacked. However, a LC is Overstacked when in the same Location with any other vehicle that is not a Passenger aboard a LC.

12.151 *VEHICLE & INFANTRY STACKS:* All ⅝" vehicles [EXC: motorcycles], their PRC and hooked-up Guns, and all wrecks, that are Passengers on the same LC must be stacked together, and are referred to collectively as that LC's *Vehicle Stack*. Their top-to-bottom arrangement in that Stack represents their front-to-rear positions aboard that LC for (un)loading purposes (12.42-.43). All Personnel counters [EXC: the Passenger(s) of that LC's Passenger vehicle(s) (if any)], and all motorcycles, horses, boats and Pushed Guns, aboard the same LC are referred to collectively as that LC's *Infantry Stack*. Each Personnel counter in the LC's Infantry Stack is referred to as an *Infantry-Passenger* (but is still considered a Passenger—not an Infantry—unit). The top-to-bottom arrangement of the Vehicle Stack may not be re-arranged during play, but the Infantry Stack may be re-arranged just as if that LC were an Open Ground land hex (see also 12.45). The number of counters each Stack contains may change due to (un)loading/unhooking (12.4-.421; 12.45).

12.2 *MOVEMENT:* LC expend only MP, and cannot be carried/moved on(to) land (including marsh/swamp) or a frozen Water Obstacle. LC are not paddled, and need no minimum number of Passengers in order to expend MP. The normal movement rate for LC is one MP per Water Obstacle Location entered. A LC may change its VCA only during its MPh, and must expend one MP per hexspine to do so [EXC: when changing VCA due to a Stun; 12.111]. A LC entering a Location that contains a wreck/friendly-unit [EXC: SMC] *in the water* must expend one extra MP for *each*, as part of that Location's COT. LC do not expend Stop MP [EXC: when using Reverse movement (12.22) and/or adjacent to a pier (13.731)], but must expend a Start MP to un-Beach. A LC is considered non-Stopped unless it is Beached/immobilized (or has expended a Stop MP as per 13.731/D2.23; see also 13.4421), and is considered Mobile (even if Stunned) unless it is immobilized/Aground. LC may use Platoon Movement during the MPh, like AFV *with* radios.

DR ≥ 12 AGROUND Beached

12.21 *AGROUND:* When during its MPh/APh a LC *enters* a shallow-OCEAN hex (13.4) while at the same time becoming closer (in hexes) to any Beach hex (13.1) that lies within three hexes of that shallow OCEAN hex, that LC's owner must immediately (i.e., before any Beaching/Stopping declaration/attempt as well as before Defensive First Fire) make a Bog DR (△) [EXC: no such Bog DR is made if Heavy Surf effects (13.441-.447) apply in that hex]. The only DRM is that LC's Bog DRM (the "+#" just to the left of the printed MP allotment on the counter), and a +1 if the hex contains wire and the LC's Target Size is *not* −3 or −4 (14.52). If the Final DR is ≥ 12, that LC immediately runs Aground; i.e., it Bogs *and Beaches* in that hex. However, it Beaches *within* that hex—not across a hexside as per 12.3. Mark the LC with an Aground counter. A LC cannot voluntarily run, and cannot Drift while it is, Aground. One Bog DR is made as per D14.21 if using Platoon Movement.

FAST AGROUND Beached & Immobilized

12.211 *FAST AGROUND:* An otherwise-Mobile LC may attempt to remove its Aground (and thus its Bogged) status at the start of its MPh, provided it has not fired during its PFPh. Removal is attempted by expending as its Start MP an amount of MP equal to an Original dr (instead of the usual one MP for Starting). If that Final dr (△) is ≤ 4, the LC is freed (even if its total MP allotment is < the Original dr) but is still in the Bog hex and is now considered to be using *Reverse* movement (12.22); the LC may then use any remaining MP to Stop/change-CA/move-normally. If the Final dr is a 5, the LC becomes Mired (12.211). If the Final dr is ≥ 6, the LC becomes Fast Aground; i.e., it remains Aground (and thus Beached) but is immobilized (D8.1) in that hex. Its Aground counter is flipped to the Fast Aground side, and its Mired counter (if any) is removed. The only possible drm is a +1 if the LC is presently Mired. A LC (or LC wreck) can also become Fast Aground as per 12.69, 13.441, 13.4421 and 13.4422.

MIRED +1 Bog dr

12.211 *MIRED:* If a LC becomes Mired, it is marked with a Mired counter and thereafter receives a +1 drm to its future Bog Removal attempts as long as it is Mired. The Mired drm is not cumulative for being Mired more than once.

12.22 *REVERSE:* A LC may use Reverse movement as per D2.2-.24, at double its applicable forward-movement entry-cost per hex. It may end its MPh in Reverse Motion (F.11), but may not voluntarily end its MPh while Stopped (unless adjacent to a pier; 13.731).

12.23 *DRIFT:* LC Drift in a River as per B21.121; otherwise they Drift only in Ocean during Heavy Surf. See 13.12, 13.44 and 13.444.

12.3 *(UN)BEACHING:* A LC may Beach as per E5.23 across any non-cliff, water-land (including a Beach-OCEAN [13.2] and OCEAN-Hinterland [13.41]) hexside [EXC: LC Beaching can occur during the APh *only* if Heavy Surf is in effect in the LC's hex (13.44) and only via an (un)Beaching DR (13.442); no LC may Beach onto a bridge]. Position the LC counter to straddle that hexside, but without changing its VCA. A Beached LC is still considered for all purposes to be in that Water Obstacle Location. A LC un-Beaches by declaring such and expending a Start MP (based on a dr if Aground; 12.211); it is then considered to be using Reverse movement, and must Stop as per D2.23 before using forward movement (but note also 12.22). A LC is also Beached when it is Aground (12.21-.211) or a wreck (12.69).

12.4 *(UN)LOADING:* Except as stated otherwise, normal Vehicle—not Boat—(un)loading rules (D6.4-.5; D8.5) apply to LC and their Passengers. A LC Passenger *may* unload into an enemy-occupied hex. If a LC is Aground (or is Beached across a hexside that is *not* within its VCA), units may unload from it only into its hex, and do so by expending 25% (FRU) of their MF/MP allotment (plus COT MP if it is a vehicle). There is no D2.14 penalty cost for the presence of the LC in the Location, but Overstacking will apply when a *vehicle* [EXC: motorcycle] is in the same Location as a LC but is not a Passenger on one. A unit wishing to load onto an Aground LC must be in (or enter, expending that Location's COT to do so—plus, if it is a vehicle, one extra MP for the presence of the LC; D2.14) that LC's Location, then expend 25% (FRU) of its MF/MP allotment (plus, if it is a vehicle, one MP as the LC's COT *and* one MP to Stop).

12.401 If the LC is Beached across a hexside that lies within its VCA, units may unload from it across the Beached hexside. A unit thusly unloading must expend 25% (FRU) of its MF/MP allotment (plus COT MP if it is a vehicle); if the unit is unloading to a higher elevation, this % cost is doubled (if expending MF) or increased by four MP. A unit wishing to load follows the reverse of this procedure—but if it is a vehicle it must also expend, after paying the 25% of its MF/MP allotment to load, one MP as the LC's COT *and* one MP to Stop.

12.402 If the LC is immobilized and in shallow water but is *not* Beached, only Personnel and their possessed SW may (un)load from/onto it, and may do so only to/from the LC's hex. Such (un)loading requires a 50% (FRU) MF/MP expenditure.

12.403 A vehicle aboard a LC may not expend a Start MP until (but must do so when) it attempts to unload. Passengers (un)loading from/onto a LC may not use Armored Assault, Platoon Movement or Assault Movement, nor may they attempt ESB, during that MPh; however, radioless AFV are automatically assumed to pass a movement NTC (D14.23) for a MPh in which they will (un)load from/onto a LC. An allowed vehicle may (un)load while towing a Gun (unless using Reverse movement; C10.1) by also paying the extra MF/MP for towing. A vehicle may neither unload from a LC onto, nor load onto a LC from, a bridge Location. See also 12.121.

12.404 If a LC's printed MP allotment has been reduced by an Inexperienced-crew-(12.113)/Blaze(s)-(12.68), it is still assumed (for Defensive First Fire purposes) to expend the required percentage of its printed MP allotment when (un)loading any Passenger(s). If the total

required cost for a unit to (un)load from/onto a LC exceeds 100% of that unit's Inherent/printed MF/MP allotment, it can (un)load only by making a Minimum Move [EXC: a vehicle making a Minimum Move to *load* ends its MPh Stopped].



12.41 *RAMP:* If "PP" on the LC counter is underlined, that LC has a bow ramp and may carry any type of Passengers as per 12.12. If "PP" is not underlined, that LC may carry only Personnel/SW. A LC's ramp is always considered "up" (i.e., raised) [EXC: it is considered "down" (i.e., lowered) from the time the first Passenger (un)loads from/onto that *Beached* LC until such time as that LC either expends a Start MP to un-Beach or makes a 12.211 DR in an attempt to remove its Aground status (whichever occurs first); see also 12.43]. There is no MP cost for a LC to raise or lower its ramp. If a LC has no ramp (and/or is immobilized and in shallow water but is *not* Beached; 12.402) the normal 25% (un)loading cost is increased to 50% (FRU). A LC's ramp cannot be jammed or otherwise damaged or eliminated.

12.42 *PASSENGER VEHICLE/GUN:* Vehicles may unload from a LC only in the top-to-bottom order of its Vehicle Stack; hence if the topmost ⅜" vehicle cannot/does-not unload, no ⅜" counter beneath it in that Stack can. A vehicle that loads onto a LC is placed at the top of that LC's Vehicle Stack (if any). Hooking up a Gun to a vehicle is NA while both are LC Passengers, but unhooking is allowed just as if the LC were an Open Ground land hex [EXC: unhooking is NA if it would cause the LC's PP capacity to be exceeded]. A Gun thusly unhooked is placed beneath its possessing Infantry-Passenger unit. A SW/Gun may not be (un)Packed while aboard a LC.

12.421 *MANHANDLING:* Manhandling a Gun, boat or motorcycle from/onto a LC is allowed only if the LC is Beached, but otherwise follows the same procedure as (un)hooking a Gun from/to a towing vehicle (C10.11;C10.2) [EXC: if the LC is Beached across a hexside that lies within its VCA, it and the item being Manhandled start/end the procedure adjacent to each other across that hexside as per 12.401; Manhandling an item off of a LC is NA if any non-motorcycle vehicle is currently aboard that LC]. MF/MP (un)loading costs are assessed as per C10.11 or C10.12 as applicable (possibly modified as per 13.443 if Heavy Surf is in effect). Any resulting TI status does not apply to the LC or its other PRC.

12.43 *PASSENGER WRECK:* If a non-burning wreck appears in a LC's Vehicle Stack, no ⅜" counter *beneath* it in that Stack, nor any ⅜" counter in that LC's Infantry Stack, may unload until the wreck has been removed as per D10.42 [EXC: such removal can occur only if the LC is Beached, no ⅜" counter (except for possibly the removing AFV) is stacked above that wreck, and no ⅜" counter lies between that wreck and the removing AFV]. When such removal occurs, the LC's ramp is considered to be down as if it were unloading Passengers. A Passenger vehicle/wreck aboard a LC does not increase the cost to enter the LC or its Location. Each wreck aboard a LC still applies its pre-wreck PP cost to the LC's PP capacity. An Immobile vehicle is considered equivalent to a non-burning wreck for all of the above purposes.



12.44 *BLAZE:* No unit may board a LC that contains any Blaze(s). A LC that is itself Ablaze (12.68) has no effect on the ability of its Passenger(s) to unload. A burning wreck aboard a LC cannot be removed, so the only Passenger(s) that can possibly unload from it are the vehicle(s) (and their PRC/towed-Guns) stacked *above* that burning wreck in the Vehicle Stack and that LC's Infantry-Passenger(s) (and their possessed *SW*).

12.45 *PASSENGER-VEHICLE PRC:* Unless otherwise prohibited (e.g., by the LC's PP capacity; 12.12), PRC [EXC: a LC's Inherent crew; Riders are NA (12.14)] may (un)load from/onto a LC's Passenger vehicle(s) to/from the LC itself during that LC's MPh, just as if the LC were an Open Ground land hex [EXC: no FFMO/FFNAM/Overstacking penalties apply]. Their MF expenditures do not affect, and are not affected by, the LC's MP expenditures [EXC: all such MF/MP expenditures are governed by the "simultaneous expenditure" of MF and MP (12.4) during any MPh in which such a Passenger/crew also unloads from the LC itself (or boards it and then becomes a Passenger/crew of a vehicle aboard that LC)].

12.5 *NON-CC ATTACKS FROM/BY LC:* The Inherent weapon(s) of a LC may Prep Fire only if the LC is Fast Aground and Inherently crewed. All penalties for moving/Motion/non-Stopped/AFPh fire apply in the normal manner. Cumulative Stun DRM (if any; 12.111) also apply. A LC may not conduct an OVR, nor may LC PRC place/fire SMOKE. LC Passengers may not attack in any way.

12.6 *NON-CC ATTACKS vs LC:* Depending on the type of attack, whether an armored Target Facing is considered to have been struck, and the firer's elevation advantage (if any; D5.311), LC are treated as either AFV (i.e., armored) or unarmored targets—never as boats. OT rules apply to OT LC through their armored Target Facing(s) as if they were OT AFV. Unlike an amphibian (D16.3), being in a Water Obstacle does *not* make a LC a HD, Very Small target. A LC's down ramp does *not* make its front Target Facing unarmored.



12.601 *DAMAGE:* Each LC has a Damage Point (DP) Rating on the Wreck side of its counter. When an attack inflicts DP on a LC (as explained below), it is marked with ≥ one DP counter to indicate the total number of DP it has accumulated thus far. When that total equals the LC's DP Rating, it is immobilized; when that Rating is exceeded, the LC is destroyed (12.69). DP are also inflicted by each Blaze on a LC (12.68).

12.602 *SHOCK/IMMOBILIZATION:* A Shock, Possible Shock or Immobilization result can apply to neither a LC nor its Inherent crew [EXC: DP Immobilization; 12.601], but can apply to a LC's Passenger vehicle(s) (*their* PRC) in the normal manner if hit as per 12.65.



12.603 *SNIPER:* A dr 1 or 2 sniper attack vs a LC is resolved *only* vs its Inherent crew, and always results in a Stun [EXC: if Heavy Surf exists in the LC's hex, a dr 2 attack has no effect on its crew; 13.445]. LC Passengers are not eligible sniper targets.

12.61 *NON-ORDNANCE DIRECT FIRE:* A non-ordnance Direct Fire attack vs a LC treated as an *unarmored* target is resolved on the IFT's ★ Vehicle line, using (in addition to all other applicable FP modifications) halved FP unless the LC is Beached. If the Final IFT DR vs the LC is < the ★ Vehicle Kill #, DP equal to the difference between those two numbers are inflicted on the LC; if that DR equals that ★ Vehicle Kill #, there is no effect on the LC except possibly via a Collateral Attack vs its Vulnerable PRC; if that DR is > that ★ Vehicle Kill # there is no effect on the LC or its PRC.

A non-ordnance Direct Fire attack vs a LC treated as an *armored* target has no effect on it except possibly via a Collateral Attack vs its Vulnerable PRC.

EX: A 12 FP attack by Small-Arms/MG vs an un-Beached LCP(L) through its unarmored side Target Facing is resolved on the 6 FP column of the IFT's ★ Vehicle line, and will inflict one DP on the LC if the Final IFT DR is a 5 (6 [★ Vehicle Kill #] − 5 [DR] = 1 DP), or two DP if that DR is a 4, etc. (and a Collateral Attack can also occur vs the LC's Vulnerable PRC; 12.671). That same attack made through the LCP(L)'s armored front Target Facing would have no effect on that LC—but would be resolved Collaterally vs its CE crew as per 12.671. However, that same attack made through the LCP(L)'s armored front Target Facing from a Location with sufficient elevation advantage to lower its crew's CE DRM to < +2 would treat the LC as an unarmored target and would be resolved vs it on the IFT's ★ Vehicle line (and vs its Vulnerable PRC as per 12.671).

12.611 *FT/DC/MOL:* The use of FT/DC/MOL vs a LC/its-PRC is NA; if used vs another target in the LC's Location, they have no effect on the LC or its PRC.

12.612 *OVR:* A LC cannot be OVR; an OVR by/vs another unit in the LC's Location has no effect on the LC or its PRC.

12.613 *RESIDUAL FP:* A Residual FP attack vs a fully armored LC treats that LC as armored, while one vs a LC that is not fully armored treats it as unarmored. Otherwise, such attacks vs LC are resolved as per 12.61 as if the attack were non-ordnance Direct Fire [EXC: Residual FP is not halved vs a LC].

12.614 *MINES:* The only mines that can affect LC are A-B mines as per 14.51/14.53.

12.62 *ORDNANCE DIRECT FIRE:* A Direct Fire ordnance attack vs a LC must use the Vehicle (or Area; 12.63) Target Type or a LATW TH Table. A hit achieved using the Vehicle Target Type (or a LATW TH Table) is resolved by a TK DR. If HE was fired, one of the following will occur: if the Final TK DR vs the LC is < the Final HE TK#, DP equal to the difference between those two numbers are inflicted on the LC; if that DR equals that TK#, there is no effect on the LC except possibly via a Collateral Attack vs its Vulnerable PRC; if that DR is a Dud (C7.35) and/or > that TK#, there is no effect on the LC or its PRC. If AP-type ammo (i.e., AP/APCR/APDS, or any non-Aerial MG, 12.7 or 15mm weapon, or HEAT) was fired, one DP is inflicted if the Final TK DR is ≤ *half* of the applicable Final TK#; if that DR is > half of, but still ≤, that TK# there is no effect on the LC except possibly via a Collateral Attack vs its Vulnerable PRC; if that DR is a Dud (C7.35) and/or > that TK# there is no effect on the LC or its PRC. Ordnance cannot

target any Passenger separately from its LC (D.6). For Aerial MG/bomb attacks see 12.66.

EX: A 75* Gun firing HE on the Vehicle Target Type achieves a hit on the armored front Target Facing of an LCP(L). If the Final TK DR is a 6, one DP is inflicted on the LC; if it is a 5, two DP are inflicted, etc. (A Final TK DR of ≤ 7 can also cause a Collateral Attack as per 12.672 or 12.673.) If that same attack hits the LCP(L) on its unarmored side Target Facing, a Final TK DR of 11 will inflict one DP, while a Final DR of 10 will inflict two DP, etc.

A 75* Gun firing AP on the Vehicle Target Type achieves a hit on the armored front Target Facing of an LCP(L) at a range of 12 hexes. If the Final TK DR is ≤ 5, one DP is inflicted on the LC. If that same attack hits the LCP(L) on its unarmored side Target Facing, a Final TK DR of ≤ 4 will inflict one DP.

12.621 *MG:* If the Final TK DR of a MG hit on a LC being treated as an armored target equals the Final TK#, it causes only a Collateral Attack as per 12.62—it does not automatically Stun (D5.34) the LC.

12.63 *OBA/AREA-TARGET-TYPE:* An OBA HE attack or Area-Target-Type HE hit vs a fully armored LC treats that LC as armored and is resolved on the IFT using the applicable C1.55 DRM. If the Final IFT DR vs the LC is a KIA, DP equal to that KIA's # are inflicted on the LC; if that DR is a K/# there is no effect on the LC except possibly via a Collateral Attack vs its Vulnerable PRC; if that DR is > a K/# there is no effect on the LC or its PRC.

An OBA HE attack or Area-Target-Type HE hit vs a LC that is *not* fully armored treats that LC as unarmored, regardless of the Target Facing hit or the direction of the firer's LOS/LOF, and is resolved on the IFT's ★ Vehicle line as per 12.61 [EXC: its FP is not halved *as per 12.61*; Aerial bomb attacks treat all LC as armored (12.66)]. The use of SMOKE against a LC/its-PRC is NA (13.47).

EX: A 75* Gun firing HE using the Area Target Type achieves a hit on a fully armored LCVP. The attack is resolved vs the LC on the 6 FP column of the IFT with a −2 DRM (−1 for an OT LC, and −1 for a LC with all AF ≤ 4; C1.55), and will inflict one DP on that LC with an Original IFT DR of 4. The same hit on a partially armored LCP(L) would still be resolved on the 6 FP column, but would use the ★ Vehicle line and thus would inflict one DP on the LCP(L) with an Original IFT DR of 5.

12.64 *CH:* The Case C (C7.23) Basic TK# modifier never applies vs a LC itself. A CH vs a LC itself does *not* double that attack's FP, and results *only* in increasing by one the number of DP inflicted (even if that raises the DP inflicted from zero to one), regardless of any other effect of that attack [EXC: no DP increase occurs if a Dud (C7.35) ensues]. CH vs LC Passenger(s) are NA except for a vehicle/wreck/Gun hit as per 12.65. See also 12.679.

12.65 *HIT vs PASSENGER VEHICLE/GUN:* The following apply only to a LC that is carrying any vehicle(s)/wreck(s)/Gun(s) [EXC: a Gun being Animal-Packed] whose Target Size is 0/−1/−2. If ordnance/OBA rolls an upper-superstructure hit vs the LC [EXC: Aerial bomb Near Miss; 12.66], the latter's owner determines randomly whether the hit actually

LC DESTRUCTION TABLE[1]

ATTACK TYPE:	Non-Ordnance Direct Fire[2]	AP (Vehicle Target Type)[3]	HE (Vehicle Target Type)[4]	HE (Area Target Type; OBA)[5]	Residual FP[6]	A-B Mines[7]	CC[8]	Blaze[9]
LC TARGET FACING:								
Armored[10]								
≤ Half TK#/1KIA	- a	B cd	C cdf	D cdf	- a	-[11]	-	F
< TK#/K	- a	- cd	C cdf	D cdf	- a	-[11]	-	F
= TK#/K	- a	- cd	- cdf	- cdf	- a	-[11]	-	-
> TK#/K	- a	- -	- -	- -	- a	-[11]	-	-
Unarmored								
≤ Half ★ Veh #/TK#	A b	B de	C def	A def	A b	E g	-	F
< ★ Veh #/TK#	A b	- de	C def	A def	A b	E g	-	F
= ★ Veh #/TK#	- b	- de	- def	- def	- b	- -	-	-
> ★ Veh #/TK#	- -	- -	- -	- -	- -	- -	-	-

Effects vs LC:
-: No DP inflicted.*
A: DP inflicted = ★ Vehicle Kill # minus Final IFT DR; 12.61.*
B: One DP inflicted [EXC: none, if Dud]; 12.62.*
C: DP inflicted = Final TK# minus Final non-Dud TK DR; 12.62.*
D: DP inflicted = KIA's #; 12.63.*
E: DP inflicted = 13 (★ Vehicle #) minus Original Effects DR; 14.53.
F: Blaze occurs if ≥ two DP are inflicted by attack whose Effects DR contains Original colored dr of "1" [EXC: Blaze NA if LC itself is already Ablaze or sinks in deep water]; 12.68. Place Blaze and Pin counter on LC.
*: Increase # of DP inflicted (even if zero) by one for CH followed by non-Dud Effects DR; 12.64.

Effects vs LC PRC:
-: LC's PRC are not Vulnerable.§
a: Vulnerable: LC's CE Inherent crew, and each Passenger Gun/non-AFV-wreck/unarmored-vehicle-(and its PRC) [EXC: Animal-Packed Gun] whose Target Size is 0, −1 or −2 (12.671; 12.6712).†§
b: All of LC's PRC are Vulnerable (12.671; 12.6712) [EXC: each Passenger AFV-(and its PRC)/wreck that is *not* treated as unarmored vs that attack is Vulnerable only if that attack was made by an Aerial MG—in which case the Aerial MG's Original IFT DR, modified by −1 (or by −2 if the AFV is OT), is applied as a Final TK DR vs the AFV; 12.6711].†§‡
c: Vulnerable to hull hit: all Passengers (hit's IFT FP, and Final TK# vs any Passenger AFV, are halved [FRU]); 12.672.†§‡
d: Vulnerable to upper-superstructure hit: LC's Inherent crew, *or one* Passenger vehicle/wreck/Gun whose Target Size is 0, −1 or −2 (12.673).
e: Vulnerable to hull hit: all Passengers (12.672).†§‡
f: [EXC: bomb Near Miss causes no Collateral Attack; 12.672].
g: All PRC† are Vulnerable to 16 FP Collateral Attack (14.53) [EXC: a Passenger AFV (and its PRC) is Vulnerable only if its lowest hull AF is "0", in which case it is treated as unarmored]. Use 16-FP column's ★ Vehicle line for each Passenger vehicle or Gun thusly attacked.‡
§: Each non-Aerial attack conducted as non-ordnance Direct Fire, and each non-Aerial ordnance hull hit that used the Vehicle Target Type, vs the front Target Facing of a LC whose ramp is down treats that LC's Vehicle and Infantry Stacks [EXC: BU PRC of Passenger AFV; all ¾" counters beneath the topmost AFV (or AFV wreck) in the Vehicle Stack] as Vulnerable as if that Target Facing were unarmored, *provided* that attack emanated from within the LC's VCA (12.674).†‡
†: If LC's PP capacity is ≥ 40, use Random Selection as per 12.678 to determine the Vulnerable Passenger(s).
‡: LC's Infantry-Passengers (only) may claim TEM of any AFV or non-burning wreck aboard that LC, *if* that AFV/wreck is also subject to that Collateral Attack (12.677).

Notes:
[1]: When total DP on LC equal or exceed its DP rating, LC is immobilized or destroyed respectively; 12.601. A destroyed (12.69) LC sinks with no survivors if in deep water; if in shallow water it becomes a wreck (and Fast Aground if un-Beached or Aground when destroyed).
[2]: FP is halved if LC is not Beached (12.61). FT/DC/MOL/OVR has no effect vs LC (12.611). Aerial-MG attack treats all LC as unarmored (12.66).
[3]: Including APCR/APDS, all non-Aerial MG, 12.7 and 15mm, and HEAT (even if using LATW TH Table); 12.62.
[4]: Bomb hit vs any LC treats it as fully armored, with "0" Aerial AF; TK Cases A (+1 to Basic TK#) and B (+1 to Basic TK# if LC is CT, or +2 if OT) apply; (12.66). Near Miss is resolved as hull hit, with bomb's Final TK# halved.
[5]: If LC is not fully armored it is treated as unarmored (12.63) [EXC: bomb hit treats all LC as fully armored; 12.66].
[6]: If LC is not fully armored it is treated as unarmored; 12.613.
[7]: Attacks LC on ★ Vehicle line of 36-FP column, regardless of its armor; 14.53.
[8]: CC by/vs a LC/its-PRC is NA; 12.7.
[9]: Each unpinned Blaze on a LC reduces its MP allotment by one and, in each AFPh, inflicts one DP; 12.68.
[10]: Target Facing is treated as unarmored if firer's elevation advantage is > range; 12.6.
[11]: All LC are considered unarmored vs A-B mines; 14.53.

occurred vs the LC *or* instead vs *one* such vehicle, wreck or Gun (even one hooked up to a vehicle) aboard that LC. If an ordnance attack's Final TH DR vs a LC is one > the number needed for a hit but that DR's Original colored dr is < its Original white dr, *one* such vehicle, wreck or Gun (chosen randomly by the LC's owner) on that LC *is* hit—provided that shot does not hit another vehicle Overstacked in the LC's hex (A5.132). Any hit directly vs a Passenger vehicle is considered a turret/upper-superstructure hit; and, vs the vehicle, wreck or Gun that was hit, is resolved as if that vehicle or Gun were in an Open Ground land hex (a Gun that was hit is treated as an unarmored vehicle [EXC: an Immobilization result is treated as Gun Malfunction instead]; any Gunshield is ignored).

EX: An LCT(4) carrying a U.S. M5A1 light tank (Target Size "+1"), 2½-ton truck (Target Size "0") and M1918 155mm howitzer (Target Size "−1") is hit by ordnance (or attacked by OBA) that rolls an upper-superstructure hit. A subsequent dr is therefore made by the LCT's owner, who assigns the numbers "1-2" to the truck, "3-4" to the Gun, and "5-6" to the LC. The tank is ineligible because its Target Size is not 0/−1/−2.

If the ordnance TH DR vs the LCT misses by one while rolling an upper-superstructure "hit", the truck *or* Gun is hit anyway (assuming the LC itself is not Overstacked in its hex). The LC's owner then makes a subsequent dr to find which one was in fact hit, assigning "1-3" to the truck and "4-6" to the Gun.



12.66 *AERIAL MG/BOMBS:* An aircraft MG attack vs any LC *always* treats that LC as unarmored (regardless of Target-Facing/AF), and is resolved vs it as per 12.61. An aircraft *bomb* attack vs any LC always treats that LC as fully armored, and is resolved vs it as per 12.62 or 12.63 according to the Target Type used for the attack. If the Vehicle Target Type was used, assume the LC's Aerial AF to be "0" (regardless of Target Facing), and apply TK Cases A (C7.21) and B (C7.22). A Vehicle-Target-Type bomb attack that achieves a Near Miss (E7.421) vs a LC is also resolved as a *hull* hit (regardless of the TH DR) vs it, using *half* of the bomb's Final TK#. The use of Napalm (17.4) vs a LC/its-PRC is NA.

12.67 *COLLATERAL ATTACKS:* Collateral Attacks (A.14) vs LC PRC apply in the normal manner except as stated otherwise. See also 12.111, 12.123 and 12.13.

12.671 *NON-ORDNANCE DIRECT FIRE:* When a LC is attacked as an *armored* target by a non-ordnance Direct Fire attack (12.61), the only PRC aboard that LC which are Vulnerable to the resulting Collateral Attack are its Inherent crew (which receives a +2 CE DRM) and all Guns-(12.675)/non-AFV-wrecks/unarmored-vehicles-(and their PRC) [EXC: a Gun being Animal-Packed] whose Target Size is 0/−1/−2.

When a LC is attacked as an *unarmored* target by non-ordnance Direct Fire whose Final IFT DR vs that LC is ≤ the applicable ★ Vehicle Kill #, all PRC aboard that LC are Vulnerable to (but the LC's Inherent crew can claim no CE benefit vs) any resulting Collateral Attack [EXC: each AFV-(and *its* BU PRC)/wreck Passenger that is *not* treated as unarmored vs that attack is Vulnerable only if the attack was made by an Aerial MG (12.6711); see also 12.678].

12.6711 *AERIAL MG vs AFV:* When a LC carrying an AFV is attacked by an Aerial MG (12.66), that AFV (and its Vulnerable PRC, if the AFV is OT; 12.676) can be hit Collaterally. The MG's Original IFT DR, modified by −1 (or by −2 if the AFV is OT), is applied as a Final TK DR vs the AFV.

12.6712 *RESIDUAL FP & MINES:* The Collateral effects of a Residual-FP attack vs a LC are resolved as per 12.671 as if the attack were being made by non-ordnance Direct Fire. For A-B mines vs LC PRC see 14.53.

12.672 *ORDNANCE/OBA HULL HIT:* An ordnance/OBA hull hit on a LC (12.62-.63) can directly affect only the LC/its-Vulnerable-Passenger(s); i.e., its Inherent crew, despite being non-BU, is not considered Vulnerable to any Collateral Attack caused by that hit. [EXC: An Aerial bomb Near Miss (E7.421) vs a LC has *no* Collateral effect on its Passengers.]

If the non-Dud Final Effects DR of an ordnance/OBA hull hit [EXC: Aerial bomb Near Miss] on a LC is ≤ the Final TK# (12.62), or ≤ a K/# result or the ★ Vehicle Kill # (12.63), all of its Vehicle and Infantry Stacks are Vulnerable to the resulting Collateral Attack [EXC: see 12.678]. The Collateral Attack is resolved on the IFT/pertinent-TK-Table using the original attack's Original Effects DR and the same non-CH (12.679) IFT-FP/Final-TK# as applicable to each Collateral target [EXC: if the LC is treated as an *armored* target by that hull hit, its IFT FP and Final TK# are halved (FRU) for Collateral Attack purposes].

Such a Collateral Attack vs a Passenger AFV is considered a hull hit on it and, if resulting from an OBA/Area-Target-Type HE attack, also uses the C1.55 DRM as applicable.

EX: An LCVP carrying two Jeeps and an Infantry-Passenger HS receives a hull hit on its side Target Facing from a 75* Gun that fired HE at a range of 12 hexes using the Vehicle Target Type. If the Gun's Final TK DR is ≤ 7 (and assuming in all cases below that the attack does not sink the LC in deep water; 12.69), the HS will undergo a six-FP Collateral Attack (12 [75mm HE FP] ÷ 2 [ordnance hull-hit effect vs armored LC's PRC; 12.672] = 6 FP) and both Jeeps will undergo a Collateral Attack using a HE Final (C7.342) TK# of 6 (12 [75mm HE Final TK# vs unarmored target] ÷ 2 [ordnance hull-hit effect vs armored LC's PRC; 12.672] = 6).

If the Gun had instead fired AP and rolled a Final TK DR of ≤ 10, its Collateral Attack would have been resolved vs the HS using one FP (2 [75mm AP HE-Equivalency] ÷ 2 [ordnance hull-hit effect vs armored LC's PRC; 12.672] = 1), and vs the Jeeps using a Final TK# of 5 ([9 [75mm AP Basic TK# vs unarmored target] + 0 [Cases A-D TK modifications; C7.2]] ÷ 2 [ordnance hull-hit effect vs armored LC's PRC; 12.672] = 4½ FRU = 5).

If the Gun had instead used the Area Target Type and rolled ≤ a K/# vs the LC, its Collateral Attack would have been resolved on the two-FP column of the IFT (6 [75mm Area-Target-Type HE FP] ÷ 2 [ordnance hull-hit effect vs armored LC's PRC; 12.672] = 3 FP), using the ★ Vehicle line vs the Jeeps.

If the hull hit on the LCVP had instead been achieved by a 70 + mm OBA HE Concentration whose Final IFT DR was ≤ a K/#, the HS and Jeeps would all have been subject to a six-FP Collateral Attack (12 [70+mm HE Concentration FP] ÷ 2 [OBA hull-hit effect vs armored LC's PRC; 12.672] = 6 FP), again using the ★ Vehicle line vs the Jeeps.

EX: If the LCVP in the above example were transporting a Carrier instead of the two Jeeps, the following differences in the Collateral Attack resolution would occur. The HE hit using the Vehicle Target Type would be resolved vs the Carrier using a Final TK# of 4 ([7 [75mm HE Basic TK# vs armored target] + 0 [Carrier's side hull AF] + 0 [Cases A-D TK modifications; C7.2]] ÷ 2 [ordnance hull-hit effect vs armored LC's PRC; 12.672] = 3½ FRU = 4). The AP hit would be resolved vs the Carrier using a Final TK# of 5 ([10 [75* AP Basic TK# vs armored target] + 0 [Carrier's side hull AF] + 0 [Cases A-D TK modifications; C7.2]] ÷ 2 [ordnance hull-hit effect vs armored LC's PRC; 12.672] = 5). The HE hit using the Area Target Type would be resolved vs the Carrier on the two-FP column of the IFT, with a −2 DRM (−1 for the Carrier's having all AF ≤ 4, plus −1 for its being an OT AFV). The HE Concentration would be resolved vs the Carrier on the IFT's six-FP column using the same −2 DRM.

12.673 *ORDNANCE/OBA TURRET HIT:* An ordnance/OBA upper-superstructure hit on a LC itself (as opposed to a hit as per 12.65 on a Passenger vehicle, wreck or Gun) can Collaterally affect only the LC's Inherent crew; its Passengers are not considered Vulnerable to such an attack. This Collateral Attack vs its crew is resolved using the original attack's non-CH (12.679) IFT FP and Original Effects DR modified by the crew's CE DRM (if applicable). For the Collateral effects of a hit achieved as per 12.65 on a Passenger vehicle/Gun, see 12.675-.676.



12.674 *RAMP:* Vs the Collateral effects of a non-Aerial attack conducted as per 12.61/12.62 from within the VCA of a LC whose ramp is down, all of that LC's Vehicle and Infantry Stacks [EXC: the BU PRC of Passenger AFV; all ⅝" counters *beneath* the top-most AFV (or AFV wreck) in the Vehicle Stack] are considered Vulnerable as if that LC's front Target Facing were unarmored. No CE benefits ever apply to a thusly Vulnerable Collateral target [EXC: the PRC of an AFV not normally allowed to be BU (e.g., a Carrier's Inherent HS or crew) *may* claim CE benefits vs such a Collateral Attack]. Note, however, that a lowered ramp does not prevent the *LC's* Inherent crew from claiming CE benefits. An ordnance attack must use the Vehicle Target Type (or a LATW TH Table) *and* achieve a hull hit in order to claim the Collateral benefits of a lowered ramp.

EX: An LCT(4) whose Vehicle Stack comprises (from top to bottom) a tank, a Carrier, and a truck (carrying its own Passengers and towing a Gun), and whose Infantry Stack comprises three squads, a crew and a Pushed Gun, Beaches and the tank unloads, ending the LCT's MPh. Its ramp is now down (12.41), and an enemy MG at Level 0 fires during the DFPh at the LCT from within its VCA. The LC itself is still treated as an armored target (12.6), and its Inherent crew will receive a +2 CE DRM vs the ensuing Collateral Attack—but the lowered ramp leaves the Carrier and Infantry Stack Vulnerable. However, vs the Collateral Attack, the Carrier's Inherent crew or HS (12.676) will receive a +2 CE DRM, while the Infantry-Passengers (but not the Pushed Gun) will receive a +1 TEM for the Carrier (12.677). Vs the truck (and its Passengers and towed Gun), the Collateral Attack will have no effect at all.

12.675 *vs GUN:* A Collateral Attack vs a Passenger Gun [EXC: one hooked up to a vehicle; C10.1] is resolved as if the Gun were an unarmored vehicle [EXC: an Immobilization result is treated as Gun Malfunction instead; a Gun being Animal-Packed is eliminated if its Mule is eliminated or Casualty-Reduced]. A hit achieved as per 12.65 on a Passenger Gun is resolved *Collaterally* only vs its possessing Infantry-Passenger—or, if the Gun is hooked up, vs its towing vehicle (and *its* Vulnerable PRC, if any; 12.676). If a hooked-up Gun is eliminated by a hit achieved as per 12.65, its towing vehicle is automatically immobilized (unless destroyed) by that Collateral Attack. A Gunshield has no effect in a LC.

12.676 *vs PASSENGER-VEHICLE PRC:* The PRC of a vehicle aboard a LC are Vulnerable to each Collateral Attack their vehicle is subject to, provided they are not in an AFV [EXC: OT AFV PRC are Vulnerable to an Aerial MG attack vs that AFV; see also 12.674] and that Collateral Attack does not destroy their vehicle. A hit achieved as per 12.65 on a vehicle aboard a LC can be resolved Collaterally only vs *that* vehicle's Vulnerable PRC. The Vulnerable PRC of a vehicle aboard a LC never receive CE benefits [EXC: OT AFV PRC attacked by an Aerial MG; see also 12.674].

12.677 *AFV/WRECK TEM:* When subjected to a Collateral Attack, a LC's

Infantry-Passenger(s) (only) may claim the TEM of any AFV or non-burning wreck aboard that LC, but only if that AFV/wreck is also subject to that Collateral Attack.

12.678 *PP CAPACITY ≥ 40:* Whenever a LC with a PP capacity of ≥ 40 PP is attacked [EXC: any attack that achieves an upper-superstructure hit as per 12.65, or that can claim the benefits of a down ramp as per 12.674], the resulting Collateral Attack (if any) is resolved only against the Vulnerable Passenger(s) chosen by Random Selection. Random Selection is used twice (by the LC's owner): once for the Infantry Stack and again for the Vehicle Stack. However, from the latter only one AFV or AFV wreck (plus any number of non-AFV/non-AFV-wrecks) can thusly be made Vulnerable to an ordnance attack that used the Vehicle Target Type (or a LATW TH Table); if Random Selection chooses ≥ two AFV/AFV-wrecks, the LC's owner must select one of them randomly. All Passengers not Vulnerable to the original attack (e.g., Small Arms vs Passenger AFV) are excluded from Random Selection.

EX: An un-Beached LCT(4) carrying three AFV and two trucks in its Vehicle Stack, and three squads in its Infantry Stack, receives a hull hit from a Gun using the Vehicle Target Type which causes a Collateral Attack. The LC's owner rolls Random Selection for the squads, and then again for the AFV and trucks, to find which of them will be considered Vulnerable to the Collateral Attack. If the Random Selection DR for the vehicles chooses ≥ two of the AFV, the LC's owner must make another dr to randomly select just one of them; the other two AFV (as well as their PRC; 12.676) will *not* be Vulnerable to that Collateral Attack.

If the original attack had used the Area Target Type (or had been caused by OBA), the same procedures would apply except that all vehicles chosen by the Random Selection DR would be Vulnerable.

In both cases, the squads might also be able to claim the TEM of an AFV; see 12.677.

If the original attack had been made using Small-Arms/IFE/non-ordnance-MG, Random Selection for the Vehicle Stack would include only the two trucks.

12.679 *CH:* A CH vs a LC itself is resolved Collaterally as a non-CH; i.e., using its non-CH IFT-FP/TK# as otherwise applicable.



12.68 *BLAZE:* Whenever a LC is struck by an attack that inflicts ≥ *two* DP on it and whose Effects DR contains an Original colored dr of "1", that LC is set Ablaze [EXC: no Blaze occurs if the LC itself is already Ablaze, nor if that attack sinks the LC in deep water]. A LC cannot be set Ablaze in any other manner. A vehicle aboard a LC can be turned into a burning wreck in the normal manner for whatever type of attack strikes it.

Whenever a LC or a Passenger vehicle/wreck aboard a LC becomes Ablaze, a Blaze counter is placed on that LC (and, for a Passenger vehicle/wreck set Ablaze while in a Cloaking Box, a "duplicate" Blaze counter is placed on that wreck). When placed on the LC, that Blaze is also marked with a Pin counter (which is removed at the end of the next CCPh). When a Passenger burning wreck is removed from its Cloaking Box and placed onboard on its LC, its "duplicate" Blaze counter is removed from the LC; if the latter is pinned, that Pin counter is placed on the wreck's Blaze—otherwise it is not marked with a Pin counter. Each unpinned Blaze on a LC reduces that LC's MP allotment by one and, in the AFPh of each Player Turn, inflicts one DP on it. For other Blaze effects see 12.43-.44 and 12.84.

No Blaze aboard a non-immobilized, non-Beached LC has any smoke effect whatsoever; i.e., neither its Inherent, nor any Drifting, smoke is considered to exist. When a LC carrying any Blaze(s) becomes Beached/immobilized, or when the first Blaze appears on a Beached/immobilized LC, the Inherent-smoke effects of its Blaze(s) come into existence immediately (and any drifting smoke would appear in the following AFPh). Smoke drifting from > one Blaze aboard the same LC is indicated on the board by using *one* gray Smoke counter per hex.

EX: An LCM(3) carrying two unpinned Wreck Blazes has its MP allotment reduced by two, and receives two DP in the AFPh of each Player Turn. If instead the LC itself were Ablaze and was also carrying one Wreck Blaze, the same effects would apply. However, if in either case the LC is neither Beached nor immobilized, LOS to/through/within/out-of (and movement into) its hex is unaffected by those Blazes nor do they create any Drifting smoke.

12.69 *ELIMINATION:* A LC is destroyed when the total number of DP inflicted on it exceeds its DP Rating. If this occurs in deep water, the LC sinks—i.e., it and everything it is carrying are immediately eliminated. A LC destroyed in shallow water is flipped to its Wreck side; if un-Beached or Aground it is now considered to be Fast Aground (and thus Beached), and if Beached across a hexside the wreck remains thusly Beached.

12.691 *PRC SURVIVAL:* LC PRC can survive only if their LC is destroyed in shallow water, in which case normal Survival rules (D5.6) apply to the LC's Inherent crew [EXC: the *total* Stun DRM (if any; 12.111) applies to its Survival DR].

LC *Passengers* do not roll for Survival when their LC is destroyed in shallow water. Instead, they remain LC Passengers and are subject to the normal Collateral effects (12.67-.678 as applicable) of the attack (if any) that destroyed their LC. Those not eliminated by Collateral Attack are placed atop the LC wreck, and therefore are treated just as if their LC were Beached but not destroyed [EXC: all surviving vehicles (other than motorcycles) aboard that LC wreck are considered Bogged; all unpossessed SW aboard it are eliminated unless being carried by another Passenger vehicle].



12.7 *CC:* CC attacks by/vs a LC/its-PRC are NA.

12.8 *MISCELLANEOUS*

12.81 *HINDRANCE/TEM:* Only a *Beached* LC can provide a +1 TEM/LOS-Hindrance as per D9.3-.4, treating the LC as if it were an AFV. A Passenger vehicle aboard a LC provides no such Hindrance/TEM [EXC: TEM as per 12.677].

12.82 *REMOVAL:* The armament of a LC cannot be Removed.



12.83 *WRECK EQUIVALENCE:* A LC wreck is considered equivalent to an undestroyed LC in all respects [EXC: a LC wreck cannot be Inherently crewed (and thus is Immobile and cannot fire), nor can it be further destroyed in order to gain more VP; a LC wreck is always Beached (see also 13.4422); a non-burning LC wreck may be Scrounged as if it were an AFV wreck].

EX: A LC destroyed (but not sunk) while its ramp is down becomes a wrecked LC whose ramp is down. A LC destroyed (but not sunk) while its ramp is up becomes a wrecked LC whose ramp is up, but the ramp may still be lowered as per 12.41 to allow any Passenger aboard to unload. No enemy unit may enter a Location occupied by a wrecked LC. When a LC that is itself Ablaze becomes a wreck, that Blaze counter (in its present pinned or unpinned state; 12.68) remains on it. All Passengers aboard a LC wreck must still attempt to unload as soon as possible during a Seaborne Assault (14.231). These are just a few examples of LC wreck equivalency.



12.84 *VP:* Each LC eliminated is worth one VP plus a one-VP bonus for each of the following: ≥ one still-functioning MA weapon; being fully armored; its Inherent crew did not survive; each multiple of 50PP (FRU) in its Passenger capacity. No Casualty/Exit VP may be claimed for a LC (or for its PRC) that exits play carrying a Blaze counter(s).

EX: The maximum Casualty VP value of an LCP(L) is 4, that of an LCVP is 5, and that of an LCT(4) is 15.

12.9 *DYO:* The H1.4 Vehicle Availability DR is used to determine the available type(s) of LC. The side conducting a Seaborne Assault (14.1) may add to its OB as many LC (of each available type, and including one Inherent LC crew for each) as it wishes, and pays *no* purchase points for them; however, see also 14.21. LC are recorded in the Vehicle section of the DYO Purchase Roster. If the H1.4 DR is an Original 12, all of that side's LC are considered to have Inexperienced crews (12.113).

13. BEACHES

13.1 *OVERLAYS:* Any overlay whose ID is prefixed by "Be" is a Beach overlay, and each of its hexes is a Beach hex. Any overlay whose ID is prefixed by "OC" is an OCEAN overlay, and its hexes are Ocean, Lake or River hexes (see 13.12). Cutting out and positioning these overlays follows the principles given in G.9-.9D except as stated otherwise herein. Beach and OCEAN overlays use a unique grid-coordinate system: each Beach-overlay hex has a three-digit, and each OCEAN-overlay hex has a four-digit, coordinate; when such an overlay hex is referred to, its printed coordinate—not the coordinate of the hex (if any) it covers—will always be specified. Each Beach overlay will generally lie partially on and partially off of its setup mapboard; after it is set up, the pertinent OCEAN overlay will be positioned part on and part off that Beach overlay, with the end result that the Beach overlay partly overlaps the mapboard and is partly overlapped by the OCEAN overlay.[28] Unless stated otherwise, all Beach and OCEAN overlay hexes are playable even if they lie beyond the mapboard edge(s).

13.11 *Be7:* Overlay Be7 is used on board 7 or 8 in conjunction with an OCEAN overlay to depict the mouth of a river. The Water Obstacle hexes of this overlay are always River (B21.12; see also 13.12 below). A river cannot be flooded (B21.122) when Overlay Be7 is in play (hence the river hexes of that overlay are always at Level −1).

13.12 *OCEAN/LAKE/RIVER:* An OCEAN overlay may be used to represent part of a lake or wide river instead of ocean. For rules purposes, the term "Ocean" refers only to that particular type of Water Obstacle, while "OCEAN" is defined to mean "Ocean, Lake or River (as applicable to the scenario)". OCEAN rules apply to *mapboard* (and Overlay Be7) river hexes *only if* ≥ one OCEAN-overlay hexside covers ≥ one of those mapboard-river hexsides. An OCEAN river (i.e., an OCEAN overlay defined as a river, plus all mapboard/Overlay-Be7 river hexes treated as OCEAN) still uses river current as per B21.121.

EX: Board 7 is in play. Even if an OCEAN overlay is also in play (e.g., being used in conjunction with Overlay Be7), as long as no OCEAN-overlay hexside covers a board-7 river hexside, normal Chapter-B River rules are in effect for that board-7 (and Overlay-Be7) river; thus if the river is defined as fordable/shallow, Fording—not Wading (13.42)—rules are in effect (and LC cannot run Aground as per 12.21) in those river hexes. However, if any OCEAN-overlay hexside does cover a board-7 river hexside (e.g., using OCEAN overlays to cover one side of the river so that the other side in effect becomes an uneven shoreline), then those river hexes would be considered OCEAN hexes, and the rules for Wading and running Aground would apply in *all* shallow-OCEAN hexes.

13.13 *INHERENT TERRAIN:* Mapboard- (but not counter-)depicted Inherent Terrain (B.6) is negated in that portion of its hex *covered over* by any part of a Beach/OCEAN overlay [EXC: Bypass is NA; 13.81].

EX: LOS drawn *along* a hexside common to a Beach hex and a dense-jungle hex (2.2) is not blocked by that jungle, since that part of the dense-jungle hex covered by the Beach overlay is no longer Inherent Terrain. However, any SMOKE/Wreck/AFV/Rubble counter in that jungle hex would still Hinder that LOS [EXC: as per D9.4], and Bypass along that hexside would be NA.

13.14 *EFFLUENT:* Any overlay whose ID is prefixed by "Ef" is an Effluent overlay, and each of its hexes with blue stream-like artwork is an Effluent hex. When cutting out an Effluent overlay, do so just *inside* of its exterior hexsides (i.e., as per F12.1). An Effluent overlay represents the water from a stream flowing across the beach; therefore, each Effluent hex is treated as a Hard-Sand (13.3) Beach hex in which Entrenchments are NA.[29] An Effluent hex is unaffected by stream depth. For LOS/LOF purposes, each hexside common to both a stream hex and an Effluent hex is considered a stream hexside as per the last sentence of G.1 (i.e., as if that Effluent "end-hex" too were a stream hex). Frigid-water effects do not apply in an Effluent hex. A frozen Effluent hex is Ice that cannot collapse.

13.15 *ISLAND:* There are no Island overlays per se, but some scenarios will use land (e.g., woods, orchard, etc.) overlays as Islands. Islands have a bearing on rules 13.2, 13.41, 13.431, 13.442, 13.444 and 14.251.

13.2 *BEACH ELEVATION & SLOPE:* Non-Beach land hexes that are not part of an Island are referred to as *Hinterland* hexes when ≥ one Beach/OCEAN overlay is in use. Each hexside common to both a Beach hex and a Hinterland hex is termed a *Beach-Hinterland* hexside. Each hexside common to both an OCEAN hex and a Beach hex is termed a *Beach-OCEAN* hexside. SSR will define the Slope of the Beach as Slight, Moderate or Steep, which will affect LOS, MF/MP costs and TEM along/across Beach-OCEAN/Beach-Hinterland hexsides and also determine the number of shallow-OCEAN hexes (13.4).

SLIGHT SLOPE Shallow:3

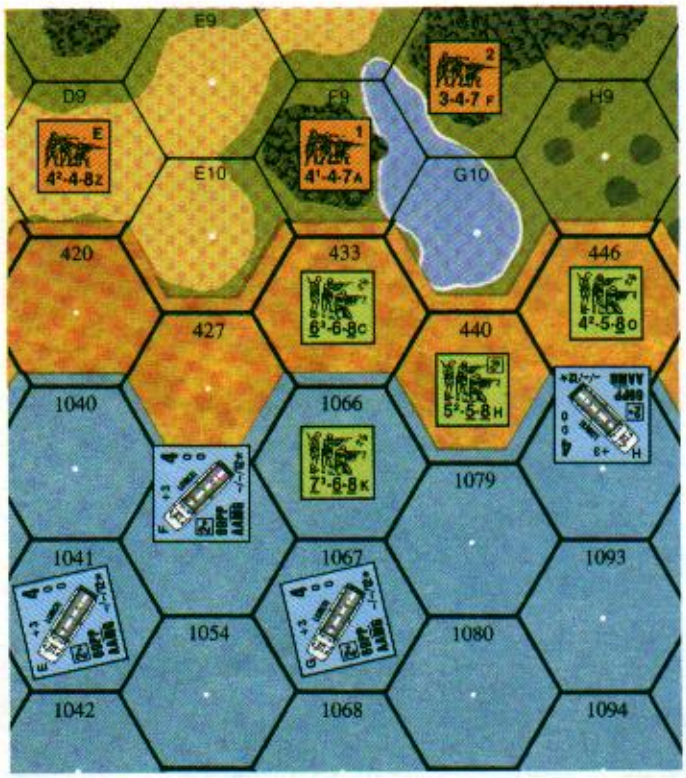
13.21 *SLIGHT:* A Slightly Sloped Beach hex is Level −1 terrain. However, its Beach-Hinterland hexsides do *not* form a Crest Line. Therefore, all LOS along/across, as well as all types of movement across, ≥ one such Beach-Hinterland hexside treats all Beach (and OCEAN; 13.4) hexes as being at Level 0—as do all activities possibly affected/prohibited by relative elevations (e.g., A9.22, C2.6, C7.22, C13.61, D9.4, etc.).

MODERATE SLOPE Shallow:2

13.22 *MODERATE:* A Moderately Sloped Beach hex is treated as per 13.21 [EXC: all LOS along/across, as well as all types of movement across, ≥ one such Beach-Hinterland hexside treats all Beach and OCEAN hexes as Level 0 Deir (F4.) hexes, with all Beach-Hinterland hexsides acting as the deir's Lip].

STEEP SLOPE Shallow:1

13.23 *STEEP:* A Steeply Sloped Beach hex is Level −1 terrain, and each of its Beach-Hinterland hexsides is treated as a Crest Line joining Levels 0 and −1. Infantry in a Steeply Sloped Beach hex that contains ≥ one Beach-Hinterland hexside may gain Crest status as if they were IN a gully, but only along the Beach-Hinterland hexside(s) of their hex; each of those Beach-Hinterland hexsides is treated as if it were a non-Depression hexside of that "gully" hex, and all standard Crest-status rules (B20.9-.98) apply unchanged [EXC: such Crest Infantry may use any type of SW].



EX: Assume that PTO Terrain is not in effect. If the beach is Slightly Sloped, all Japanese units have a LOS to all U.S. units (and vice-versa), and all U.S. units have a LOS to each other. The 4-4-8 and 4-4-7 have a LOS to all Beach and OCEAN hexes. An attack by the 4-4-7 vs any U.S. squad/LC (or vice-versa) will receive no Hindrance or terrain modifier. The 4-5-8 would expend one MF to enter H9.

If the beach is Moderately Sloped, all the same LOS exist. However, if the 4-4-8 or the 3-4-7 fires at any U.S. squad, or if the 4-4-7 fires at the 5-5-8 or the 4-5-8, that target will receive a +1 deir TEM. If the 4-5-8 were in Melee and the 6-6-8 fired at its hex, it would receive deir TEM. Hidden ordnance in D8 that fires at one of the LC will treat it as a HD target, but hidden ordnance in F9 would treat only LC "E" and "H" as HD. The 4-5-8 would still expend one MF to enter H9.

If the beach is Steeply Sloped, the 4-4-8's LOS to U.S. units is limited to LC "E", "F" and "G", and the 4-4-7 has a LOS to all U.S. units except the 4-5-8 and LC "H". Neither the 3-4-7 nor any hidden unit in D8 has a LOS to any U.S. unit. However, the 6-6-8, 5-5-8 and 4-5-8 could gain Crest status along the Beach-Hinterland hexside(s) of the hex each occupies, in which case they would appear as entrenched to the Japanese squads [EXC: the 6-6-8 would not be entrenched vs the 4-4-7; B20.92]. The 6-6-8 and 4-5-8 have a LOS to each other regardless of whether one, both or neither of them is in Crest status. The 4-5-8 would expend two MF to enter H9, since it would be crossing a Crest Line to a higher elevation.

13.24 *CLIFFS:* If a Beach-Hinterland hexside is defined as a cliff hexside, the Beach hex common to that hexside is treated as being at Level −1 for *all* purposes and normal cliff effects apply to it (as well as across that hexside).

13.3 *SAND:* Each Beach hex is Sand (F7.) that is either Hard or Soft. A Beach hex is considered Hard Sand if it contains a Beach-OCEAN hexside and is *not* Steeply Sloped. In addition, *all* Beach hexes are Hard if EC currently are Wet, Mud or Snow. Hard Sand is treated as per rules Section F7 but as if EC were Wet or Mud. All sand that is not Hard is considered Soft. Soft Sand also uses the rules of Section F7, but ignoring the exceptions given therein for Wet or Mud EC. See also 13.32.

EX: Infantry expend two MF to enter Soft Sand or one MF to enter Hard Sand, while a full-tracked vehicle would expend three or two MP respectively (re F7.3). A −1 DRM applies to a Bog DR caused by Hard Sand (re F7.31). An ordnance or OBA attack vs an unarmored target in Hard Sand does not have its FP halved on the IFT (re F7.4). Emplacement and Foxhole TEM are not halved in Hard Sand (re F7.41 and F7.42).

13.31 *SANDBARS:* A Sand/Dune overlay that is partially or wholly surrounded by (i.e., that lies adjacent to) ≥ one OCEAN hex is considered the equivalent of a Beach overlay (a Dune would be considered Low, and its Dune Crest would still exist). However, in DYO scenarios the number of hexes comprising it does not change due to Tide (see 13.97).

BOG DR ≥ 12

13.32 *SAND BOG:* F7.31-.311 apply for Bog purposes in sand [EXC: no Sand Bog DR is required for being in a non-sand Open Ground hex Accessible to a Beach hex]. See also 13.4223.

13.4 *SHALLOW/DEEP WATER:* An OCEAN hex is Level −1 Open Ground (but see also 13.21-.22), and is either Deep or Shallow water depending on the Beach's Slope and proximity. An OCEAN hex is shallow *only* if it is within three hexes of a Slightly Sloped Beach hex, or is within two hexes of a Moderately Sloped Beach hex, or is adjacent to a Steeply Sloped Beach hex [EXC: see 13.43]. A shallow-OCEAN hex is not a land hex, but is *not considered a Water Obstacle to Infantry, cavalry, horses, vehicles [EXC: boats and LC], rubble, and A-T mines (14.53).* A deep OCEAN Location is a Water Obstacle.

13.401 *WATERCRAFT & AMPHIBIANS:* A Watercraft is defined as any LC, boat or amphibian. An amphibian is defined as any vehicle having a printed amphibious-MP superscript [EXC: a DD tank is an amphibian only while its screens are erect; D16.1].

13.41 *NON-BEACH SHORELINE:* Each hexside common to both an OCEAN hex and a non-Beach land hex forms a Crest Line as per B21.2, and is referred to as either an *OCEAN-Hinterland* hexside or an *OCEAN-Island* hexside depending on the defined status of that land hex.

13.42 *WADING:* The pertinent rules for units allowed to move in water apply unchanged except as stated otherwise. A unit [EXC: LC; boat; any PRC *not* in the act of (un)loading; see also 13.492] that enters/occupies a shallow-OCEAN (including a Submerged-reef; 13.431) Location is said to be Wading. Wading—not Fording—rules apply in shallow-OCEAN.[30] *A Wading unit is treated as being in a shallow stream (but not in/IN a Depression) except as stated otherwise below.*

13.421 *INFANTRY/CAVALRY:* HE (and DC) FP is halved vs Wading Infantry, Cavalry and horses, in addition to all other modifications of that FP [EXC: CH]. Wading Infantry/Cavalry may not form multi-hex FG, and their Small-Arms/LMG attacks are halved as Area Fire. (They also cannot conduct CC; 13.495.) A Wading SMC may neither direct nor modify any type of attack. Wading Infantry/Cavalry are immune to PTC, LLMC, LLTC and booby-trap attacks, and are not subject to Pin/Heat-of-Battle results. Wading Infantry/Cavalry that suffer a break/Step-Reduction result for *any* reason always suffer a Casualty Reduction result instead. Broken Infantry may rout into a shallow-OCEAN Location only to avoid Failure-to-Rout elimination, or to load onto a LC/amphibian during a Seaborne Evacuation (14.41). If River heavy current (B21.121) is in effect in OCEAN hexes, Infantry/Cavalry cannot Wade upriver. If Heavy Surf is in effect, see also 13.443, 13.445 and 13.447. For a Seaborne Assault/Evacuation see also 14.32.

13.4211 *SW/GUNS:* No SW/non-vehicular-Gun may be fired, (un)dismantled, (un)Packed or (un)Limbered by Infantry in a shallow-OCEAN Location [EXC: such Infantry may fire LMG (as Area Fire; 13.421)]. Each unpossessed SW/non-vehicular-Gun in a shallow-OCEAN Location is eliminated unless on some form of conveyance.

13.4212 *CONCEALMENT GAIN:* Infantry in shallow OCEAN during a daytime scenario may not make a Concealment dr (nor may any ⅝" counter, since OCEAN is not Concealment Terrain). However, this does not prevent "?" gain at night as per E1.32.

13.422 *VEHICLES:* The COT of a shallow-OCEAN Location is one land (not amphibious) MP for a Wading vehicle that is Waterproofed (13.4221), or two land MP for a Wading vehicle that is not Waterproofed. A motorcycle being Ridden cannot enter a shallow-OCEAN Location. Watercraft do not expend an extra MP to cross a Beach-OCEAN (or OCEAN-Hinterland) hexside even if it is an all-water hexside (re B21.13). *All ordnance TH attempts vs a Wading vehicle receive an extra Target-Based +2 TH DRM.*

EX: See the 13.23 illustration. A Wading tank in hex 1080 that enters hex 1079 would expend three MP to do so if it is Waterproofed (2 [fully-tracked vehicle entering shallow stream] + 1 [Waterproofed-vehicle Wading COT] = 3 MP), or four MP if it is not Waterproofed. If it were a truck instead, it would expend seven or eight MP respectively to make that move.

13.4221 *WATERPROOFING:* Amphibians are always considered Waterproofed [EXC: a DD tank (D16.1) with *dropped* screens is considered Waterproofed only if it had entered play via a deep-OCEAN Location (even if in a LC) and with its screens erect]. Other vehicles may be Waterproofed by SSR or by DYO purchase (13.94); note, however, that Waterproofing is irrelevant to boats (E5.) and LC, since they can never be Wading vehicles. A Waterproofed vehicle is exempt from Swamping [EXC: in Heavy Surf; 13.441], and is sometimes less prone to Bog when exiting a deep stream (D8.2). The TCA of a turreted, *non-amphibian* Waterproofed AFV may be traversed neither into nor through, nor may its AAMG fire at a same- or lower-level target within, that AFV's "rear" VCA.

13.4222 *SWAMPING:* As a *non*-Waterproofed Wading vehicle *enters* (which includes unloading into) a shallow-OCEAN Location, the opponent must make a Swamping DR (△). This DR is modified by a +DRM equal to *twice* the range from that vehicle to the nearest land hex if the Beach is Slightly Sloped, or to *three times* that range if the Beach is Moderately Sloped, or to *six times* that range if the Beach is Steeply Sloped. If the Swamping Final DR is ≥ 12 the vehicle immediately becomes immobilized; otherwise there is no effect. A separate Swamping DR must be made for each vehicle, even if using Platoon Movement.



13.4223 *BOG:* A Wading vehicle exiting a shallow-OCEAN Location is subject to Bog as per B20.46 (and the Chapter B Terrain Chart) only if crossing an OCEAN-Hinterland hexside. D16.23 does not apply to Wading vehicles. See also 13.32.



13.43 *REEFS:* A reef can exist only by SSR or by DYO dr (13.91), and only in Ocean hexes. Regardless of whether a reef is Exposed (13.431) or not, all Ocean hexes on that overlay which lie *between* that reef and the shore are considered shallow, and the Heavy Surf effects given in 13.441-.447 will *not* apply in those hexes. An Alternate Hex Grain reef is always shaped like the Blast Area of a Barrage (E12.11).

13.431 *EXPOSED/SUBMERGED:* A SSR will state that the reef is either Exposed or Submerged. Each Exposed-reef hex is considered a Level −1 Hammada (F3.) land hex and Inherent Terrain, in which all rules for hammada apply unchanged [EXC: Mud effects are NA; no Hammada Immobilization DR (F3.31) is required of Watercraft in an Ocean hex adjacent to an Exposed-reef hex; see also 13.5]. An Exposed-reef hex is considered part of an Island for Drift purposes (13.444), and is never a Hinterland hex. Each Submerged-reef hex is considered a shallow-Ocean hex, all the rules for which apply unchanged therein [EXC: a LC may neither set up in nor enter a Submerged-reef hex, but may Beach across one of its hexsides].

13.44 *HEAVY SURF:* The following (13.441-.447) can apply *only if Heavy Surf is specified by SSR, and only in Ocean hexes* [EXC: 13.441-.447 are NA in hexes *between* a reef and the shore (13.43), as indicated by the "〰" wave symbol beside each of those rule #s]. Surf has no game effect other than those listed in 13.441-.449.

〰**13.441** *SWAMPING:* Each Watercraft that *enters* an Ocean Location, and each Waterproofed Wading vehicle that *enters* (which includes one unloading into) a shallow-Ocean Location, risks being swamped. The opponent makes one Secret (D.5) Swamping DR for that vehicle's entire MPh, plus a Secret dr, in the same manner as for a vehicle moving in mud (D8.23) [EXC: no DR or dr is made for a LC whose Target Size is −3 or −4, nor for a LC/boat that un-Beached in that hex]. If using Platoon Movement, one DR-and-dr is made for the entire platoon.

If the Original DR is a 12, one of the following occurs to the vehicle(s chosen by Random Selection if using Platoon Movement) in the eligible hex determined by the dr: if in deep Ocean it sinks with no survivors; however, if in shallow Ocean it becomes immobilized [EXC: if a LC it becomes Fast Aground (12.211); if a boat (E5.) it sinks and its Passengers become Wading Infantry but all SW and Guns aboard it are lost].

A Swamping DR and dr are made in the same manner for *each* Watercraft that Drifts into any Ocean Location during its APh (i.e., Platoon Movement principles do not apply to APh Drift; 13.444).

A *non*-Waterproofed Wading vehicle that *enters* (which includes one unloading into) a shallow-Ocean Location is immediately immobilized (i.e., no 13.4222 DR is made).

〰**13.442** *(UN)BEACHING:* Whenever a LC that is not Aground begins its MPh or APh in an Ocean Location that contains ≥ one Beach-able hexside, and whenever a LC enters such a Location during its MPh or APh, its owner must make an (un)Beaching DR (△) for it (even if it can/will not perform any other action in that phase). A separate DR is made for each LC even if using Platoon Movement. A +1 DRM applies if the LC's Inherent crew is Inexperienced (12.113), as does a +1 if the LC is adjacent to ≥ one Hinterland/Steeply-Sloped-Beach/non-Beach-Island hex, and a +1 for each other LC (and for each amphibian/non-Passenger wreck) in the same Ocean Location with the LC. A Final (un)Beaching DR of ≤ 8 has no adverse effect on the LC; if that DR is a 9 or 10 the LC immediately becomes TI (unless devoid of PRC) and if presently Beached it becomes un-Beached (or if presently un-Beached it becomes Beached); if that DR is ≥ 11 the LC immediately Broaches (13.4421).



13.4421 *EFFECTS:* A TI LC (including its PRC) may conduct no activity for the remainder of the Player Turn [EXC: if the LC becomes a wreck while TI, its TI status is lost and 12.69-.691 (or Broaching effects, below) will apply].

A LC that becomes un-Beached by an (un)Beaching DR is considered Non-Stopped (12.2; no Start MP is expended) using forward movement [EXC: if its ramp is presently down (12.41), it instead becomes Fast Aground if in shallow Ocean or sinks (12.69) if in deep Ocean], and is also immediately subject to attack/damage by any Tetrahedrons/A-B-mines (14.51/14.53) present in the hex. If the LC is immobilized and has no *lowered* ramp, it automatically becomes Stopped when its TI counter is removed.

A LC that becomes Beached by an (un)Beaching DR does so across a randomly determined Beach-able hexside of its hex, *after* resolving the effects of any Tetrahedrons/A-B-mines in its hex.



A LC that Broaches becomes (as per the preceding paragraph), or remains, Beached. It is then flipped to its Wreck side, its Inherent crew must roll for Survival, and its Vehicle and Infantry Stacks (12.151) are subjected to MC as if (and with all the same consequences as being) attacked by Bombardment in an Open Ground land hex (C1.82-.821) [EXC: no DRM of any kind apply to such MC, but 12.13 does]. All surviving Passengers remain aboard the Broached LC wreck (and, during a Seaborne Assault, would still be required to unload as per 14.231).

For Defensive First Fire purposes, a LC that makes a Final (un)Beaching DR of ≥ 9 is considered to have expended its entire printed MP allotment (or all of its still-available MP—whichever is less) in its present hex.

13.4422 *LC WRECK:* A LC wreck is subject to (un)Beaching DR only if it is *Beached across a hexside but is not Broached,* and receives an extra +2 DRM. A LC wreck that makes an un-Beaching Final DR of 9 or 10 either becomes Fast Aground *in* (i.e., not across a hexside of) its present shallow-Ocean hex or sinks as per 12.69 in its present deep-Ocean hex. Otherwise, a LC wreck is considered equivalent to a LC for (un)Beaching-DR purposes and effects.

13.4423 *BOATS:* All boats (E5.) are subject to (un)Beaching DR (and their effects) just as if they were LC [EXC: the +1 Inexperienced-crew DRM applies if the boat's Passengers are Untrained (E5.34); the +2 wrecked-LC DRM applies if the boat contains no Personnel Passenger; a Broach result eliminates the boat and all its contents, except in shallow Ocean in which case its Personnel Passengers (only) become Wading Infantry].

13.443 *(UN)LOADING:* The normally applicable MF/MP costs for (un)loading Passengers (including vehicles/Guns) from/onto Watercraft in an Ocean hex (or across a Beach-Ocean, or Ocean-Hinterland, hexside) are doubled (FRU *after* all doubling).

13.444 *CURRENT & DRIFT:* During their ATTACKER APh (only), each amphibian/swimmer in a deep-Ocean hex, and each boat/LC in any Ocean hex, Drifts (maintaining the direction of its VCA) one hex toward the nearest (in hexes) land hex that is not part of an Island [EXC: no Watercraft/swimmer Drifts thusly if it is presently Aground and/or adjacent to a land/reef hex, or if during the current Player Turn it has exited a land hex or (un)Beached]. If ≥ two such eligible land hexes exist, one of them is chosen randomly. Each unit Drifts individually; i.e., not as part of a platoon. For Drowning (E6.21) purposes only, swimmers are considered to be in a Heavy current. Current has no other effect in Ocean hexes [EXC: for Drowning purposes only, a swimmer in a deep-lake hex, as well as one in a deep-Ocean hex in which Heavy Surf is *not* in effect, is considered to be in a Slow current].

13.445 *ATTACKS:* All attacks resolved on the IFT [EXC: OBA; attacks by FB/DB; A-B mines (14.53); Collateral Attacks; for Beach-Obstacle elimination purposes (14.56)] made from/vs an Ocean Location receive an extra +1 TH (if ordnance) or IFT (if non-ordnance) DRM. A Fire Lane ends in the first Ocean Location it enters. A dr 2 sniper attack vs a unit in an Ocean Location has no effect. A −1 drm applies to each Tetrahedron (14.51), and a +1 drm applies to each A-B mine, attack dr vs a LC.

13.446 *AGROUND:* LC cannot *run* Aground (i.e., no 12.21 DR are made).



13.447 *WADING INFANTRY/CAVALRY:* All cavalry, horses, and unbroken Infantry, in shallow Ocean are considered CX unless aboard a Watercraft. They become CX immediately upon their entry into (or rally in) shallow Ocean, and that status cannot be removed until the unit is on land or aboard a Watercraft (or LC wreck), at which time it becomes eligible to lose its CX status in the normal manner (as per A4.51).

[Note again that 13.441-.447 apply only if Heavy Surf is in effect in the unit's Location; *13.43]*

13.448 *WIND FORCE:* When Heavy Surf is in effect, Heavy Winds exist for the entire scenario; i.e., no DYO Wind Force DR is made, and a Wind Change dr of ≥ 5 has no effect. See also B25.63.

13.449 *NAVAL OBA:* Heavy Surf does not add a +1 IFT DRM to Naval OBA (14.6) attacks, but does add a +1 drm to its Accuracy dr (14.64).

13.45 *BORE SIGHTING:* An OCEAN hex may be Bore Sighted only if it is shallow.

13.46 *OVERLAY ENTRY:* A Watercraft [EXC: a DD tank expending amphibious MP] entering an OCEAN hex from offboard is considered (for LOS and TH purposes *only*) to have expended four MP to enter that hex, thus in most cases negating TH Cases C^1, C^2, J^1 and J^2. In addition, a Gun on land may claim a ½" −1 Target Acquisition the first time it fires in the *game*, provided it uses the Vehicle Target Type to fire at a Watercraft [EXC: a DD tank expending amphibious MP] in an OCEAN hex during that Watercraft's initial MPh (or DFPh) of the game *and* voluntarily relinquishes its HIP and "?" (if any) to make that shot.[31]



13.47 *SMOKE:* SMOKE from grenades/ordnance/dispensers may not be fired/placed into/in, and OBA SMOKE has no effect in, an OCEAN Location [EXC: Drifting SMOKE].

13.48 *SUNK BOATS:* E5.531-.532 do not apply in shallow OCEAN. The former Passengers of a boat (not LC) that is sunk while Beached across a shallow-OCEAN hexside (or while un-Beached in a shallow OCEAN hex) become Wading Infantry in that shallow-OCEAN hex. All SW and Guns aboard a boat (not LC) that sinks in shallow OCEAN are eliminated.

13.49 *OCEAN MISCELLANEOUS*



13.491 *BERSERK:* Units in OCEAN hexes are not considered Known for berserk creation/charge purposes. In addition, when a unit on land suffers a berserk result but the closest (to it) Known enemy unit on land is farther from it than the closest (to it) enemy unit in an OCEAN hex in its LOS, the result is changed to Battle Hardening instead.

13.492 *PARATROOPS & GLIDERS:* A ⅜" parachute that lands in shallow OCEAN is considered to be Wading and must take a NMC as per E9.42, but with a +DRM as per 13.4222 (as if it were a Wading vehicle) and an extra +1 DRM if Heavy Surf is in effect; 13.421 applies to the NMC DR result. A ½" parachute that lands in shallow OCEAN is eliminated. For the purposes of E8.23-.232, a glider that lands in shallow OCEAN is treated as if landing in a fordable river [EXC: an extra +1 drm applies to its Crash dr if Heavy Surf is in effect in its hex], and all Wading effects apply to its Passengers.

13.493 *RUBBLE:* A shallow-OCEAN Location containing a Rubble counter is considered a rubble land—not an OCEAN—Location.

13.494 *FROZEN:* B21.6 applies if OCEAN is frozen.



13.495 *CC:* CC attacks are NA in non-frozen OCEAN Locations.

13.5 *FORTIFICATIONS:* The only Fortifications that may be set up in OCEAN/reef hexes are Beach Obstacles (14.5). F7.42 applies for Beach hexes. Tunnels are NA in Beach/OCEAN/reef hexes.

13.6 *SEAWALLS:* If a SSR states that a seawall[32] exists, all Beach-Hinterland hexsides designated by that SSR become seawall hexsides as well. In addition, the seawall will be defined as being either High or Low. A seawall never exists along a Steeply Sloped beach nor along an OCEAN-Hinterland hexside.

13.61 *HIGH:* A high seawall is equivalent to a one-level cliff rising from the level −1 Beach; no wall rules apply. However, no cave may have a high-seawall hexside as its CA Hexside (11.1), and only Commandos may Climb a high seawall. See also 13.24.

13.62 *LOW:* A low seawall is treated as a normal wall (B9.) except as stated otherwise.

13.621 *MOVEMENT:* Infantry/Cavalry crossing a low seawall *from* its Hinterland *to* its Beach side do *not* expend the one MF normally required for crossing a wall. Vehicles may cross a low seawall only as per 13.624/13.625.

13.622 *LOS:* A unit *entrenched* in a Beach hex has no LOS across/along a low-seawall hexside/hexspine to any Level 0 Hinterland Location that lies beyond the Hinterland hex common to that hexside/hexspine. Otherwise, a low-seawall hexside does not block LOS, regardless of the beach's Slope; however, a LOS traced across any (but *along no*) low-seawall hexside to *or* from (i.e., not "to/from") a Level 0 Hinterland Location is subject to a +1 LOS Hindrance *if* that hexside is common to neither the hex that LOS originates in nor the hex it ends in. The maximum possible low-seawall Hindrance is +1, regardless of the number of such hexsides the LOS touches.

EX: See the 13.23 illustration; assume a low seawall along all Beach-Hinterland hexsides and no PTO Terrain. Regardless of whether the beach is Slightly or Moderately Sloped, all Japanese units have a LOS to all U.S. units. However, the 4-4-8's LOS to (and hence its attacks vs) LC "H", the 7-6-8, 5-5-8 and 4-5-8, receives a +1 LOS Hindrance. If any Japanese squad(s) use(s) Small Arms vs the 6-6-8, the latter cannot claim a low-seawall Hindrance. If the 6-6-8 had moved adjacent to the non-entrenched 4-4-7, the latter could claim Wall Advantage (but not wall TEM; 13.623) vs a Direct Fire attack. If the three U.S. squads in Beach hexes were entrenched, regardless of whether or not the Japanese squads were entrenched, the only LOS that could exist between any of those opposing squads would be between the 4-4-7 and the 6-6-8, and between the 4-4-7 and the 5-5-8 (and those LOS would be unhindered). An unhindered LOS exists from hex E10 to G10, and likewise from hex 433 (or 420) to 446, even if the units therein were entrenched.

13.623 *TEM:* A non-entrenched unit in a *Hinterland* hex that contains a low-seawall hexside may claim Wall Advantage over that hexside in the normal manner, but cannot claim its TEM/HD benefits [EXC: it may claim the +1 wall TEM vs Indirect Fire as per B9.34 as if the seawall were a normal wall]. A low seawall is not considered a wall for the purpose of firing HEAT (re C8.31).



13.624 *BREACH:* A Mobile dozer may Breach a low-seawall hexside just as if it were Clearing a roadblock. A low-seawall hexside may also be Breached by a HE Concentration from OBA of ≥ 100mm, or by a DC Set in the *Beach* hex as a declared Breaching attempt vs a specific seawall hexside of that hex. If the FFE achieves an Original KIA DR in either hex common to that hexside, one low-seawall hexside of that hex is Breached (use Random Selection if > one exists in the hex). If the DC achieves a Final KIA DR, the specified low-seawall hexside is Breached. A low-seawall hexside may also be Breached by a British AVRE as per 13.62 and British Vehicle Note 37, but only if the AVRE is in a Beach hex. A Breached seawall is treated as Open Ground for movement/Manhandling purposes [EXC: it still negates FFMO in the Beach hex], but otherwise retains low-seawall characteristics.

13.625 *FASCINE:* A Churchill AVRE (British Vehicle Note 37) in a Beach hex may *place* a fascine "against" a low-seawall hexside (of its hex) that is within its VCA, provided the AVRE is Mobile but Stopped. Such placement costs the AVRE one Delay MP. Thereafter, any Mobile full-tracked vehicle may cross that hexside at a cost of 25% of its printed MP allotment plus the COT of the hex entered.



13.7 *PIERS:* All rules for non-pontoon bridges apply to piers except as stated otherwise. Piers may be "wooden" or "stone", as indicated by each Pier counter's brown and gray sides. Each Pier counter must be set up in a water or Beach hex. A unit on a pier is placed above the Pier counter, and occupies a separate, Level 0 pier Location. A pier Location is considered a paved road for setup purposes (see also 13.73).

13.71 *LOS:* Vs a LOS that begins and ends in non-adjacent water/Beach Locations, each intervening stone-pier hex is an Inherent-Terrain (B.6) obstacle while each intervening wooden-pier hex is an Inherent-Terrain +1 LOS Hindrance. A pier hex is neither a Hindrance nor an obstacle to LOS that begins at ≥ Level 0 and ends in a water/Beach Location (or vice-versa) [EXC: if that water/Beach Location is adjacent to a pier hex crossed/touched by that LOS, that LOS is blocked or Hindered as if beginning and ending in non-adjacent water/Beach Locations]. A pier hex has no effect on LOS that neither begins nor ends in a water/Beach Location.

13.711 *LARGE VEHICLES:* If the LOS to/from a vehicle whose Target Size is −2, −3 or −4 would be blocked by an intervening stone pier, the unit/target to which that LOS is being drawn is treated as being directly behind a stone wall and receives the TEM/HD-status thereof even if not adjacent to that pier. Such TEM is not cumulative with any other +TEM [EXC: mud/deep-snow TEM]. See also 13.72.

13.72 *TEM:* A pier Location is Open Ground with a 0 TEM. A unit on a pier can claim Height Advantage (B10.31) only vs an adjacent, in-LOS unit in a water/Beach Location [EXC: not if that adjacent unit is a vehicle whose Target Size is −2, −3 or −4]. See also 13.711.

13.73 *ENTRY:* Infantry changing elevation while entering/exiting a pier Location expend MF as if crossing a hill Crest Line [EXC: diving/jumping into deep water; E6.1]. No Gun, vehicle or Horse counter may be moved to/from a pier Location directly from/into a water or Beach hex. Only Infantry/boats-(E5.) may set-up/enter *beneath* a wooden pier [EXC: Infantry are NA in deep water]. No unit may set-up/enter beneath a stone pier.

13.731 *(UN)LOADING LC/AMPHIBIAN:* A Mobile LC may expend a Stop MP in a water Location adjacent to a pier, even if using forward movement. Likewise, a Mobile amphibian may expend a Stop MP in a water/Beach Location adjacent to a pier. In either case, the Stopped vehicle may (un)load *Personnel (only)* directly onto/off-of that pier, at a cost of 50% (FRU) of their respective MF/MP allotments [EXC: 100%, if Heavy Surf effects apply in that water Location; 13.443]. No extra cost applies for COT or for (un)loading to/from a different elevation, nor does such (un)loading lower the LC's ramp. The ability to (un)load in this manner does not itself prevent an amphibian from instead (un)loading Passengers into/from its own shallow water hex, but would prevent a LC from doing so because it would be Mobile but not Beached.

13.732 *(UN)LOADING BOAT:* Only Personnel may (un)load from/onto a boat (E5.) directly to/from a pier Location, and only if that boat is Beached across a hexside of a pier hex. A boat may Beach across a hexside of a pier hex in the normal (i.e., as given in E5.) manner, but cannot do so while beneath any Pier counter (nor may it un-Beach from a pier to directly beneath a Pier counter).

13.733 *SW:* Infantry/Personnel entering/exiting a pier hex may carry their possessed SW unless otherwise unable to.

13.734 *DRIFT:* A LC/amphibian does not Drift if it would Drift into a pier hex. A boat-(E5.)/swimmer-(E6.) does not Drift if it would Drift into a *stone*-pier hex.

13.8 *MISCELLANEOUS*

13.81 *BYPASS:* Bypass along a Beach/OCEAN overlay hexside is NA.

13.82 *CORAL SOIL:* If a SSR states that Coral Soil is in effect, all Entrenching Attempts receive a +2 DRM and Mud effects are NA.

13.83 *STRAYING:* During a night scenario, a unit that begins its MPh with a LOS to a Beach/OCEAN Location is exempt from Straying in that MPh. A Straying unit that gains a LOS to a Beach/OCEAN Location during a daytime/night scenario immediately becomes TI.



13.84 *VP:* Casualty VP *are* amassed for units/equipment wrecked/eliminated by Swamping (13.4222; 13.441) or Broaching (13.442).

13.9 *DYO:* To set up a DYO scenario using any Beach/OCEAN overlay(s), carry out the following procedures in the order given:

13.91 *REEF:* If the scenario will be Allied-vs-Japanese, set in 1943-44, and will use the OCEAN overlay(s) to represent Ocean, a dr is made after setting up all mapboard(s) and Beach overlay(s) but *before* placing the OCEAN overlay(s) and purchasing units. If this Final dr is ≥ 5, a reef exists. A −1 drm applies if the amphibious side is wholly non-U.S. Unless the players agree otherwise, the reef will comprise the (Alternate) Hex Grain that lies adjacent to the (Alternate) Hex Grain of Ocean hexes forming the amphibious side's entry/exit area.

EX: If a reef exists on Overlay OC1, and if hexrow 1001-1013 is the amphibious side's entry/exit area, the reef will lie in hexes (i.e., in hexrow) 1014-1026.

13.92 *BEACH SLOPE:* Make a dr to determine the beach's Slope. A −1 drm applies if a reef exists. If the Final dr is ≤ 2, the Slope is Slight; if 3 or 4 it is Moderate; if ≥ 5 it is Steep.

13.93 *BEACH WIDTH:* Determine the High- and Low-Tide width of the beach (i.e, its minimum and maximum possible width in Beach hexes between the Hinterland and OCEAN). If the beach is Slightly or Moderately Sloped, make a DR: the colored dr divided by two (if it is Slightly Sloped) or by three (if it is Moderately Sloped) equals (FRU) its High-Tide width; the white dr divided by the same number (i.e., by two or three; FRU)

and then added to the High-Tide width equals the beach's Low-Tide width. If the beach is Steeply Sloped, its High- and Low-Tide widths are always one and two hexes respectively.

13.94 *PURCHASES:* Both sides make all DYO purchases. The BPV cost to Waterproof a vehicle is "2".

13.95 *DEFENDER SETUP:* Set up all OCEAN overlays. If they represent Ocean, set them up so that the beach is at its Low-Tide width; otherwise, set them up to show the beach is at its High-Tide width. The player judged to be defending the beach then sets up; see also 13.5 and 14.2-.21. Any OCEAN hex that is/could-become (13.97) shallow may be Bore Sighted, provided Bore Sighting is otherwise allowed by C6.4-.44.

13.96 *UDT:* After resolving all Recon dr (if any; E1.23), all Underwater Demolition Team (14.561) dr are made and resolved.

13.97 *TIDE:* The player conducting the amphibious operation (or judged *not* to be defending the beach) declares the Tide to be either High or Low [EXC: if the OCEAN overlay represents lake or river terrain, assume the "Tide" to be High]. This, in conjunction with 13.93, determines the beach's actual width for the scenario. Note that this may alter the setup terrain of (and thus might eliminate; 14.56) some/all Beach Obstacles. In addition, if a reef exists, a High Tide makes it Submerged while a Low Tide makes it Exposed. All Bore Sighting in what are now deep OCEAN hexes is lost. All A-T mines now in shallow OCEAN become A-B mines.

13.98 *SURF:* If the OCEAN overlay(s) represent(s) Ocean, make a dr to determine if Heavy Surf is in effect. If the Original dr is a 6, it is; otherwise it is not.

13.99 *ATTACKER SETUP:* The other player sets up, all Bombardments (if any) are conducted (see also 14.56/14.7), and play is ready to begin.

14. SEABORNE ASSAULTS

14.1 If a scenario is defined by SSR as being a Seaborne Assault or a Seaborne Evacuation, certain special rules are in effect:

14.2 *ASSAULT:* The following (14.21-.262) apply only in Seaborne Assault scenarios (see also 14.3):

14.21 *SETUP RESTRICTIONS:* Nothing in the OB of the side defending the beach may be set up in Beach/OCEAN Locations [EXC: Beach Obstacles; 14.5]. A Watercraft with a Passenger PP capacity may enter play only if ≥ ⅔ [EXC: ≥ ½, if the Watercraft is carrying a vehicle/non-dm-Gun] of that capacity is taken up by Passenger unit(s)/equipment.

EX: A LC or LVT with a 39PP Passenger capacity may enter play only if its still-usable capacity has been reduced by Passenger units/equipment to ≤ 13PP.

14.22 *UNDERWATER DEMOLITION TEAMS:* The U.S. side may be able to use UDT in an attempt to eliminate Beach Obstacles; see 14.561.

14.23 *WATERCRAFT PRC:* The Passenger(s) of each LC may be set up and kept in a Cloaking Box as per E5.123 until that LC Beaches, at which time *all* of its Passengers are placed onboard stacked on that LC counter. The same principles apply to the Passenger(s) (as defined in 12.12 for these purposes) of an amphibian, except that they are revealed when their amphibian enters a non-reef, non-Beach land hex. When a vehicle/Gun aboard a LC/amphibian is in a Cloaking Box, treat the top of that Box as the front of the LC/amphibian for (V)CA purposes (12.121). A SW/Gun must be, and remain, dm (if possible) while aboard a LC/amphibian during a Seaborne Assault. When a hidden Passenger aboard a Watercraft is eliminated, the opponent is informed only of the Casualty VP he has thereby amassed, and only if scenario Victory Conditions require him to amass Casualty VP.

14.231 *UNLOADING:* Once a LC has Beached (even involuntarily), all of its Passengers must attempt to unload as soon as possible. Whenever an immobilized LC/amphibian is in a Location in which any of its Passengers can unload, all who possibly can must attempt to unload as soon as possible unless doing so would leave them with no path of enterable hexes to a Hinterland hex.



14.232 *RECALL:* Each LC/amphibian with a Passenger capacity is immediately Recalled when no Passenger unit capable of unloading by itself is aboard it. All Passenger units aboard each ATTACKER amphibian that begins the MPh in a Hinterland hex must take *one* combined TC at some point (of the owning player's choice) in that MPh [EXC: they must take it while in a Hinterland hex]. This Passenger TC is taken even if the amphibian is TI/Shocked/Stunned etc.; and is resolved as a single NTC (Δ) for all Passengers aboard that amphibian, using the highest current Morale Level among them (and basing that Morale Level on their Good Order side unless *all* of those Passengers are broken). If that NTC is failed, the amphibian is immediately Recalled. The Recall of an already-immobilized LC/amphibian has no effect [EXC: the Inherent crew of such an armored amphibian must Abandon (and cannot re-enter) it; D5.341]. Recall as per 14.232 can apply to an amphibian carrying ≥ one Passenger unit even if it is unarmored (and thus is not an AFV; D1.2), or is BU, and/or has an Inherent Driver.

14.233 *ABANDONING AMPHIBIAN:* No amphibian Inherent crew may voluntarily Abandon its vehicle. Whenever an amphibian with a Passenger capacity is immobilized by an ESB (D2.5) or Mechanical Reliability (D2.51) DR, its crew must Abandon it as soon as possible (and 14.231 will apply to its Passengers); after all PRC have left it, that Abandoned amphibian is flipped over to its Wreck side (but will not count as eliminated for VP purposes).

14.234 *"ASAP":* Within all otherwise-applicable restrictions (e.g., those conferred by the presence of a Recall/TI/Shock counter), PRC forced to Abandon/unload "as soon as possible" (even as per D5.341) may do so at any time during, but must do so before the end of, the current or a subsequent friendly MPh (whichever is possible first) [EXC: if broken at the start of a RtPh, they would have to Abandon/unload in that RtPh]. Units need not unload as a single stack just to comply with the "ASAP" requirement, but while still aboard the vehicle they and it are prohibited from performing (or even attempting) any activity [EXC: Manhandling] that would (or possibly could) delay/prevent them from debarking at the required time.

14.24 *BATTLEFIELD INTEGRITY:* Battlefield Integrity (A16.) never applies to the Assaulting side.

14.25 *FG:* No unit of the Assaulting side may form/participate-in a multi-hex FG while in a Beach hex. See also 13.421.

14.26 *DYO:* The side conducting the Assault receives free LC; see 12.9.



14.261 *SAN:* The purchased SAN of the Assaulting side in a DYO daytime scenario is increased by the following applicable amount (to a maximum of 7). However, its SAN is decreased by the same amount at the instant the first friendly unit enters any non-Island, non-reef land hex.[33] While its SAN is thusly increased, the Assaulting side's Sniper counter is *not* an eligible target for the enemy sniper.

OB	SAN Increase
U.S./British	3
Japanese	1
Other	2



14.262 *AIR SUPPORT:* Air Support purchased by the Assaulting side has its BPV halved (FRU), and will arrive at the start of Turn 1 in the form of three FB with bombs. However, all FB are Recalled at the instant the first friendly Watercraft enters (or Beaches adjacent to) any non-Island land hex.

14.3 *ASSAULT/EVACUATION:* The following (14.31-.34) apply only in scenarios defined as Seaborne Assaults or Seaborne Evacuations (see also 14.4):

14.31 *BU/CE AMPHIBIAN:* If an armored amphibian with a Passenger capacity is marked with neither a BU nor a CE counter, its Inherent crew is considered to be CE and all Passengers aboard it are considered BU, through its *armored* Target Facing(s). If an armored amphibian with a Passenger capacity is marked with a CE counter, its Inherent crew and all Passengers are considered CE through their/the-amphibian's *armored* Target Facing(s). No Passenger aboard an amphibian may be CE or claim any CE benefit while the crew is BU.

14.311 *DEPLOYING:* During offboard setup, each squad of the Assaulting side may Deploy freely (i.e., without the need of a leader/TC and regardless of any normal Deployment limits) in order to enter play in Watercraft. Good Order squads of the Evacuating side may Deploy freely as they (or one of their HS) load onto a Watercraft.



14.32 *INFANTRY/CAVALRY:* Each non-prisoner Infantry/Cavalry unit of the Assaulting/Evacuating side is considered Fanatic while in a Beach Location or Wading in shallow

OCEAN. If entering a Beach Location from a Hinterland hex, or unloading from a vehicle into a Beach/shallow-OCEAN Location, it instantly becomes Fanatic, prior to Defensive First Fire vs it. If wishing to advance into a Hinterland hex from a Beach Location in order to CC an AFV, it need not take a PAATC since it is Fanatic when required to take it. A unit already Fanatic receives no further benefit. A unit that receives a "Fanatic" Heat of Battle result while in a Beach Location is marked with a Fanatic counter and remains Fanatic as per A15.3.

While in a Beach Location, Infantry/Cavalry of the Assaulting/Evacuating side treat LLMC as LLTC, treat Heat of Battle "Berserk" and "Surrender" results as "Battle Hardening" results, and if subjected to a break/Step-Reduction result [EXC: one caused by a Wreck Check, para landing, OVR Prevention MC, or Panji MC] always suffer a Casualty Reduction result instead.



14.33 *RECALL:* No vehicle of the Assaulting/Evacuating side suffers Recall due to MA disablement. A Recall due to *attack* effects (*not* due to 14.232) suffered by the Inherent crew of an AFV of the Assaulting/Evacuating side is always treated as a Stun result *only* (i.e., no Recall ensues from that attack); however, the +1 DRM effects of all Stun results vs an AFV crew of the Assaulting/Evacuating side are *cumulative*.



14.34 *AIR SUPPORT:* Aircraft of the Assaulting/Evacuating side treat all friendly units in Beach/OCEAN Locations as *hidden* for all Sighting-TC and Mistaken-Attack purposes. The opponent may *not* place, prior to rolling for Accuracy, a Mistaken-Attack FFE in such a way that its Blast Area includes ≥ one Beach/OCEAN Location occupied by any unit(s) of the Assaulting/Evacuating side. If all units of the Assaulting/Evacuating side are in Beach/OCEAN Locations, then no Mistaken Attack occurs.

14.4 *EVACUATION:* The following (14.41-.42) apply only in Seaborne Evacuation scenarios (see also 14.3):

14.41 *ROUT ONTO LC/AMPHIBIAN:* Infantry of the Evacuating side may rout onto LC/amphibians as if those LC/amphibians were buildings, ignoring those that are Immobile/burning and/or lack the PP capacity necessary to allow the routing unit to load onto it. Such an Infantry unit has only *four* MF if it will load during that RtPh, and must expend the applicable loading cost as if it were the MPh.



14.42 *VP:* Broken/Recalled units, and heroes, *can* count for Exit VP purposes in a Seaborne Evacuation scenario (a hero would be worth one VP). See also 12.84.

14.5 *BEACH OBSTACLES:* Mines, Tetrahedrons, Wire and Panjis are referred to collectively as Beach Obstacles.

14.501 *HIP:* Normal HIP and HIP-loss procedures apply to Beach Obstacles.





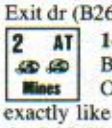
14.51 *TETRAHEDRONS:* Tetrahedrons[34] may be set up only in Beach/Ocean/reef hexes (but see also 14.56), with no more than one such counter per hex. A tetrahedron is neither an obstacle nor a Hindrance, but its Location is considered non-Open Ground. The vehicular COT of a Location containing a Tetrahedron counter is increased by one [EXC: this increase is NA for boats (other than LC), motorcycles and wagons]. There is no extra MF cost to enter a tetrahedron's Location. The reverse side of each Tetrahedron counter is called a Tetrahedron-Wire counter, and is used to show the presence of both Fortification types in the same Location; see 14.52.

Tetrahedrons may attack only LC. Whenever a LC enters, or changes VCA, or becomes (un)Beached as per 13.442, in a tetrahedron-Ocean hex the tetrahedron's owner makes a dr (Δ; one dr per VCA hexspine changed); a −1 drm applies if Heavy Surf effects (besides just Heavy Wind; 13.448) apply in that hex (13.445). If the Final dr is a 2, the LC is destroyed but no Wreck Blaze or Collateral Attack ensues. If the Final dr is ≤ 1, the LC is considered to have detonated an A-B mine (14.53) *Inherent* to the tetrahedron (no B28.51 dr is made), and the LC (and its PRC) are affected as per 14.53. A Final dr of ≥ 3 has no effect. If a LC enters a hex that contains both tetrahedrons and actual (i.e., non-Inherent) A-B mines, their owner may roll for either attack first; if wire is also present (14.52), its effects can come into play only after rolling for those other attacks.

A ⅝" parachute that lands in a tetrahedron's Location must take a NMC as per E9.42, and receives an extra +1 DRM due to the tetrahedron. A glider that lands in a tetrahedron's Location must add an extra +1 drm to its Crash dr.



14.52 *WIRE:* Wire may be set up in Beach hexes that contain no panjis, and in OCEAN/reef hexes that contain tetrahedrons. The presence of wire in a shallow-OCEAN Location adds a +1 DRM to a LC's Aground (12.21) DR *unless* the LC's Target Size is −3 or −4. If the LC (even if its Target Size is −3 or −4) does *not* run Aground due to that DR, it eliminates the Wire counter if the colored dr of that DR was a "1". Amphibians treat wire in OCEAN hexes the same as wire on land. A boat (E5.) entering a wire-OCEAN hex sinks; all SW and Guns aboard it are eliminated, and its Personnel become Wading Infantry above that Wire counter [EXC: wire in an OCEAN Location has no effect on boats and their contents if Heavy Surf effects (besides just Heavy Wind; 13.448) apply in that Location]. A Wire Exit dr (B26.4) made by a unit in an OCEAN Location receives a +1 drm.



14.53 *A-T/A-B MINES:* A-T mines may be set up in Beach/OCEAN/reef hexes. Those that begin play in shallow OCEAN are termed A-B (anti-boat) mines. A-B mines are treated exactly like A-T mines except as stated otherwise. A +1 drm applies to the B28.51 attack dr vs a LC if Heavy Surf effects (besides just Heavy Wind; 13.448) apply in that hex (13.445). A Final B28.51 dr of ≤ the number of A-B mine factors attacks any LC entering/exiting that A-B minefield (all LC are considered unarmored vs A-B mine attacks). The attack is resolved vs the LC with an Effects DR on the ★ Vehicle line of the IFT's 36 FP column; the Original DR subtracted from "13" equals the number of DP inflicted on the LC. 12.68 applies for Blaze purposes.

All PRC (selected as per 12.678, if applicable) of a LC affected by an A-B mine are subject to a 16 FP Collateral Attack [EXC: a Passenger AFV (and its PRC) can be Vulnerable only if its lowest hull AF is 0, in which case it is treated as an unarmored vehicle]. Use the 16 FP column's ★ Vehicle line for each Passenger vehicle/Gun thusly attacked.

Mud/Deep-Snow do not affect A-B mine attacks. A-B mines can also attack Wading vehicles, but are resolved as normal A-T mine attacks.



14.54 *A-P MINES:* A-P mines may be set up in Soft-Sand Beach hexes, and in Hard-Sand Beach hexes that are adjacent to ≥ one Hinterland hex, provided (in both cases) that those hexes contain no panjis. EC are ignored when determining whether a Beach hex is Hard or Soft Sand for A-P mine setup purposes.



14.55 *PANJIS:* Panjis may be set up in Soft-Sand Beach hexes, and in Hard Beach-Sand Beach hexes that are adjacent to ≥ one Hinterland hex, provided (in both cases) that those hexes contain neither wire nor mines.. EC are ignored when determining whether a Beach hex is Hard or Soft Sand for panji setup purposes.

14.56 *ELIMINATION:* Each Beach Obstacle that *begins play* in *deep* OCEAN, or in a type of hex it would not have been allowed to set up in, is immediately eliminated; see 14.58 [EXC: A-B mines that begin play in Beach hexes become A-T mines, and A-T mines that begin play in shallow OCEAN become A-B mines]. During play, a Tetrahedron (or Tetrahedron-Wire) counter can be eliminated only by a DC as per B26.51 or by an Aerial-bomb/FFE-Concentration HE attack as per B26.52, while other Beach Obstacles can be eliminated in the normal manner for each type. Wire eliminated by vehicular entry (14.52; 15.23; B26.53) does not eliminate any tetrahedron in that Location; flip the Tetrahedron-Wire counter over to show just the tetrahedron. The applicable FP of HE attacks vs OCEAN hexes [EXC: DC Placed/Set as per B26.51] is halved (in addition to all other modifications) for Beach-Obstacle elimination purposes. Vs Bombardment (C1.8; 14.7), all Beach Obstacles can be affected in the normal manner for that type of Fortification (tetrahedrons are affected as if they were wire).

14.561 *UNDERWATER DEMOLITION TEAMS (UDT):* The use of UDT is allowed only by SSR or by DYO purchase, and only by the U.S. side in a Seaborne Assault vs the Japanese set in/after 1944. UDT capability is given in the form of a number of dr which are resolved after all pregame setup (and Recon dr, if any; E1.23), but prior to both Bombardment (if any) and the start of play. For each UDT dr allowed, the U.S. player makes the dr and points out to his opponent a number of Beach/OCEAN hexes equal to that Original dr. All Beach Obstacles in those hexes are immediately eliminated; the U.S. player is then informed of what type(s) of Beach Obstacle were eliminated, but is not told of their strength, number or exact location.

14.57 *BEACHING:* All DR/dr required by the presence of any Beach Obstacle(s) in an OCEAN hex that is entered by a LC/boat (or within which a LC changes its VCA) must be made prior to the Beaching declaration (if any) for that LC/boat.

14.58 *DYO:* Each Tetrahedron counter has a BPV of "3". The BPV of other Beach Obstacles remains unchanged (hence a Tetrahedron-and-Wire counter's BPV is "8"). The U.S. (only) player may purchase as many UDT dr as he wishes, at a BPV of "5" each [EXC: purchase is NA both prior to 1944 and vs (versus) other than Japanese; 14.561]. UDT Expenditures are recorded as Fortifications on the DYO Purchase Roster. Note that in DYO scenarios the terrain of Beach Obstacle hexes may change from OCEAN to Beach or vice-versa (due to the amphibious player's declaration of the tide as High or Low; 13.97); see 14.56.



14.6 *NAVAL OBA (NOBA):* NOBA is a specialized type of OBA, and comes in various Caliber Sizes of 100mm-400mm.[35] All rules pertaining to OBA, radios and Observers apply to NOBA except as stated otherwise. NOBA may be used only by the U.S., British (A25.4), Russians and Japanese, and only if so allowed by SSR or by DYO purchase. However, the Japanese/Russian side may use NOBA only if directed by an Observation Plane (E7.6) or Shipboard Observer (14.68). NOBA uses green OBA counters. Neither Plentiful- nor Scarce-Ammunition rules ever apply to NOBA, nor may it use Pre-Registered Fire.



14.61 *SFCP:* The only *onboard* Observer allowed for a NOBA battery is a Shore Fire-Control Party (SFCP). However, a SFCP may be used only with a U.S./British NOBA battery,[36] and is always represented by a Chinese, Italian or Axis Minor (owner's choice) 2-2-7 infantry-crew counter. Such a crew is assumed to be the same nationality as its NOBA battery, and to have all normal infantry-crew *and* Observer qualities except as stated otherwise. A SFCP may possess no SW/Gun [EXC: its Inherent radio; 14.611], nor may it become an Inherent crew. A SFCP is considered Inexperienced Personnel [EXC: it does not lower the B# of its Inherent radio]. A SFCP that sets up onboard may use HIP as if it were manning a field phone. The Casualty VP value of a SFCP is "2".

14.611 *RADIO:* A SFCP is assumed to possess a three-PP *Inherent* radio (△) (thus equalling eight PP for Passenger PP purposes), and may neither Transfer nor drop/share possession of that radio; however, if the SFCP is captured/eliminated, its Inherent radio is immediately eliminated. A SFCP's Inherent radio (referred to hereafter as a SFCP radio) has a Contact value of "8" and a breakdown value of "X12" (G.7 can apply). If the Radio Contact/Maintenance Original DR for a SFCP radio is a 12, the SFCP itself is eliminated (but no VP are awarded). A SFCP radio cannot be used while the SFCP is a Passenger/Rider. No Unarmed unit may be re-armed as a SFCP. A normal radio/field-phone cannot make Radio Contact with a NOBA battery [EXC: the radio of an Observer Plane assigned to that battery], nor may a SFCP radio make Contact with a regular OBA battery or with a NOBA battery other than its own.[37]

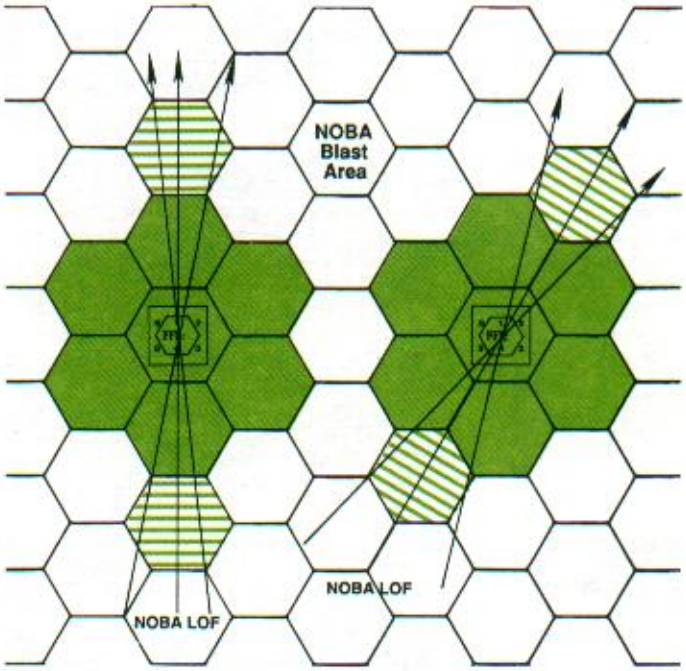
14.62 *NOBA LOF:* Each NOBA battery uses a NOBA LOF which is traced from the center dot of a predesignated Ocean hex through/beyond the center dot of the hex containing that battery's onboard AR/SR/FFE counter (or, in certain cases mentioned below, *to* any given hex[es] within its FFE's Blast Area). The Ocean hex is secretly recorded after all setup but prior to the start of play, and must have ≥ two hexsides along the edge of the playing area and be ≥ twelve hexes away from all Hinterland hexes. Otherwise, the NOBA battery's owner may choose its Ocean hex, provided that no SSR lists a specific hex for that battery and that each NOBA battery uses a different Ocean hex.

14.63 *BATTERY ACCESS:* Each NOBA battery, regardless of nationality, uses a Draw Pile of five black and two red chits. Whenever a chit in the Draw Pile of a NOBA battery would otherwise be permanently removed (C1.211), it is instead mixed back into the Pile; thus no chit is permanently removed from a NOBA Draw Pile. Drawing ≥ two red chits does *not* cause the permanent loss of NOBA Battery Access.[38]

14.64 *ACCURACY:* NOBA, regardless of its nationality, is Accurate on a Final dr of ≤ 2. A +1 drm applies to its Accuracy dr if Heavy Surf is in effect (13.449).



14.65 *BLAST AREA:* The Blast Area of a NOBA Concentration contains *nine* hexes instead of the usual seven.[39] The two extra hexes are determined with the NOBA LOF drawn through the center dot of its FFE counter's hex, and comprise the last hex that LOF crosses as it enters, and the first hex it crosses as it exits, the "normal" seven-hex Blast Area of that Concentration. The FFE, if HE, is resolved vs these two hexes with halved FP (or, if the battery is ≥ 250mm, on the 16 FP column with the Heavy-Payload DRM halved [FRD]; C.7), barring a CH.



14.66 *REVERSE SLOPES:* If a NOBA LOF being traced to any hex within its FFE Blast Area crosses, in the preceding hex adjacent to that hex, a hill whose Base/Crest Level (whichever is higher) is > that of the hex to which that NOBA LOF is being traced, the latter hex is considered a Reverse Slope hex of that battery. A Reverse Slope hex is immune to attack (including WP placement) by the NOBA battery using that NOBA LOF[40] [EXC: an upper building level in a Reverse Slope hex is immune to that battery's attack only if it is lower than the hex that makes the building hex a Reverse Slope hex]. Only hill terrain itself—not woods, buildings [EXC: see 14.661], orchards, etc.—can cause Reverse Slopes. Irrespective of its Observer's LOS, if a NOBA battery's AR/SR is placed (or lands, after all adjustment) in what would be a Reverse Slope hex of that battery if that AR/SR were a FFE, or if its FFE Blast Area lies completely in Reverse Slope hexes of that battery, that AR/SR/FFE counter is immediately removed, that Fire Mission (if any) is Cancelled and that battery's (and Observer's) OBA actions for that phase are ended [EXC: the preceding penalties do not apply if that AR/SR is in a hex with (or that FFE Blast Area contains) an upper building level that is *not* immune to that battery's NOBA FFE and *is* in its Observer's LOS, or if that battery is firing an IR].

14.661 *BUILDINGS:* A Multi-Story Building (B23.23) that is also *multi-hex* can create Reverse Slope hexes as if the building were a hill of the same full-level height.

14.67 *FIRE MISSIONS:* The only Fire Missions usable by a NOBA battery regardless of its nationality/Caliber-Size are HE Concentrations and IR (for the latter see also 14.672). WP Concentrations may also be fired by U.S. (only) NOBA batteries of 120mm-150mm. NOBA may not use other types of Fire Missions (including rockets).

14.671 *NON-CONTINUATION:* A NOBA FFE:C may neither be Converted to a SR as per C1.341 nor replaced by a new Fire Mission's FFE:1 as per C1.342. Instead, if that battery's owner wishes it to begin another Fire Mission, he must place a new AR, etc., as per C1.343 (even if the target hex remains the same).



14.672 *IR:* A NOBA battery of ≥ 150mm with Radio Contact and Battery Access may fire an IR in its PFPh/DFPh even during/at-the-start-of a HE/WP Fire Mission. It first places the IR as per E1.932 [EXC: only method 3 of E1.922 may be used], and then proceeds with its HE/WP Fire Mission in the normal manner.[41]

14.68 *SHIPBOARD OBSERVER:* A non-Aerial Offboard Observer used with a NOBA battery is referred to as a Shipboard Observer. A Shipboard Observer is assumed to be at Level 1 in his battery's Ocean hex, and both grants a −1 drm to that battery's Accuracy dr and halves (FRU) its Extent-of-Error dr. However, a Shipboard Observer may place an AR only

in/adjacent-to a Known (to him) enemy ground unit, and must make an *extra* chit draw if a Known (to him) *friendly* ground unit is within six hexes of that AR.[42] A Shipboard Observer who has successfully placed an AR prior to beginning a new Fire Mission may dispense with the SR and instead immediately place a FFE:1 (for which Accuracy/Extent-of-Error are then determined, etc). Otherwise, a Shipboard Observer is treated as a normal non-Aerial Offboard Observer.

14.69 *DYO:* A DR made on the OBA Availability Chart prohibits rolling on the NOBA Availability Chart (and vice-versa). The U.S. side may purchase NOBA only for scenarios set in/after 8/42. Purchase dates for British NOBA are 1940-45, for Japanese NOBA are 1937-42, and for Russians are 1939-45. Each U.S./British NOBA battery comes with a SFCP (in lieu of a leader and radio, and at no extra BPV cost) unless an Observation Plane or Shipboard Observer is purchased for it. However, an Observation Plane or Shipboard Observer *must* be purchased for each British NOBA battery in a 1940 scenario, for each U.S. NOBA battery in a scenario set prior to 11/42, and for *every* Japanese/Russian NOBA battery regardless of the scenario's date. The BPV of a Shipboard Observer is "20". Contrary to E7.6, no Air Support Availability DR is required in order to purchase an Observation Plane for a NOBA battery, and the U.S./British/Russian side may purchase a NOBA Observation Plane(s) regardless of the scenario's date (1.6621 applies for the Japanese).

NOBA AVAILABILITY CHART

NATION.:	Japanese	Russian	British	U.S.
DATES:	**1937-42**	**1939-45**	**1940-45**	**8/42-45**
DR: 2 BPV:	400+ 358[1]†	350 316[1,2]†	400+ 358[3]†	400+ 358[3]†
3	350+ 316[1]†	100+ 105[1]*	350+ 316[3]†	350+ 316[3]†
4	200+ 190[1]†	150+ 158[1]†	100+ 105[3]*	200+ 190[3]†
5	150+ 158[1]†	120+ 126[1]*	200+ 190[3]†	120+ 130[3]W*
6	120+ 126[1]*	120+ 126[1]*	100+ 105[3]*	150+ 162[3]W†
7	120+ 126[1]*	150+ 158[1]†	120+ 126[3]*	120+ 130[3]W*
8	150+ 158[1]†	120+ 126[1]*	120+ 126[3]*	150+ 162[3]W†
9	150+ 158[1]†	100+ 105[1]*	100+ 105[3]*	120+ 130[3]W*
10	120+ 126[1]*	100+ 105[1]*	150+ 158[3]†	200+ 190[3]†
11	200+ 190[1]†	100+ 105[1]*	150+ 158[3]†	300+ 274[3]†
12	400+ 358[1]†	100+ 105[1]*	400+ 358[3]†	400+ 358[3]†
MAX. BPV:	358	316	358	358

[1]: Must also purchase Observation Plane (E7.6) or Shipboard Observer (14.68).
[2]: If scenario is set in/after 1943, treat as "150+" (BPV: 158†).
[3]: Comes with SFCP (14.61) [EXC: must purchase Observation Plane (E7.6) or Shipboard Observer (14.68), if scenario is set in 1940 (for British NOBA) or prior to 11/42 (for U.S. NOBA)].
W: Can fire WP but not Smoke.
*: Can fire IR (E1.93).
†: Can fire IR as per 14.672.

14.7 *NAVAL BOMBARDMENT:* Naval Bombardment is treated like normal Bombardment (C1.8-.823) except as stated otherwise. Each Naval Bombardment potentially affects any playable rectangular area 10 hexes wide by 33 hexes long. Just prior to resolving the Naval Bombardment, the player conducting it declares its exact area (i.e., he does not secretly record the area prior to his opponent's setup).

14.71 *IMMUNE AREAS:* No C1.81 dr are made to determine *immune* areas. Instead, when the player conducting the Naval Bombardment declares its exact area he must also specify three parallel (Alternate) Hex Grains that lie within, and run the 33-hex length of, that area. Along their entire length within that area, those three (Alternate) Hex Grains will be immune to its effects. Such an Alternate Hex Grain is always configured like that of a Barrage (see the E12.11 diagrams), aside from being longer than nine hexes.

14.711 *NON-IMMUNE HEXES:* Each normally immune hex that contains a non-hidden Fortification *is* subject (i.e., is *not* considered immune) to Naval Bombardment [EXC: see 14.712].

14.712 *REVERSE SLOPES:* A land Location is immune to Naval Bombardment if it would be considered a Reverse Slope (14.66) Location of *all* enemy NOBA batteries if *every* Ocean hex in play contained the Shipboard Observer of a different enemy NOBA battery. If such an immune Location is also the Base Level of a cave's Entrance Hex, that cave is also immune to Naval Bombardment.

14.72 *RESOLUTION:* Each Naval Bombardment MC DR receives a +2 DRM. Each hidden Fortification counter [EXC: mines and caves] subjected to a Naval Bombardment MC is revealed (regardless of LOS) unless eliminated.

14.73 *SECOND ATTACK:* If a non-hidden Fortification counter currently exists in a hex after fully resolving all effects of the Naval Bombardment vs that hex, all non-immune (see 14.711-.712) Locations in that hex are immediately subjected to a *second* Naval Bombardment attack (of the same MC level[s], and using the 14.72 +2 DRM).

14.74 *DYO:* Naval Bombardment may be purchased only if ≥ one OCEAN overlay treated as Ocean is in play, and only if no normal Bombardment is purchased by that side. The BPV of each Naval Bombardment is "250".

15. BULLDOZERS

15.1 *TYPES:* The game system includes three types of bulldozers (which are referred to collectively as *dozers*): unarmored, armored, and tankdozers. The following both add new rules for dozers and summarize the existing rules for their use.



15.11 *UNARMORED:* An unarmored bulldozer is a fully tracked, unarmed vehicle with an Inherent Driver (and thus no CS#). Its weight is "9.5". It has a MP allotment of "8" and Low Ground Pressure (and the Bog DRM for ground specified as "soft, mud, or snow-covered" [D8.21] does not apply). Its minimum road cost is one MP (i.e., it may not use the ½-MP road rate, as signified by "Road Rate NA" on the counter); and it may not attempt ESB. It has no Passenger PP capacity, but may carry one SMC (and the ≤ 2PP he possesses) as a Rider. Its Target Size is "0"; however, as signified by "+2 for HH" on the counter, a special +2 TH DRM applies to the calculation of a Direct-Fire *front-hull* hit vs it unless the firer is at least one full level higher than it (see also 15.13). In addition, as signified by "+2 vs non-ord DirF in VCA" on the counter, it receives a +2 IFT DRM vs non-ordnance Direct Fire [EXC: FT; DC; MOL] attacks vs it which emanate from another hex within its VCA [EXC: this DRM is NA if the firer is at least one full level higher than the dozer]. The Casualty VP value of an unarmored bulldozer is "2".

15.111 *ATTACKS vs:* Any Small-Arms/MG attack [EXC: one that also uses MOL] IFT DR vs a non-Abandoned unarmored bulldozer which would result in that dozer's elimination kills its Inherent Driver (leaving the dozer Abandoned) *instead*, if that DR's Original colored dr is ≤ 3. A "1" sniper dr attack vs an unarmored bulldozer kills its Inherent Driver instead of immobilizing it [EXC: if the dozer is already Abandoned, it is immobilized (and thus becomes a wreck; D8.1)]. See also 15.27.



15.12 *ARMORED:* An armored non-tank bulldozer is an OT AFV with a weight of "10" and a Casualty VP value of "4". Otherwise it is treated as per 15.11. Despite being OT, an armored non-tank bulldozer cannot be CE or claim any CE benefit—as signified by "BU" on the counter.



15.13 *TANKDOZER:* The only two tankdozers are the U.S. M4 Tankdozer and the British Sherman Dozer(a); see U.S. Vehicle Note 18 and British Vehicle Note 23 respectively. **[ERRATA:** "+2 for HH" in U.S. Vehicle Note 18 is NA vs mortar fire.] A tankdozer may not fire [EXC: CC] during a Player Turn in which it wishes to doze, nor may it or its crew attempt to place smoke in that Player Turn *while* dozing. The Casualty VP value of a tankdozer is one > its otherwise-applicable (i.e., as per A26.2-.3) value.

15.2 *CAPABILITIES:* A Mobile dozer may: Clear Flames, roadblocks and rubble (with a −5 DRM; B24.7), and accumulate Labor Status DRM (B24.8); Breach bocage (B9.541); enter dense jungle or bamboo without using a road/TB,

creating a TB as it does so (2.21; 3.1); make a Bog DR for dense jungle or bamboo without the extra +2 DRM if dozing (2.211; 3.1); enter (thereby Collapsing) a hut without taking the Collapse PTC (5.4); Breach a Drained/In-Season paddy Bank hexside (8.8); enter a panji Location across one of that Panji counter's Covered hexsides without becoming immobilized (9.42); change position from beneath a Panji counter to above it or vice-versa (9.5); exit a panji Location across one of that Panji counter's Covered hexsides from beneath that Panji counter (9.6); change a Covered hexside of a Panji counter to a non-Covered hexside (9.73-.731); and Breach a low seawall (13.624).

A dozer engaged in Clearance (inclusive of the entire time it is covered with a Labor Status counter) is considered to be dozing. Dozer Labor Status remains in effect until the declared Clearance attempt is successful, the dozer leaves its present Location, or it attempts some other type of Clearance/dozing. Dozing may be claimed for more than one activity at a time only as per 15.26, and may *never* be declared/conducted while using Reverse movement.

15.21 *vs PILLBOX/ENTRENCHMENT/TUNNEL:* A Mobile dozer may use Clearance (B24.7) to eliminate a Pillbox/Entrenchment counter or a friendly (or Recovered enemy; B8.61) tunnel entrance/exit that is not in a building Location. To do so, the dozer's owner must first declare the attempt vs one such "target" during the dozer's MPh while it is in the same hex with that "target". The dozer must then expend a Stop MP in that hex (if non-Stopped), and is marked with a TI counter to show that it can conduct no other activity during that Player Turn while Mobile. If it is still Mobile at the end of that Player Turn's CCPh and no Melee exists in its hex, its owner makes the Clearance DR. The only DRM possible are: +x for Labor Status; +y for leadership; −5 for the dozer; a +DRM equal to the +TEM of the terrain in that hex (e.g., +2 for dense jungle; 0 for Open Ground or kunai), excluding any TEM caused by the presence of shellholes, a bridge, Fortification(s), and/or Artificial Terrain (B.9); and a −1 for each 25% (FRD) of its printed MP allotment which the dozer has spent in Delay that MPh while thusly TI. A successful Clearance DR successfully eliminates that "target". All of an eliminated entrenchment's/pillbox's contents, plus all tunnel entrances/exits in its Location, are eliminated as well [EXC: if a tunnel with another existing exit connects to that pillbox and is usable by its occupants, they (excluding Guns) are placed offboard (in the proper Cloaking Box if applicable) beneath a Sewer counter; in their next APh they must exit the tunnel as per B8.61].

15.22 *vs CAVE:* A dozer may eliminate a cave as per 15.21 [EXC: elimination of an Upper-Cliff cave (11.113) is NA], with the following changes to the procedure. Vs a cave in a non-Depression hex, the Clearance attempt may be declared (and made) only while the dozer is ADJACENT (11.6) to the cave in its Entrance Hex and has the cave within its VCA. If that cave and ADJACENT dozer are not at the same elevation, the dozer must also be in Crest status (F5.42) when it declares—as well as when it makes—its Clearance attempt; vehicle Crest status is permitted for Cave Clearance purposes even if the Depression is not a wadi. All of an eliminated cave's contents, but no tunnel entrances/exits in its (or the dozer's) hex, are eliminated [EXC: Infantry (and their possessed SW/Guns) in an eliminated cave may survive if their owner can (and does) immediately move them into an Accessible cave/Cave-Complex (note that a Gun cannot enter a cave directly from another cave; 11.76)].

15.23 *vs WIRE:* A dozer may remove wire as per B26.53. However, if prior to making the Bog DR its owner declared it to be dozing, it automatically eliminates the wire unless it bogs.

15.24 *TRAILBREAKS:* Any (even an unarmored) non-TI Mobile dozer may create a TB as per B13.421 or B28.61, and need not be declared to be dozing to do so.

15.25 *vs SINGLE-STORY HOUSE:* Any non-TI Mobile dozer may attempt to rubble a Single-Story House (B23.21) that contains no (other) friendly unit. It does so by declaring the attempt and making a Minimum Move to enter (or change VCA in) the Single-Story House. Bog due to its entry/VCA-change can occur only on an Original Bog DR of 12. The Original Bog DR also serves as an Original Clearance DR, to which the *only* applicable DRM are the −5 for a dozer, any accumulated Labor Status, and a +3 if the Single-Story House is stone. If the Final Clearance DR is ≤ 2 and the dozer remains Mobile after all Defensive First Fire vs it, the Single-Story House is rubbled. Such rubbling has no effect on any occupant(s) of the Single-Story House. A dozer is immune to falling into a cellar while attempting to rubble a Single-Story House.

15.26 *OVR:* A Mobile non-tank bulldozer that is not TI may conduct an OVR in the normal manner, using a total of two FP, and is considered to be dozing as it does so. A tankdozer may conduct the same type of OVR *if* it fires none of its armament as it does so. Dozing may be declared/conducted for more than one activity at a time only if one of those activities is this type of OVR; and each such activity requires its own Effects DR, implemented separately.

15.261 *vs SANGAR:* A non-tank bulldozer OVRs a sangar as per F8.41 as if it were an AFV. 15.26 still applies.

15.27 *CAPTURE:* All non-tank bulldozers are treated as unarmed-and-unarmored vehicles for capture and captured-use purposes, and are remanned as per A21.21. If no enemy Personnel are in a Location with a non-tank dozer, it may be captured automatically by any Infantry unit in the same Location at the end of a CCPh. Dozing abilities are not affected by captured use [EXC: a tankdozer manned only by one SMC cannot declare dozing].

15.3 *DYO:* Any side making the appropriate Availability DR (H1.4) may purchase ≥ one unarmored bulldozer, the BPV of which is "20". The RF of an unarmored bulldozer is 1.6 pre-1940, 1.5 for 1940, and 1.4 [EXC: 1.5 for partisans, Chinese and Allied/Axis Minors] for 1941-45. However, the U.S./British side may deduct .1 for a scenario set in 1943 and .2 for one set in 1944-45 [EXC: no deduction is made for a scenario set in Burma].

Only the U.S./British side may purchase any armored non-tank bulldozer(s), the BPV of which is "30". The British may do so (RF: 1.3) only for a scenario that is set in/after 6/44 and is *not* vs Japanese/their-allies. The U.S. may do so only for a scenario that is set in/after 7/44; RF is 1.4 vs Japanese and 1.5 otherwise.

16. TROPICAL CLIMATIC CONDITIONS

16.1 *TROPICAL SCENARIO:* A Tropical scenario is defined as one in which PTO Terrain (G.1) is in effect.

16.2 *WEATHER:* The following chart is used in lieu of the E3 Temperate Weather Chart to determine the weather of a Tropical DYO scenario.

TROPICAL WEATHER CHART

Final DR	Weather	DRM	
≤ 2	Heavy Rain[a][b] & Mud	−2	June-Sept. scenario in Burma/India
3	Heavy Rain[a][c]	+2	Nov-April scenario in Burma/India
4	Mud & Overcast	+3	8-9/42, or 2-8/44, scenario using U.S.M.C.
5	Mud		
6	Overcast[d]		
7	Overcast		
8	Clear & Gusty		
≥ 9	Clear		

[a]: The scenario begins with Heavy Rain (i.e., rain of increased intensity as per E3.51) already falling, and such rain lasts throughout the scenario.
[b]: All streams, ponds and rivers are flooded [EXC: rivers are not flooded if Overlay Be7 is in use; 13.11], and all river current is heavy.
[c]: All streams are deep, and all river current is moderate.
[d]: If rain starts, it does so as Heavy Rain that will last throughout the scenario.

16.3 *EC:* The following chart is used in lieu of the B25.5 EC Chart to determine the EC of a Tropical DYO scenario.

TROPICAL EC CHART

Final dr	EC	EC DRM/drm	drm	
≤ 1	Mud	−3	−2	June-Sept. scenario in Burma/India
2-3	Wet	−2	+2	Nov-April scenario in Burma/India
4-5	Moist	−1	+3	8-9/42, or 2-8/44, scenario using U.S.M.C.
6-7	Moderate	0		
≥ 8	Dry	+1		

16.4 *WIND:* The following table is used in lieu of the B25.63 Wind Force Table to determine the initial Wind Force of a Tropical DYO scenario.

TROPICAL WIND FORCE TABLE[a]

Final dr	Wind Force	Result
≤ 3	Mild Breeze	Wind Direction DRM and Dispersed SMOKE
4	Heavy Wind	Automatic Spread Downwind; None Upwind
≥ 5	No Wind	No Wind Direction DRM

drm
−1 If the scenario uses any OCEAN overlay(s) treated as Ocean

[a]: NA if Heavy Surf is in effect (13.448).

16.41 *DIRECTION:* Players designing DYO scenarios using any OCEAN overlay(s) treated as Ocean might wish to note that the wind (if any) generally tends to blow from offshore during the day and from inland at night.

17. THE U.S. MARINE CORPS & EARLY U.S. ARMY



17.1 *U.S. MARINE CORPS:* U.S. Marine MMC are Elite, normally have an ELR of 5 and do not Disrupt. Neither Heat of Battle nor ELR Replacement can transform a U.S.M.C. MMC into a U.S. Army MMC or vice-versa (hence a U.S.M.C. squad whose ELR is ≤ 4 still becomes its two broken HS if it fails a MC by > its ELR).

17.11 *SQUADS:* The 4-5-8 and 5-5-8 represent the early-war U.S.M.C. rifle and BAR squad respectively. The 4-5-8 also represents Marine Defense Battalion personnel. The 6-6-8 represents the mid-war, and the 7-6-8 the late-war, U.S.M.C. rifle squad. A Good Order 7-6-8 may Deploy freely during setup (i.e., the normal 10% limit does not apply), or in its RPh by passing a NTC (A1.31), regardless (in both cases) of the presence of a leader.[43] Contrary to A25.3, the broken-side Morale Level of U.S.M.C. squads is not one > that on their Good Order side.

17.111 The 5-5-8, if given Assault Fire capability by SSR or by DYO purchase, represents the U.S.M.C. paratrooper (Paramarine) squad. If given Assault Fire and Stealthy capabilities, the 5-5-8 represents the U.S.M.C. Raider squad.

17.12 *HS:* The 3-4-8 is the HS of both the 6-6-8 and 7-6-8 squad (since, due to their usage dates, these squads will not appear together in a scenario; 17.15).



17.13 *CREWS & SMC:* The 2-2-8 is the U.S.M.C. infantry-crew. U.S.M.C. vehicle-crews [EXC: LC crews; 12.112] and SMC are represented by the pertinent U.S. Army counters, to which they are equivalent in all respects.

17.14 *RE-ARMED:* Regardless of the scenario date, any Unarmed U.S.M.C. squad/HS that becomes re-armed (A20.551-.552) is exchanged for a U.S.M.C. 4-5-8 squad or 2-4-8 HS respectively.

17.15 *DYO:* U.S.M.C. Personnel may appear only in scenarios vs the Japanese, and are restricted to the following usage dates [EXC: 17.14]:



Personnel Type	Usage Dates
2-2-8 infantry-crew	12/41-45
4-5-8 Defense Battalion squad	12/41-43
4-5-8 rifle squad	5-11/42
5-5-8 BAR squad	5-11/42
5-5-8 Paramarine/Raider squad	8/42-43
6-6-8 rifle squad	12/42-3/44
7-6-8 rifle squad	4/44-45

17.151 The following apply to the U.S.M.C. *side* for DYO purposes. The respective overall ratio of U.S.M.C. 4-5-8 rifle squads to 5-5-8 BAR squads must be ≥ 3:1 at the time of purchase. 4-5-8s may be purchased using a BPV of "13", in which case they are considered Defense Battalion squads. 5-5-8s may be purchased using a BPV of "14", in which case they are considered Paramarine squads; or using a BPV of "15", in which case they are considered Raider squads. (The BPV of Defense Battalion, Paramarine and Raider HS remain unchanged.) For SW allotment purposes the Equivalency of Defense Battalion, and of Paramarine/Raider, squads must be calculated separately from all other squad types in the U.S. OB—as indicated by their separate SW Allotment Charts. The U.S.M.C. Rifle/BAR Squad SW Allotment Chart allots FT and DC to 7-6-8 squads regardless of whether or not they are Assault Engineers. The U.S.M.C. Leadership Generation factor (H1.8) is "4.5". See p.H112 for the U.S.M.C. SW Allotment and OBA charts.



17.152 *LVT:* If the U.S. side is making a Seaborne Assault (14.1) and the Majority Squad Type (E.4) of its OB is U.S.M.C., it may add to its OB as many LVT2/LVT(A)2/LVT4 as it wishes (assuming that, as per the scenario date and the H1.4 Availability DR, they are available for use), and pays no purchase points for them. However, see also 14.21.



17.2 *EARLY U.S. ARMY:* In U.S.-vs-Japanese scenarios set prior to 6/42, U.S. elite 6-6-7 Army squads and their HS are used for regular U.S. Army forces (including Philippine Scouts) and U.S. 4-4-7/3-3-6 squads and their HS are used for Philippine Army (P.A.) troops. For rules purposes, P.A. Personnel are considered U.S. Army units; however, neither Heat of Battle nor ELR Replacement can transform a P.A. MMC into a non-P.A. U.S. MMC or vice-versa (hence a P.A. 4-4-7, or its HS, that Battle Hardens becomes Fanatic). This restriction applies even in early-war scenarios in which P.A. Personnel counters are actually being used to represent rear-echelon/badly-disorganized U.S. Army (as opposed to P.A.) troops.

17.3 *INHERENT CREWS:* In scenarios vs Japanese, U.S. Inherent AFV crews have a Morale Level of 8 and U.S. Inherent non-AFV crews have a Morale Level of 7. In all other scenarios, the Morale Level of U.S. Inherent crews is 7 and 6 respectively. [EXC to all: LC Inherent crews; 12.11.]

17.4 *NAPALM:* Napalm[44] (in lieu of HE) bombs may be used by U.S. FB if both of the following conditions are met:

- The scenario is vs Japanese and set in/after 7/44 (or is vs Germans and set in/after 8/44); and
- After determining (as per SSR or E7.21) that the FB is/are armed with bombs, the U.S. player makes a Napalm Availability *Secret* Final dr of ≤ 1 (a −2 drm applies if the scenario is vs Japanese). One dr determines the type of bombs for all of that side's FB [EXC: if the SSR specifies that the FB is/are carrying *HE (only)* bombs, the Napalm Availability dr is NA].

17.41 *EFFECTS:* Napalm bombs are treated the same as HE bombs for TH purposes [EXC: napalm always receives an extra −1 TH DRM, and Target Size (C6.7) TH DRM do not apply; napalm cannot achieve a CH]. A *hit* by napalm is treated as an attack by a 24-FP FT except as stated otherwise. Napalm FP is not halved by HIP/concealment or Long Range, but is halved if the attack used the Area Target Type. A napalm attack vs a cave can also attack other caves Accessible (11.6) to it, as per 11.834; see also 11.86. Napalm neither causes Air Bursts nor leaves Residual FP. A napalm hit is resolved as a single attack vs all in-LOS targets (both friendly and enemy) in the hex, using one Effects DR [EXC: napalm has no effect on any unit/SW/Gun that is in shallow/deep water other than a non-flooded stream]. Despite the fact that napalm normally creates smoke (see below), it may be used after another weapon has fired non-SMOKE ammunition in that same phase.



An Original K/KIA napalm attack result does not cause a Flame as per B25.12. However, any *hit* by napalm [EXC: one that occurs in shallow/deep water other than a non-flooded stream] results in the immediate placement of a Blaze counter at the Base Level of the target hex (or Entrance Hex, vs a cave; see 11.86), even if that hex is not Burnable Terrain, and the simultaneous placement of a white +3 Smoke counter (which represents the smoke from that Blaze) directly beneath that Blaze—even if Gusts/Heavy-Winds/Rain/Mud/Deep-Snow are in effect. All Blaze/Smoke rules apply in the normal manner except as stated otherwise. When that Smoke counter is removed from the board (such removal is possible *only* as per A24.4), that napalm Blaze counter is removed as well if it is in non-Burnable Terrain; if it is in Burnable Terrain, the player who placed it must at that time make a Kindling DR as per B25.13, and if the Final DR is ≥ that terrain's Kindling number that napalm Blaze instantly becomes a Terrain Blaze. If Heavy-Winds/Rain are in (or come into) effect, the Smoke counter that accompanies a napalm Blaze is considered to exist *only* for the purpose of determining when that Blaze will be removed or transformed into a terrain Blaze; however, Gusts/Mud/Deep-Snow have no effect on napalm smoke.

When the napalm Smoke counter is removed from the board, a separate Random SW Destruction dr is made on the IFT's 12 FP column for each

non-subterranean SW/Gun still in the hex that contained the napalm Blaze. A +1 drm applies to a SW/Gun in a pillbox. A napalm Blaze itself does not affect any Fortification or cause a vehicle/wreck to be removed from play.

17.42 *BRITISH/CHINESE:* British (A25.4) FB may use napalm as if they were U.S., but availability vs Japanese is limited to 1945, and vs Germans is limited to Italy and 4-5/45. Only U.S., British, and G.M.D. Chinese (18.831) FB may use napalm.



17.5 *60mm MTR OBA:* Regardless of whether the U.S. player is using Army/Marine troops, he may *not* exchange 60mm mortars for OBA (U.S. Ordnance Note 1) if every hex along his only Friendly Board Edge is an OCEAN (13.12) hex, nor if any of those mortars enter as reinforcements [EXC: if all three mortars enter on the same turn and non-OCEAN edge of the playing area, they *may* be exchanged at the start of that Player Turn].

18. THE CHINESE

18.1 Chinese troops are of two distinct types: Nationalist ("G.M.D.") and Communist ("Red"). Chinese counters [EXC: Red Chinese Personnel; 18.3] have a unique two-tone color.[45] The term "Chinese", when not preceded by "G.M.D." or "Red", refers to both types collectively.



18.2 *G.M.D.:* Shown above are the G.M.D. MMC. A 3-3-7 may Battle Harden to a 5-3-7 (or a 1-2-7 HS to a 2-2-7 HS) only if 5-3-7s form the Majority Squad Type (E.4) of the G.M.D. OB that is *currently in play*. G.M.D. Personnel cannot Deploy [EXC: A20.5; A21.22], are always Lax *at night*, have a "0" Heat of Battle DRM, and receive an extra +1 drm for Leader Creation purposes. Non-elite (not just Inexperienced) G.M.D. Chinese must pass a 1PAATC rather than a normal PAATC.

18.21 *SMOKE:* 5-3-7 squads may attempt WP placement as per A24.3.



18.3 *RED:* Red Chinese squads, HS and SMC use Partisan counters while their crews use Russian crew counters. All Red Chinese are considered Partisans (A25.24) for all purposes, but are also immune to Cowering.



18.31 *COMMISSARS:* Red (only) Chinese may use Commissars just as if they were 10/42 Russians (A25.22-.223). However, if a Commissar fails to rally a Red Chinese unit, the latter is *not* Replaced/eliminated—it simply remains broken [EXC: Fate; A10.64].

18.4 *EQUIPMENT:* All Chinese use Chinese (i.e., two-tone color) SW, Guns and vehicles. Neither Red nor G.M.D. Chinese treat Chinese SW/Guns as Captured, even if one side captures them from the other during play. Each SW Scrounged/Removed from a Chinese vehicle is represented by the appropriate Chinese SW.

18.41 *ORDNANCE:* Chinese ordnance [EXC: non-Captured ATR and MG] uses red TH numbers.

18.42 *OBA:* Chinese OBA normally receives five black and two red cards/chits. However, if the original Majority Squad Type (E.4) of the full Chinese OB is 5-3-7, its OBA is assumed to have Plentiful Ammunition; if that Majority Squad Type is 3-3-7 or 3-3-6, it is assumed to have Scarce Ammunition [EXC: for DYO see 18.82].

18.421 *RADIO:* The Contact number of a Chinese radio is "8" if the original Majority Squad Type of the full Chinese OB is 5-3-7, "7" if that Majority Squad Type is 4-4-7, or "6" otherwise.

18.43 *TEMPORARY CREW:* A Chinese HS, or infantry-crew, being used as a Temporary Crew receives a +2 drm to its A21.22 AFV Start dr.

18.44 *VP:* A Gun, dm 76-82mm MTR, or vehicle, of the Chinese side which is Captured by the opponent has its regular VP value quadrupled (instead of doubled) at the end of play.[46]

EX: A Captured, functioning Chinese Gun held by the Japanese at scenario end is worth 8 (instead of the normal 4) VP.

18.5 *HUMAN WAVE:* Chinese may make Human Wave attacks just as if they were Russians (A25.23-.231).



18.6 *DARE-DEATH SQUADS:* During his pregame setup the Chinese player may designate ≤ 10% (FRU) of the *squads (only)* in his scenario OB as Dare-Death Squads[47] by secretly recording their IDs on paper [EXC: no 5-3-7 may be so designated]. Each armed, Good Order Infantry Dare-Death Squad (or its surviving HS) that at the start of *its* MPh is in/ADJACENT-to a Location containing an unpinned, Good Order, friendly Personnel leader, and that is within eight MF of an enemy ground unit to which it *and* that leader have a LOS, may at that time go berserk *voluntarily* [EXC: it cannot thusly go berserk if it/that-leader is marked with a Prep/Bounding/Pin/TI counter, nor if any marsh/swamp/cliff/unbridged-Water-Obstacle would prevent it from reaching that enemy unit's hex during that MPh, nor if that enemy unit is in an OCEAN Location]. The berserk MMC must then charge that enemy unit (now considered its Designated Target) and attempt to enter its Location. The leader (and/or any other Good Order friendly leader stacked with that berserk MMC) may (but need not) go berserk at the same time, provided each such leader is Infantry to whom none of the conditions given in the above EXC apply; each who does go thusly berserk must charge that same enemy unit. Infantry that voluntarily go berserk automatically return to normal at the end of that Player Turn [EXC: if in Melee at that time, they remain berserk until no longer in Melee]. Use a *red-on-white* Berserk counter to indicate a unit that has gone berserk voluntarily.

A leader, whether created from a Dare-Death MMC or not, cannot go berserk voluntarily except as stated above. However, when a Dare-Death MMC does go berserk voluntarily, any hero(es) stacked with it (and allowed to move) may accompany it during that MPh; in that MPh, each such hero is assumed to have *eight* MF [EXC: three MF if wounded] and *may* enter the Designated Target's Location—but may not move in the subsequent APh.

18.61 *HUMAN WAVE:* No unit that voluntarily goes berserk (or accompanies it as per 18.6) may also be used to form a Human Wave in that Player Turn, or vice-versa.

18.62 *CC:* Dare-Death MMC enter into and resolve Hand-to-Hand CC as if they were Japanese. In addition, each *non*-Hand-to-Hand CC-vs-Personnel attack in which ≥ one Dare-Death MMC participates receives an extra −1 DRM. These attributes apply even for a Dare-Death MMC that went berserk involuntarily—or even if it is not berserk (but is unbroken).

18.7 *NO QUARTER/PRISONERS:* In Chinese-vs-Japanese scenarios set in/after 1938, No Quarter (A20.3) is always in effect for both sides and Mopping Up cannot be used.

18.71 *INTERROGATION:* For Interrogation purposes, G.M.D. Personnel are always considered to be in a "neutral" country while Red Chinese are always considered in a "friendly" country.

18.8 *DYO:* Purchasing *both* Red and G.M.D. Chinese for a scenario vs the Japanese is NA. The presence of ≥ one 5-3-7 squad in the Chinese OB precludes the purchase of another Chinese squad *type* for that scenario, and vice-versa. 5-3-7 squad(s) may be purchased only for scenarios set in 11/43-3/45 in Burma (see also 18.81).[48] Red Chinese may not be purchased for a scenario set in Burma. The BPV of Red Chinese squads and HS is one > their Partisan BPV; that of their crews is one > their Russian BPV. The G.M.D. Leadership Generation factor (H1.8) is "8" [EXC: "6" if the G.M.D. Majority Squad Type (E.4) is 5-3-7]. The Chinese player may not purchase a motorized-unit OB (H1.4), paratroopers or gliders.

18.81 *BURMA:* Prior to making purchases for a G.M.D.-vs-Japanese scenario set in 3-5/42 or 11/43-3/45, make a dr. If that Original dr is ≤ 3, the scenario is considered set in Burma. Otherwise it is set in China.

18.82 *OBA:* The Chinese player may purchase neither Bombardment nor Barrage (Red Chinese cannot use OBA at all; H1.27). The Scarce- or Plentiful-Ammunition status of G.M.D. OBA (18.42) is based on the *current* Majority Squad Type of its OB at the time of that battery's purchase.

18.83 *AIR SUPPORT:* The G.M.D. player may purchase Observation Planes (E7.6) only for OBA of ≥ 100mm, and only for scenarios set in 1944-45. The Red Chinese player may not purchase Air Support.

18.831 *NAPALM:* G.M.D. FB may use napalm as if they were U.S. (17.4) [EXC: availability is limited to 7/44-45 in Burma and 4-8/45 in China (see 18.81)].

CHAPTER G FOOTNOTES

1. *G.6 AMBUSH:* It was almost impossible to move through such terrain without making noise; hence the defenders were less likely to be caught offguard by approaching enemy troops.

2. *G.7 RADIOS:* The damp tropical climate had a deleterious effect on voice radio sets. Moisture and corrosion affected circuits and metal contacts, altered frequencies, and occasionally knocked out sets completely. Moreover, the heavy jungle itself could block the waves transmitted by some of the less powerful radios.

3. *G.8 TRIP FLARES:* Since the light of starshells and IR often could not penetrate the canopy of foliage in the jungle, trip flares were sometimes used to detect enemy movement. These flares were actually incendiary grenades and incendiary instructional bombs, with trip wires attached.

4. *1.1 THE JAPANESE:* The rationale behind most of the rules for the Japanese should be self-evident. Moreover, much has been written about the "fanatical" characteristics of the Japanese fighting man in WW2, so there is no need to go into detail on it here. Suffice it to say that his incredible courage in the face of even certain death and his willingness to die rather than be taken alive were based on three main factors: having been raised in a highly regimented society with little regard for the individual; the iron discipline enforced in the military; and *Bushido*, the code of the *Samurai*. *Bushido* stressed unquestioning bravery and loyalty, the unimportance of the individual, that failure in battle demanded death, and that capture by the enemy was unthinkable. Together all these produced what some have called the best infantry in history.

It's also interesting to note that the pre-war Japanese Army viewed the Soviet Union as its main potential foe, and its organization and tactics were designed primarily for a war along the Soviet-Manchurian frontier. (Contrary to popular belief fostered largely by Allied propaganda, the Japanese did not spend the 1930s training for jungle warfare.) Aware that Soviet manpower vastly outnumbered their own, the Japanese devised tactics that would provide maximum advantage for their smaller army, such as: utilizing night attacks whenever possible in order to minimize casualties; the maximum use of deception, speed, surprise and infiltration to put and keep the enemy off balance; and great emphasis on sniping, which can enable one man to pin down many times his own number (in theory each Japanese squad contained two or three snipers—and even LMG were used for sniping, some being equipped with scopes for that purpose). On the other hand, and counterproductive to the principles of force preservation, was the obsession with the perceived advantage of attacking at all times (even when a defensive posture was obviously more prudent) and the conviction that the ultimate aim of an attack was to overwhelm the enemy in hand-to-hand combat. These notions caused the Japanese tremendous numbers of unnecessary casualties, and only late in the war did they finally accept the fact that Allied firepower had bankrupted such tactics.

5. *1.4 SMC:* The rationale behind having Japanese leaders wound rather than break is twofold. First, and most obviously, it would seem quite uncharacteristic (and ahistorical) to have the inheritors of the *Samurai* tradition flee (i.e., rout) from the enemy. It's hard to imagine an Imperial officer casually submitting to such a horrendous loss of face. Second, the Japanese officer's code of conduct and distinctive sword made him an obvious target; in fact, Allied troops—especially snipers—were often instructed to fire on them whenever possible. Hence, Japanese leaders should tend to be eliminated from play more quickly than those of other nationalities.

6. *1.411 ARMOR LEADERS:* In most armies, AFV crews were considered highly trained specialists too valuable to squander as infantry, and were often under standing orders to move to the rear if their vehicle was rendered *hors de combat*. To the Japanese, however, infantry combat reigned supreme, and dismounted crews were expected to continue fighting on foot. Hence an "unsaddled" Japanese tank officer would not hesitate to carry on as an infantry leader.

7. *1.421 T-H HEROES:* The Japanese employed specially trained tank-hunter troops to augment their infantry's poor anti-tank capabilities. These men, sometimes referred to as "human bullets" and often organized into teams found mainly in rifle companies and regimental engineer units, came to be used quite extensively. Their role was to ambush or close-assault enemy AFV, using MOL, mines, DC, and various other weapons that became available as the war went on. However, even if weaponless they were to attack in an attempt to immobilize the AFV by any means possible, including the use of mud to cover the AFV's vision devices and jamming the tracks by inserting stout poles into the running gear.

FOOTNOTES

8. *1.4231 ATMM:* Unlike the German ATMM, which utilized the shaped-charge (HEAT) principle to make it quite lethal, the Japanese version contained a relatively small amount of explosive and was not a HEAT-type weapon. It was more like a mini-DC, and was fairly ineffective against any but light (i.e., thinly armored) AFV. For game purposes a successful ATMM dr does not necessarily mean the T-H Hero is actually using an ATMM; rather, it abstractly represents his possessing any weapon that offers a better chance of knocking out that particular type of AFV. Depending on the type of AFV, this could be an ATMM, a MOL, an A-T mine, a "lunge mine" (a powerful shaped-charge on the end of a long wooden pole), a hand-thrown shaped-charge grenade, or any of the various large satchel/box charges developed by the Japanese for the human A-T role. The dr is treated as an ATMM dr strictly for simplicity, there being no real need for the rules to differentiate between the various types of weapons available to tank-hunters at any given time.

9. *1.425 T-H HERO LOSS:* Needless to say, the casualty rate among tank-hunters was extremely high. In many cases they were not *meant* to die as a result of carrying out their assigned task, but some of their weapons by their very nature did cause death to the user. Too, T-H Heroes are abruptly removed from play for simplicity, since leaving them onboard indefinitely would require a further host of special rules and would be ahistorical given their special role and the "one-shot" weapons they used.

10. *1.6121 A-T SET DC:* This represents the late-war use of various items such as large-caliber artillery shells, aerial bombs, naval mines and torpedoes, and even drums of gasoline, which were buried in roadways as part of the increasingly desperate attempt by the Japanese to stem the onslaught of Allied armor. They were usually detonated by remote control. Occasionally, bombs were placed in foxholes along with a volunteer who was to set off the bomb by striking its fuze with a rock or hammer as an enemy AFV passed overhead, but this method achieved little success and hence is not represented in the game. The use of A-T Set DC vs Russians is not allowed on the assumption that the Soviet blitzkrieg, with its tank columns advancing sixty miles a day in some cases, simply moved too rapidly to allow the Japanese time to organize much in the way of set defenses.

11. *1.64 HAND-TO-HAND CC:* The Japanese soldier was taught to view his "righteous bayonet" as his own Samurai sword, and that the ultimate goal of all combat was to engage his enemy in hand-to-hand fighting. He generally received a great deal of training in hand-to-hand combat—training that was both physical and mental ("spiritual", as they called the latter). In view of this and the fact that normal CC mechanics would often actually discourage the Japanese player from aggressively seeking out CC opportunities (especially vs American squads with their higher FP), it was decided to make their CC hand-to-hand and to give them an extra −1 DRM. These act as game incentives to re-create their historical tactics.

12. *2.21 DENSE-JUNGLE ENTRY:* To "realistically" portray the difficulties of movement through dense jungle would require the use of Minimum Move for each such hex entered (or two MF if using a path). The excitement level of scenarios using this MF cost would be dreadful, to say the least, and would be little improved even if the cost of dense jungle were changed to three or four MF. Therefore, woods entry costs have been retained, solely for the sake of playability.

13. *2.24 MORTARS IN DENSE JUNGLE:* The thick foliage canopy of dense jungle generally prevented the use of indirect fire by guns beneath it, because the projectiles could detonate if they hit even a few leaves.

14. *3.6 EC & BAMBOO:* Bamboo stores a large amount of water in its hollow stems during the wet season, but when this water has been exhausted in the dry season the plant becomes extremely flammable.

15. *4.1 PALM TREES:* Palm trees, while much taller than the fruit trees normally found in orchards, have significantly less foliage. Moreover, the fronds are concentrated at the very top of the trunks, thus providing less of a hindrance to sight. For this reason, and for the sake of simplicity, the one-level height of orchards has been retained.

16. *5.5 COLLAPSE PTC:* The Collapse PTC represents the chance of falling debris temporarily distracting, blocking the view of, and/or physically pinning down the occupants of the hut. In both cases, normal morale and leader modification do not apply on the assumption that the units involved cannot control or influence the effects of the collapse. When an Inherent crew fails a Collapse PTC it is assumed that debris has blocked the driver's vision (and, in the case of an OT AFV, has cluttered up its interior); hence the vehicle has to stop and the crew must relinquish some degree of cover as they hastily clear it away.

17. *5.51 HUTS & FORTIFICATIONS:* Since wire and panjis cannot be created or moved during play, they obviously can appear in a collapsed hut Location only if the hut was already collapsed at the start of play (i.e., by SSR).

18. *6.1 KUNAI:* This is a type of tall (5-7 ft. high), coarse grass found in SE Asia and nearby regions. Generally speaking it is quite common in that part of the world, often being found in jungle "clearings" and sometimes covering broad expanses of otherwise-open ground. The edges of its leaves are sharp and can cause lacerations. Kunai also collectively represents other similar types of growth such as elephant grass.

19. *8.1 PADDY TYPES:* A *Drained* paddy is one that is currently uncultivated; it is not filled with water and has no rice growing in it. "Dry" would perhaps be a more appropriate term for this type were it not for the fact that calling a paddy "dry but muddy" would sound a bit odd. An *Irrigated* paddy is one that is flooded with several inches of water; any rice growing in it is not yet tall enough to affect LOS. An *In-Season* paddy refers to one in which the rice plants are at their mature height. It should be noted that the rice-paddy depictions and rules are highly abstracted. For example, the banks shown on the overlays are just tools for LOS and movement rules; the actual paddy banks are assumed to be anywhere within the area represented by the paddy hex (which is why units on a Bank counter are not defined as being on any specific bank/hexside). Each hex should be visualized as generally containing more than one separate paddy, and thus a corresponding number of different banks.

20. *9.1 PANJIS:* Panjis are split bamboo stakes about two feet long, sharpened and driven into the ground at an angle of 45 degrees facing in the same direction. They were usually emplanted to form a dense belt of stakes perhaps five feet in width. The function of a panji belt was akin to that of wire: to channel or impede movement. While wire was a more effective impediment, it was often unavailable. Moreover, panjis were more dangerous to cross, especially when hidden in the undergrowth.

21. *9.5 ABOVE/BENEATH PANJI COUNTER:* A unit above the Panji counter is considered to be within the panji belt, while one beneath it is "behind" or "past" the belt and free of its impediments. Hence the one MF/MP cost of going from above to beneath the Panji counter (or vice-versa) actually represents the extra time and difficulty involved in negotiating the belt.

22. *11.1 JAPANESE CAVES:* While it is true that other nationalities utilized cave positions on occasion, the Japanese used them far more extensively than anyone else. Allowing any side in a DYO scenario to purchase caves would only lead to their abuse due to their formidableness in the defense. Of course, a SSR in a printed scenario can always allow caves to be used by another nationality, should it be necessary for historical accuracy.

23. *11.31 HIDDEN ACTIONS:* The way caves and cave complexes are treated in game terms requires that much of what the Japanese player does with his subterranean units will not be verifiable by the opponent. This is unfortunate as it can enable an unscrupulous player to cheat, but it is ardently hoped that in the interest of fair play the Honor System will be faithfully adhered to. Should the Allied player wish to have a verifiable record of hidden Japanese actions, the following option is suggested. Whenever a Japanese unit conducts an activity while hidden, or becomes hidden as it changes Location, its owner records that unit and action on a sheet of paper (using a separate sheet for each Player Turn). At the end of that Player Turn he hands the sheet, in a sealed envelope marked with the Player Turn number, to his opponent. At game end the envelopes may be opened and all actions verified.

24. *11.83 MORTAR FIRE FROM CAVES:* Most mortars used an elevation of 45° when firing at maximum range, and had to increase elevation (/reduce the number of propellant increments) to fire at shorter ranges. The Japanese light mortar, however, used the same 45° setting regardless of the desired range, and thus could be positioned a short way into a cave and still be able to fire at all ranges.

25. *11.8331 CLIMBING ALONG NON-CLIFF HEXSIDE:* This rule attempts to re-create the tactic of approaching a cave from above on the hillside, then using a rope to lower a demo charge to the cave's mouth.

26. *11.851 REVEALING CAVES WITH WP:* The Americans found that WP grenades/shells bursting inside a cave were useful in revealing other higher-level openings, since WP's hot smoke naturally tends to rise.

27. *12.111 STUN VCA CHANGE:* The Stun result is assumed to occur vs the LC's pilot, and the VCA change represents the LC circling aimlessly until his position is remanned.

28. *13.1 OVERLAY SETUP:* Prior to setting up the Beach and OCEAN overlays, players may wish to butt some unused board (perhaps upside-down) against the playing area so that the overlays will lie on top of it.

29. *13.14 EFFLUENT:* The water in an Effluent hex is considered too shallow to cause any significant water-type game effect.

30. *13.42 WADING:* Some might question the necessity of rules for Wading when the Fording rules already exist. Suffice it to say that the penalties and restrictions of Fording (specifically, being allowed to move only one hex per Game Turn while continuously subject to Hazardous Movement) were found to be too severe in this application, and would have made a Tarawa-type landing impossible to re-create. A Wading unit is—as the term implies—one whose feet/wheels/tracks are actually touching bottom in the shallow water.

31. *13.46 OCEAN LOS & ACQUISITION:* These rules reflect the fact that in real life the assaulting craft did not appear "from offboard" (i.e., out of nowhere), and most likely were being observed and taken under fire at a distance > that represented by an OCEAN overlay. The DD tank is an exception because in deep water its raised screen hid its true identity, and made it so innocuous-looking that it drew little enemy fire.

32. *13.6 SEAWALLS:* Seawalls are built to prevent erosion of the coastline. Generally they do not rise above ground level on the landward side, which is why the special rules for movement, LOS and TEM are necessary.

33. *14.261 SAN:* The increased SAN of the side making the assault landing represents gunfire from other landing craft such as LCF, LCG, LCI(G) and LCS, which in general carried a number of 20mm/40mm automatic weapons (plus, in some cases, guns of ≥ 76mm or rockets). These craft were used to provide direct fire support from close-in offshore until the initial wave of LC/LVT touched down. They generally remained further offshore than the distance represented by an OCEAN overlay, so their contribution to the assault has been abstracted.

34. *14.51 TETRAHEDRONS:* Tetrahedrons (aka "hedgehogs") were logs or steel beams lashed/bolted/welded together at angles to each other, and set up in shallow water to puncture the hull of LC (or at least impede their landing). Often, a contact mine was attached at the top to make them more lethal. The game piece also generically represents other beach obstacles of similar function (e.g., cribs, which are large boxes made of logs/wire and filled with stones/cement).

35. *14.6 NAVAL OBA:* Naval gunfire was crucial to the success of a number of amphibious operations during WW2. The greatest effectiveness was achieved by the U.S. and Royal Navies which, through the development of shore fire-control parties, were able to bring even battleships and heavy cruisers to the support of the infantryman. A ship providing naval indirect fire required a CIC (Combat Information Center) to plot its own position continuously, convert that position to military grid coordinates, and calculate (by hand) the required trajectory and fire-control data for the ship's guns in response to gunfire support requests from onshore (or from a spotter aircraft).

36. *14.61 SHORE FIRE-CONTROL PARTIES:* Only the U.S. and Royal Navies were able to develop, train and equip special landbased forward-observer teams for naval indirect fire.

37. *14.611 SFCP RADIO:* The HF (High Frequency—as opposed to UHF or VHF) radio used by a SFCP required a generator (instead of batteries) for power. In addition it needed to be grounded to earth, further decreasing its mobility.

38. *14.63 NOBA BATTERY ACCESS:* A ship assigned to gunfire support generally had only one SFCP or observation plane, so could remain "available" to its observer. However, the time interval involved in responding to a fire mission request could occasionally be significant (in game terms) as the ship repositioned itself, turned to unmask turrets or dealt with other strictly naval concerns.

39. *14.65 NOBA BLAST AREA:* The relatively flat trajectory of naval guns plus the residual effects of the ship's roll (even after gyrostabilization) combined to make the Blast Area of NOBA elongated in comparison to that of field artillery, but with an effective decrease in lethality at the extreme ends of the elongation due to the lower mean number of shells impacting at those points. (The technical term for this is "range bias".)

40. *14.66 REVERSE SLOPES:* The high velocity and relatively low elevation limits of naval guns give their shells a low, flat trajectory compared to the howitzers used by field artillery. While the latter can often lob shells onto the far side of a hill (indeed they are designed specifically to have this capability), naval guns cannot.

41. *14.672 NOBA IR:* Ships with guns of ≥ 150mm almost always carried other armament capable of firing IR. Hence such a ship could fire an IR even in the midst of conducting some other fire mission.

42. *14.68 SHIPBOARD OBSERVER:* In lieu of using land-based or aircraft observers, ships could provide fire support if their fire-control directors, which were equipped with very powerful optical range-finding equipment, had a LOS to a target. The ship's fire-control "computers" were designed to take pointing and range information from the directors, combine it with ballistic data and the ship's course and speed, and rapidly yield a fire-control solution which pointed and elevated the ship's main battery to engage the target. However, ship captains not in touch with an observer were very reluctant to fire until sure they were actually engaging the enemy and not a friendly force.

43. *17.11 U.S.M.C. SQUAD TYPES:* Although more than half of the men in the early-war Marine rifle and BAR squad were authorized the M1 Garand semi-automatic rifle, they were in fact equipped with the old bolt-action Springfield '03. This, plus the fact that the squad contained only 8-9 Marines, explains its relatively low FP in the game. The mid-war rifle squad contained twelve men and the authorized complement of Garands. The late-war rifle squad was designed to break down into three four-man fire teams and the squad leader; however, to have allowed the 7-6-8 to Deploy into three HS would have required more special rules and exceptions than the capability would be worth in game terms, so the idea of Deploying without a leader was adopted to reflect in a direct but simple manner the squad's tactical flexibility.

44. *17.4 NAPALM:* The original type of napalm consisted of aviation fuel mixed with a thickening agent to provide a form of jellied gasoline. It was generally carried by aircraft in auxiliary fuel tanks, and ignited by incendiary grenades or small incendiary bombs attached to the tanks. Over two-thirds of the napalm used by the U.S. Army Air Force during WW2 was dropped in the Pacific theater. While at the time it was believed to be a devastating weapon (both physically and psychologically) vs enemy personnel, later tests revealed that it was not really as effective as had been thought. Nor did it even approach the effectiveness of Napalm-B, its postwar replacement.

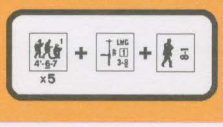
45. *18.1 G.M.D. CHINESE:* "G.M.D." stands for *Guomindang* (aka *Kuomintang* [KMT], and pronounced "gwo-min-dong"), the Nationalist Party of Generalissimo Jiang Kai-shek. The 5-3-7 represents the U.S. trained-and-equipped personnel of X-Force and Y-Force, which fought in Burma and China in the latter part of the war. The 4-4-7 represents normal elite Chinese troops—"elite" here meaning reasonably well trained, equipped and led. Known as "The Generalissimo's Own" and personally loyal to him, many of these units were squandered—against the better judgment of Jiang's German advisors—in and around Shanghai and Nanjing (Nanking) in 1937. Other divisions of this elite force were held in reserve to keep watch on the Communists, and only occasionally saw action against the Japanese. The 3-3-7 and 3-3-6 MMC represent the mass of China's eventual 300+ divisions (which averaged only about 6,000 men apiece, including numerous coolies). These, comprised largely of forcibly conscripted peasants and controlled by provincial governors, bore the brunt of the war with Japan. The vast majority (about 90% of the Nationalist divisions) were poorly trained and under-equipped, suffered from a dearth of good leadership, an almost total lack of medical facilities and a high incidence of malnutrition. Nevertheless, the *Bing* (Chinese equivalent to "GI") fought on in defense of his home and land, occasionally inflicting surprising defeats on the often overconfident and rigid-thinking—and always outnumbered—Japanese.

The two-tone color of Chinese counters has no special significance in rules terms. It simply enables both G.M.D. and Red Chinese (i.e., partisan) units to use the same set of SW in stacks, without the presence of those SW being made obvious by their different color.

46. *18.44 VEHICLE/GUN VP:* With ordnance and equipment so scarce, their capture by the enemy resulted in a tremendous loss of face for the person(s) responsible. In addition, since only the best divisions and armies possessed quantities of field artillery (which was one reason they *were* the best), losing any of it caused the commanding general (who effectively "owned" everyone and everything under his command) to forfeit a proportionate amount of political prestige and power.

47. *18.6 DARE-DEATH SQUADS:* Generally speaking, a marked aversion to offensive action existed at all levels of the Chinese Army. However, in an attempt to compensate for this, many battalion commanders formed a special platoon of "dare-death" (*gan si dui*—also variously translated as "dare-to-die", do-or-die" or "against-all-odds") squads or teams. These units, whose existence was widespread despite no official authorization from the High Command, were made up of patriotic, anti-Japanese volunteers. They were used as shock troops, with close-quarter fighting their specialty. *Gan si dui* teams were employed by Red as well as by G.M.D. forces, but evidently were not used in American-trained outfits.

48. *18.8 5-3-7s & BURMA:* Y-Force, part of whose troops were U.S. trained-and-equipped (and hence are represented in the game by 5-3-7s), actually fought in China's Yunnan province during its nine-month push into northeastern Burma. However, for DYO purposes both Y-Force and the Japanese who opposed it are considered to be in Burma.



H

H. DESIGN YOUR OWN

1. PURCHASING AN OB

1.1 UNIT PURCHASES: In order to purchase forces for a Design Your Own (DYO) scenario, the players must first agree on the "current" historical month and year. They then mutually agree on their respective total BPV allotments, the board configuration, and Victory Conditions. Players should also consult the pre-game sequence of the ASOP, and for Desert scenarios see F11.701 and F12.3-.4. With this settled, they can proceed to buy their pieces. It is up to the players to decide if their buying will be done secretly or in the open.[1] Purchasing from the various piece categories must be done in the following order: Infantry first, then ordnance, then vehicles, then OBA, and then Fortifications. Any points remaining after purchasing Fortifications (or declining to do so) can then be used to purchase more Infantry and thereby possibly qualify for additional SW/leaders. A sample DYO Purchase Roster is included as part of this Chapter. As items are purchased/received, they should be recorded on the Roster for future reference and validation by the opponent. The Roster also contains a flow chart illustrating the required Purchase Sequence. Players are invited to photocopy this Roster for repeated use as the need arises.

1.11 COUNTER LIMITS: Pieces (including vehicles with optional armament) may not be purchased in greater quantity than is provided in one game—unless of course, the players have extra pieces and agree that such can be purchased. Each squad type in one game has 26 pieces (ID letters A-Z). The total number of each SW type in one game is given in the "#" line of its SW Allotment Chart. The total number of each vehicle/ordnance type in one game is given in the "#" column of its Listing.

1.12 OPTIONAL VEHICULAR ARMAMENT: Optional vehicular armament may not be purchased in greater quantity, nor in any different arrangement (in the case of a vehicle with more than one optional weapon) than is provided in the countermix of one game—unless both players agree otherwise. If a player purchases all the vehicles of a particular type (as per that vehicle's "#" column—or alternatively, whole multiples of that #), all optional armament carried by them is automatically included although the BPV cost of these weapons must still be paid as per 1.41. *[EXC: If the scenario predates the armament's initial date of availability as given in a pertinent Vehicle Note, the vehicle is purchased without that optional armament; use the appropriate "Disabled" counter to show the armament's non-functioning status. The optional U.S. Sherman-mounted FT is also an exception since it is never indicated on the counter; i.e., it is never automatically present regardless of how many Shermans are purchased.]*

1.13 PURCHASE MECHANICS: It is not required that points be spent in each category; zero points may be spent in one or more categories if the player so desires. A player may decline to purchase the item(s) indicated by an availability DR, but if he does so he cannot substitute any other item(s) for it, nor can that DR be rerolled. The points thus saved can be used to buy other items further along in the Purchase Sequence. Once a piece has been purchased by recording it on the Roster, it may not be subsequently exchanged for another piece(s) or to increase the player's unspent points.[2] For example, a player who finds that he does not have enough points remaining to purchase the available OBA may not trade in prior purchases so as to gain the necessary points.

1.14 MULTI-PLAYER ASPECT: Whenever the term "player" is used in Chapter H it actually refers to one side collectively in a scenario, as opposed to one of a group of players on the same side playing as a team. For example, 1.5 specifies that if one *side* has ≤ 600 points, it is entitled to one OBA DR; it does not allow four partners, each having 150 points, to each make one DR.



1.2 INFANTRY: Squads and crews may be purchased in any number, within the limits of the player's point allotment and the counter mix. There are no purchase restrictions on mixing different squad Classes of the same nationality in one's DYO OB; i.e., those squads purchased do not have to be all of the same Class (or type of squad within that Class). A Hero (which has no point value) cannot be purchased for a DYO scenario; it must be randomly created from other Personnel types during the course of play (A15.21). Leaders cannot be purchased directly; they are allocated as per 1.8-.84. When a player has finished making his purchases, he may find that he still has points to spend. He may use these points to buy more Infantry (1.7).

1.201 SPECIAL NATIONALITY CONSIDERATIONS: If the scenario involves Japanese units, players should consult G1.66-.664 before purchasing the Japanese OB. For German units in North Africa, see F.6. For the purchase of U.S.M.C. units, see G17.15-.152; for the purchase of Chinese units, see G18.8-.81.

1.202 SKI CAPABILITY: Ski capability (and Winter Camouflage; E4.4) can be purchased for a DYO OB at a cost of two extra points per elite MMC purchased *[EXC: Sissi (A25.73) are ski-equipped as part of their BPV]*. Ski capability may not be selectively allotted to certain Personnel; all elite Personnel of that side must be given ski capability, which is indicated on the Roster by recording in the "MPV ea" column the MMC's BPV (first adjusted as per 1.22-.24, if applicable) increased by two, and by recording "Sk" in the "A/B" column of the same line. When ski capability has been purchased for all elite MMC on a side, all SMC (as well as all crew counters that directly or indirectly result from the purchase of Guns, and all elite HS counters that likewise result from the purchase of vehicles) on that side are also considered to have ski capability at no extra cost.

1.203 WINTER CAMOUFLAGE: Winter Camouflage (E3.712) can be purchased for Infantry at a cost of one extra point per MMC purchased. Winter Camouflage may not be selectively alloted to certain Personnel; all Personnel of that side must be given Winter Camouflage capability *[EXC: may also be obtained via Ski purchase; 1.202]*; use "W" in the Roster's "A/B" column.

1.204 PARACHUTES: For Air Drops $^5/_8$" parachutes can be purchased for a DYO OB at a cost of two extra points per elite MMC purchased. Indicate this on the Roster by recording in the "MPV ea" column the MMC's BPV (first adjusted as per 1.22-.24, if applicable) increased by two, and by recording "P" in the "A/B" column of the same line. $^1/_2$" parachutes have zero BPV, but only one per item to be separately air-dropped can be used.

1.21 RECORDING: The "Infantry" section of the Roster is divided into three subsections: "Elite", "Line", and "Conscript". The Strength Factor of each type of squad purchased is recorded in the "Type" column in its proper subsection, and the actual number of each type purchased is recorded to its right in the "#" column. Line, Green, and all other squads that are neither elite nor conscript are recorded in the "Line" subsection. Where squads with special capabilities (see 1.22-.25) could be confused with other non-specialized squads of the same type, mark their ID letters in the "ID" column.

1.211 MODIFIED POINT VALUE (MPV): The "Infantry" section of the Roster contains one column with the heading "MPV ea", and to its right another called "MPV". In the "MPV ea" column is recorded the sum of the listed (in the "Type" column) squad's BPV (possibly increased as per 1.22-.26) plus the maximum range of its inherent PF/PFk capability (if any; C13.3 and C13.32). This sum is then multiplied by the actual number of that squad type purchased (as listed in its "#" column), and the result is recorded in that line's "MPV" column. See the 1.26 EX.





1.212 CREWS/HS: Although crews can be purchased at this time, the player should remember that later purchases of vehicles and Guns include the necessary crews to man them. Any crews bought at this time are used only as an option to man SW. No more than one HS per type can be purchased per scenario *[EXC: HS received as part of purchased vehicles; e.g., British Carrier or German sMG halftrack]*. Crews/HS do not count toward the Equivalent number of squads a side has for determining the allocation of SW/leaders (1.8); therefore, entries in the "#" column for crews/HS purchased should be circled so that later they will not be mistakenly added in when the "#" column is totaled.

© 2000 Multi-Man Publishing, LLC




1.22 ASSAULT ENGINEERS: Assault Engineers are purchased primarily in order to receive FT/DC and to enhance that side's SMOKE grenade capabilities. Only elite *squads* of that side's nationality can be purchased as Assault Engineers *[EXC: SS squads may be purchased as Assault Engineers only if other SS squads form the majority of that side's squad OB]*. This is done by recording the type and ID letter of each such squad on the Roster and by paying twice the normal BPV (only) cost for each. An "A" is also recorded in the "A/B" column of the Roster to denote Assault Engineer squads. Only Assault Engineers count toward allotment of FT/DC (see 1.83). In addition, the SMOKE exponent of an Assault Engineer is increased by two (even if it were "0").

1.23 SAPPERS: Sapper squads can be of any Class, and are purchased by paying 1.5 (FRU) times their normal BPV (only) cost. Indicate Sappers on the Roster by putting an "S" in the "A/B" column of their entry line. Sappers' Equivalency (1.74) is equal to their purchased number, unless elite or conscript. HS/crews cannot be purchased as Sappers.



1.24 COMMANDOS: Only elite *squads* of that side's nationality can be purchased as Commandos. A squad designated as a Commando costs 1.5 (FRU) times its normal BPV (only). Indicate Commandos on the Roster by writing in the "MPV ea" column the squad's increased point value and by recording a "C" in the "A/B" column of the same line. Commandos are always Stealthy (A11.17), have Scaling ability (B23.424), and have an ELR of 5; however, their Morale Factor is considered underlined for purposes of ELR failure only if actually underlined on the counter (A1.23). Gurkhas (A25.43) are always purchased as Commandos.

1.25 *MOL:* MOL capability can be purchased for a DYO OB at a cost of one extra point per MMC purchased. MOL may not be selectively allotted to only certain Personnel however; all Personnel of that side must be given MOL capability, which is indicated on the Roster by writing in the "MPV ea" column the MMC's BPV (first adjusted as per 1.22-.24, if applicable) increased by one and by recording an "M" in the "A/B" column of the same line. When MOL has been purchased for all MMC on a side, all SMC (as well as all crew/HS counters that directly or indirectly result from the purchase of Guns/vehicles) on that side are also considered to have MOL capability at no extra cost.

1.26 MULTIPLE CAPABILITIES: Should a player wish to purchase squads having more than one of the above-listed capabilities, the MPV of each such squad is calculated by first multiplying its original BPV (as applicable per 1.22-.24), then by adding to this any extra points for MOL/PF/PFk. All multiplication must be done for a squad before any addition; otherwise its MPV will be higher than necessary.

EX: Using an 8-3-8 (BPV 16) as the squad-type, an Assault Engineer-Sapper has a MPV of 48 (16 × 2 × 1.5). A Commando-Sapper's MPV is 36 (16 × 1.5 × 1.5). The ultimate extravagance in specialized squads, an Assault Engineer-Sapper-Commando with MOL capability, has an MPV of 73 (16 × 2 × 1.5 × 1.5 + 1). These totals will be higher (+1, +2, or +3) if the squad also has inherent PF/PFk capability (1.211).

EX: Assume that the German player has 1000 points with which to buy his OB for a September '44 DYO scenario vs Russians. He decides to buy seven 4-6-8 squads (of which four will be Sappers), twelve 4-6-7 squads, ten 4-3-6 squads, and three 8-3-8 Assault Engineers. In the "Infantry" section of the Purchase Roster each of these squad types will be recorded as follows:

4-6-8: He writes "4-6-8" under "Type" in the "Elite" subsection, "3" next to it in the "#" column, "15" (13 [BPV] + 2 [PF range]) in the "MPV ea" column, and "45" (15 [MPV] × 3 [#) in the "MPV" column. The "ID" and "A/B" columns are left blank.

4-6-8 Sapper: On the next line down he writes in each column from left to right: "4-6-8", "4", "22" (13 [BPV] × 1.5 [Sapper: FRU] +2 [PF]), "88", "A-D" (the ID letters of these squads), and "S" (to indicate that they are Sappers).

8-3-8 Assault Engineer: On the next line are recorded "8-3-8", "3", "34" (16 [BPV] × 2 [Assault Engineer] + 2 [PF]), "102", and "A" in the "A/B" column. If normal 8-3-8 squads had also been purchased, the ID letters of the Assault Engineers would have to be recorded.

4-6-7: Moving down to the "Line" subsection, the following are entered from left to right: "4-6-7", "12", "12" (10 [BPV] + 2 [PF]), and "144". The "ID" and "A/B" columns are left blank.

4-3-6: In the "Conscript" subsection are recorded "4-3-6", "10", "7" (5 [BPV] + 2 [PF]), and 70. The "ID" and "A/B" columns are left blank.

The "MPV" column is now summed to find the total MPV spent in the 1st Infantry Purchase. In this case the sum is 449: this number is recorded at the bottom of the "MPV" column, and also subtracted from the initial (1000) point allotment in the "Infantry" line of the Roster's "Points Available" section.



1.27 PARTISANS: Partisans cannot be designated as Assault Engineers or Sappers, but can be purchased with Commando/MOL capabilities. Even though Partisans have a 5 ELR in play, they are considered to have a 2 ELR for determining one's announced ELR (1.71). Only the following types of Guns may be purchased for Partisans: MTR ≤ 82mm, AT ≤ 57mm, INF ≤ 76mm; in addition, the Rarity Factor of such Guns is increased by .4 (e.g., a .9 mortar has a RF of 1.3 for Partisans). Neither vehicles *[EXC: trucks and Horse-Drawn Transport]* nor OBA can be purchased for Partisans; nor can the 10% point expenditure for a motorized unit (1.4) be made for them.

1.28 ELR GENERATION: In DYO scenarios, if unsure of an appropriate ELR, use the ELR Chart to determine one based on nationality and time frame of the scenario.[3]

ELR CHART

Time/ Nationality	thru 1938	1/39-8/39	9/39-12/40	1/41-6/41	7/41-12/41	1/42-6/42	7/42-12/42	1/43-6/43	7/43-12/43	1/44-6/44	7/44-12/44	45
German	—	—	3	3	4	4	4	4	4	3	3	2
Russian	—	—	2	2	2	2	3	3	3	3	4	4
American	—	—	—	2	2	2	3	3	4	3	4	4
British*	—	—	3	3	3	3	4	4	4	4	4	3
Italian	—	—	1	1	2	2	2	1	0	1	1	1
Japanese	3	3	3	4	4	4	4	4	4	4[1]	4[1]	4[2]
G.M.D.**	2[3]	1[3]	1[3]	1[3]	1[3]	1[3]	1[3]	1[3]	1[3]	2	2[4]	2[4]
French***	—	—	2[5]	3	3	2	2	3	3	3	3	3

* Includes all Commonwealth, Free French, and forces of other conquered countries fighting with British backing.

** Red Chinese use is NA.

*** Free French use British #.

1 "3" vs Chinese

2 "3" vs British/Chinese; "2" vs Russians

3 Increase this # by one if G.M.D. Majority Squad Type (E.4) is Elite

4 Increase this # by one of G.M.D. Majority Squad Type (E.4) is Elite and/or by one if scenario is set in Burma

5 Increase this # by two if the scenario is set in Norway

Axis Minors are always two less than Germans *[EXC: Finns' ELR always equals Germans']*

Non-Italian Allied Minors are always 3



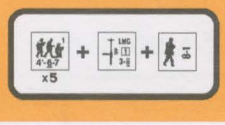
1.29 SAN: Each side in a DYO scenario is assumed to have a SAN of 2 unless it spends extra points to raise this number. Each increase of one in the SAN costs ten points. Any points spent to increase the SAN are subtracted in the "Points Available" section, to find the current subtotal of unspent points. The BPV of a DYO-purchased SAN is doubled for a night scenario. For Seaborne Assault see G14.261.

EX: In order to have a SAN of 3, the player must spend ten points. For a SAN of 7 he must spend 50 points.



1.3 ORDNANCE: If a player wishes to buy one or more $^{5}/_{8}$" Guns, he must first make an Availability DR on the Availability table. The RF given by that Availability DR is the highest "current" RF (i.e., rarest Gun) that the player may purchase. Those with a higher current RF cannot be bought, while those whose current RF is ≤ that indicated by the DR can be. The BPV of a Gun includes the purchase price of its crew; this crew is not recorded in the "Infantry" section of the Roster.

© 2000 Multi-Man Publishing, LLC



AVAILABILITY TABLE

Current RF	Availability DR	Armor Leader Available
1.6	≤ 2	10-2
1.5	3	9-2
1.4	4	9-1
1.3	5	8-1
1.2	6	—
1.1	7	—
1.0	8, 11	—
.9	9, 10, ≥ 12	—



1.4 VEHICLES: Vehicles are purchased in the same manner as Guns, using the Availability Table; i.e., an Availability DR is made and the player may purchase any vehicle whose "current" RF is ≤ that RF. The BPV of a vehicle includes the price of its crew/HS, if any is required; this crew/HS is not recorded in the "Infantry" section of the roster. *Prior* to making his Vehicle Availability DR, a player *[EXC: Partisans]* may spend 10% (FRU) of his initial point allotment to add .2 to whatever RF his Vehicle Availability DR will allow him to use (e.g., a maximum RF of 1.2 becomes 1.4). This 10% expenditure (which represents a motorized unit OB) also allows him to always buy motorized vehicles for his towed Guns, even if his Vehicle Availability DR would not enable him to buy them (see 1.441). This 10% expenditure also grants him the possible availability of an OP tank (1.46). For LC, see G12.9. For bulldozers, see G15.3.

1.41 OPTIONAL ARMAMENT: If a purchased vehicle is listed as having "current" optional armament, and the player wishes to equip this vehicle with it, he must make another Availability DR *[EXC: if he buys the total number of these vehicles in the game; 1.12]*. The pertinent Vehicle Note(s) will give the optional weapon's RF and date of availability, and if the DR is successful the vehicle is assumed to be carrying the optional armament. Extra points must be spent for this armament however; the BPV of each optional weapon is equal to its normal IFT FP. Excepting 1.12, one Availability DR must be made for *each* vehicle for which optional armament is desired; however this one DR determines the availability of all optional armaments listed for that vehicle. The per-vehicle BPV for Winter Camouflage (E3.712) is one extra point recorded in the "Opt BPV" column of the Roster (with "W" added in the "for" column; however if a player wishes to use any vehicular Winter Camouflage he must purchase it for all allowed vehicles in his OB.

1.42 SCHUERZEN & GYROSTABILIZERS: These features can be used only with certain AFV whose wreck sides contain an "Sz" or "G" symbol (see D11). If a player wishes an allowed AFV to have one of these features, a dr for this AFV must be made after it is purchased, using the following table.

SCHUERZEN & GYROSTABILIZER TABLE

dr/date	42	1-6/43	7-9/43	10-12/43	1-3/44	4-6/44	7-12/44	45
≤ 1	G	G	Sz G	Sz G	Sz G	Sz G	Sz G	Sz G
2	—	G	G	Sz G	Sz G	Sz G	Sz G	Sz G
3	—	—	—	—	Sz G	Sz G	Sz G	Sz G
4	—	—	—	—	—	Sz	Sz	Sz G
5	—	—	—	—	—	—	Sz	Sz
≥ 6	—	—	—	—	—	—	—	—

Sz = Schuerzen-equipped G = Gyrostabilizer-equipped

A Gyrostabilizer dr receives a +1 drm if the AFV is Lend-Lease using a non-U.S. crew. If these features are received, points must be spent for the Sz or G equipping the AFV. Sz costs three points per AFV; G costs five per AFV.



1.43 ARMOR LEADERS: A player may make one Armor Leader DR on the 1.3 Availability Table for every complete multiple of three AFV he purchases—after the availability of all optional armament/equipment on these three AFV have been determined. For this Availability DR a Carrier, or an AFV that is not fully-tracked, counts as only ½ an AFV, while an OP tank (1.46) counts as a non-AFV. The following DRM applies, according to nationality and date:

Armor Leader DRM Chart

Year	thru 38	39	40	41	42	43	44	45
German	—	+2	+1	0	-1	-1	-1	0
Russian	—	+3	+3	+2	+1	0	0	-1
British	—	—	+2	+1	0	-1	-1	-1
U.S.	—	—	—	+3	+3	+1	-1	-1
Italian	—	+3	+3	+2	+1	+1	0	0
French/Vichy[1]	—	—	+2	+2	+2	—	—	—
Allied Minor[1]	—	+3	+3	+3	—	—	—	—
Axis Minor	—	—	—	+2	+1	+1	0	0
Japanese	+2	+2	+2	+2	+1	+1	0	0
G.M.D.[2]	+3	+3	+3	+3	+3	+3	+2[3]	+1

[1] Allied Minors after 41 and Free French use British DRM

[2] Red Chinese use is NA

[3] Decrease this # by one if scenario is set in Burma

An Armor Leader Availability Final DR allows the use of one Armor Leader of the type to the right of that Final DR on the 1.3 Table. If an Armor Leader is received but with a lower morale than the inherent crew of all three AFV, one whose morale equals that of the lowest inherent crew morale in those three AFV may be substituted, provided the leadership DRM does not also improve. An Armor Leader received must be used in one of the AFV that allowed that Armor Leader Availability DR.

EX: After purchasing ordnance, the German player must next decide if he wishes to buy vehicles. He feels he should, so he makes an Availability DR which unfortunately results in a 10—thus allowing him to choose from only those vehicles having a RF of .9 in September '44. [If he had made the extra 10% expenditure for a motorized unit, his usable RF would instead be 1.1 (.9 + .2).] He opts for three PzKpfw IVH (ID A, B, and C), with a BPV of 73 each, and records them individually on the Roster (since one might receive an Armor Leader and some may carry Sz/AAMG). Each is recorded as follows: "PzKpfw IVH" in the "Name" column, "73" in the "BPV each" column, "1" in the "#" column, and its respective ID letter in the "ID" column. He then makes another Availability DR, this time for the optional AAMG on tank "A", which as per German vehicle note B has a 1.3 RF. His DR is a 5, so on the line for PzKpfw IVH A he writes "2" and "AAMG" in the "Opt BPV" and "for" columns respectively. Next he makes a dr to see if tank A is Schuerzen-equipped; the resulting 2 determines that it is, so his entries in the "Opt BPV" and "for" columns are changed to "2 + 3" and "AAMG + Sz" respectively. He repeats this sequence to see if his two other tanks are AAMG/Sz equipped, but neither are. Now he rolls an Original 5 on his Armor Leader Availability DR which, modified to a 4 (-1 for German in 1944), gives him a 9-1; he records "9-1" in the Armor Leader column for tank A. The total BPV of each tank is now recorded in the "BPV" column (78 for tank A, 73 each for the other two), and the column is summed to find the total BPV of his vehicles. This figure ("224") is written at the bottom of the column and also subtracted from the current subtotal in the "Points Available" section of the Roster.





1.44 HORSES & WAGONS: The BPV cost of a wagon/sledge is five points. Horses can be purchased only in squad-sized counters, at a BPV cost of five points each. No Vehicle Availability DR is necessary to purchase these units.

1.441 If a player's Vehicle Availability DR does not enable him to purchase a motorized vehicle to tow an already purchased Gun (that cannot be made dm), he might still be able to buy such a vehicle for it. If that Gun is part of a U.S. or British/Commonwealth force, or is a German AT Gun, or is for a North Africa scenario, or the player has made the 10% expenditure for a motorized unit (1.4), then he may purchase for that Gun an unarmed and unarmored motorized vehicle having the *highest* T# that still allows it to tow that Gun; however if none of these conditions apply, then he may buy only Horse-Drawn Transport for that Gun.



1.45 MOTORCYCLES & BICYCLES: No Availability DR is made for motorcycles/bicycles; they are purchased by direct point expenditure. The BPV of a Cycle is 8, 4, and 2 for a squad, HS, and SMC size counter respectively. The respective BPV for a Sidecar is 10, 5, and 3; that for a bicycle is 4, 2, and 1.

1.46 OBSERVATION POST (OP) TANKS: Several nationalities equipped their armored divisions with tanks specially adapted to house

© 2000 Multi-Man Publishing, LLC

H DYO PURCHASE ROSTER

SCENARIO DATE: NATIONALITY: SAN:

1.2 INFANTRY

ELR (1.28):_____PF range:_____

TYPE	A/B/C/M #	MPV† ea	MPV	ID	R/S/2*
Elite: # × 4 ÷ 3 = (Equiv #; FRD)					
		x	=		
		x	=		
		x	=		
		x	=		
		x	=		
		x	=		
subtotal:Equiv # ( )					
LINE: # = (Equiv #)					
		x	=		
		x	=		
		x	=		
		x	=		
		x	=		
		x	=		
subtotal: Equiv # ( )					
CONSCRIPT: # × 2 ÷ 3 = (Equiv #; FRD)					
		x	=		
		x	=		
		x	=		
		x	=		
		x	=		
		x	=		
subtotal: Equiv # ( )					
TOTAL: 1st Pur: Equiv # ( )					

† MPV = BPV (increased by special capabilities, if any) + PF or PFk range (if any).
* = Assault Engineer (BPV × 2); B = Bonus; C = Commando (BPV × 1.5);
M = MOL; R = Reinforcement ; S = Sapper (BPV × 1.5); 2 = 2nd Purchase

1.8 LEADERS

LG:____

(using squads' Equiv #)

TYPE	#	(FINN)
10-3		
10-2		(10-1)
10-0[c]		
9-2		(10-0)
9-1		(9-1)
9-0[c]		
8-1		(9-0)
8-0		(8-0)
7-0		
6+1		

[c] = Commissar

POINTS AVAILABLE

INITIAL: _____
1st INF:— _____
subtotal:
SAN:— _____
subtotal:
ORDN:— _____
subtotal:
VEH:— _____
subtotal:
OBA:— _____
subtotal:
FORT:— _____
subtotal:
2nd INF:— _____
FINAL

PURCHASE SEQUENCE

Start → 1.2 1st Inf. → 1.29 SAN > 2 → 1.3 Ordn. → 1.4 Veh. → 1.5 OBA → 1.6 Fort. → 1.7 2nd Inf. → 1.8 Ldrs/ SW → END

1.3 ORDNANCE

RF:____

TYPE	BPV ea	#	BPV
		x	=
		x	=
		x	=
		x	=
		x	=
		x	=
TOTAL:			

1.6 FORTIFICATIONS

TYPE	BPV ea	#	BPV
		x	=
		x	=
		x	=
		x	=
		x	=
		x	=
TOTAL:			

1.4 VEHICLES

RF:_____

NAME	BPV ea	Opt BPV	For	#	BPV	Arm. Ldr	ID
		+	=	x	=		
		+	=	x	=		
		+	=	x	=		
		+	=	x	=		
		+	=	x	=		
		+	=	x	=		
		+	=	x	=		
		+	=	x	=		
		+	=	x	=		
		+	=	x	=		
		+	=	x	=		
		+	=	x	=		

Motorized Unit 10% (FRU): + _____
TOTAL:

1.5 OFFBOARD ARTILLERY

BTRY	SIZE	R/P*:ID	P/S†	BPV
A				
B				
C				
D				

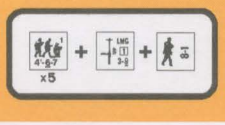
Pre Reg: +_____
* R = radio; P = phone Bombardment: +_____
† P = Plentiful; S = Scarce TOTAL:

1.83 SUPPORT WEAPONS

(using squads' Equiv # *[EXC: Radio/Phone]*)

TYPE	#	TYPE	#
LMG		PSK/BAZ/PIAT	
MMG		DC	
HMG/.50 cal	/	FT	
ATR		Radio/Phone	/
LT MTR		(other)	

© 2000 Multi-Man Publishing, LLC
MMP, LLC grants permission to photocopy this sheet for personal use.



the artillery observers of those divisions. OP tanks were designed to be as inconspicuous as possible, so no separate counters for them have been provided. Instead, a normal tank counter (often with different armament) is used, with its true function noted on the Roster by writing "OP" in the "Arm. Ldr." column of its entry line. An OP tank is available only if the player has made the 10% expenditure for a motorized unit (1.4), *and* has purchased OBA of the correct type (for that tank; see 1.462-.465). If the player decides to use an available OP tank he must adjust the point total of his "Vehicles" section by adding in the BPV of that tank and must alter his "Points Available" subtotal accordingly.

1.461 USAGE: Each OP tank carries an OBA Observer who uses that tank's radio as if it were a radio SW counter, although it cannot be removed from the OP tank. The inherent Observer can leave the tank however; when he does so he takes counter form as an x-0 leader, with x equalling the ›Morale Level of that nationality's inherent AFV crews (D5.1). If the Observer leaves his OP tank for any reason, that tank cannot be used for Observation purposes until that same Observer re-enters it. Whenever an OP tank is CE it is the Observer who is Vulnerable (assuming he is in the tank); if the Observer is stunned while CE, he does not subsequently add the Stun +1 as a drm to his OBA Accuracy/Error dr—but if he leaves the OP tank he is treated as a wounded leader (including reduced morale). All other rules dealing with OBA/Observers remain in effect unchanged unless specified otherwise by the type of OP tank being used. An OP tank is not Recalled if its weapons become disabled (D3.7), but it is Recalled immediately if its Observer cannot theoretically call in any further Fire Missions for the remainder of the scenario (e.g., radio disabled, Battery Access permanently lost, etc.). An OP tank never has any optional armament. Purchasing an OP tank cancels the normal receipt of a SW radio or field phone for that OBA battery (1.51).

1.462 GERMAN: The Germans used two main types of OP tanks. They impose no penalty for Observing while BU, and retain all normal characteristics and capabilities except as specified otherwise below.

- *PzKpfw III OP:* Use a PzKpfw IIIJ or IIIL counter. Its MA (and sole weapon) is a 2 FP BMG (with a l ROF) that *can* fire while the tank is HD. The Gun Type is NT. The PzKpfw III OP can Observe only for a German "100+" OBA battery. It is available 6/43-45, with a BPV of 36 (IIIJ) or 37 (IIIL).
- *PzKpfw IV OP:* Use a PzKpfw IVJ counter. It can Observe only for a German "l50+" OBA battery (not rocket OBA). It is available 9/44-45, with a BPV of 88.

1.463 SHERMAN (U.S.) OP: Use an M4 or M4Al counter. A +l drm is added to the OBA Accuracy of a battery whose Observer is BU in this OP tank, and it can only Observe for a U.S. "100+" or "150+" OBA battery. It is available 44-45, with a BPV of 74 (M4) or 75 (M4Al).

1.464 SHERMAN (U.K.) OP: Use a British Sherman I or Sherman III counter. Its MA is its printed CMG FP, with a T Gun Type and a l ROF (it has no 75 Gun); it retains its BMG and also has a 4 FP AAMG. A +1 drm is added to the OBA Accuracy dr of a battery whose Observer is BU in this OP tank. This OP tank also carries an extra radio that can take counter form (i.e., can be used) only if its inherent Observer leaves the tank with it; moreover, only that Observer can use that extra radio. This OP tank can be designated as using an inherent field phone, provided its inherent Observer is using it and the tank does not leave its setup hex (if it does leave that hex, the field phone becomes disabled but the tank's own radio, or its SW radio counter, may *then* regain contact with the battery). This OP tank can be used only with a British/Commonwealth "80+" (or larger) OBA battery, and is available 44-45 with a BPV of 42 (Sherman I) or 43 (Sherman III).

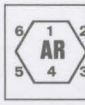
1.4641 CROMWELL OP: The Cromwell OP is treated exactly like a Sherman (U.K.) OP except that a Cromwell IV counter is used. It has a BPV of 43, and was used by the British 7th Armored Division in NW Europe.

1.465 RAM OP: The Ram was the Canadian-built equivalent to the Sherman, and was used as an OP tank by Canadian armored divisions and the British Guards Armored Division in NW Europe. Use a British Sherman II counter. Its MA is its printed BMG FP (with a l ROF), and it also has (as its only other weapon) a 2 FP AAMG. It is NT and has sM9 instead of an sD#. A +1 drm is added to the OBA Accuracy dr of a battery whose Observer is BU in this OP tank *if* that Observer's LOS lies outside the tank's VCA. The Ram OP is available 44-45, with a BPV of 37.

1.47 BOATS: Boats are purchased during the "Vehicles" segment of the DYO Purchase Sequence and are recorded in the "Vehicles" section of the Purchase Roster. DYO BPV are, Large Raft: 5; Assault Boat 3 (if motorized: 4); Small Raft with three-boat depiction: 3 (two-boat depiction: 2, one-boat depiction: 1).

1.48 GLIDERS: German, U.S., and British glider BPV are 3, 4, and 6 respectively. Such purchases are made during the "Vehicles" segment of the DYO Purchase Sequence, and are recorded in the "Vehicles" section of the Purchase Roster. A U.S. player may also purchase British gliders, and a British player may likewise purchase U.S. gliders, but the player should keep a side record of which gliders are not of his OB's nationality. German gliders are available beginning 5/40, U.S. and British gliders beginning 7/43.

1.49 AMMO VEHICLES: The DYO cost of an Ammo Vehicle is double that vehicle's normal BPV.



1.5 OBA: Each player's OBA is determined by making one or more DR on his side's OBA Availability Chart. The number of DRs allowed on this chart (i.e., the number of batteries potentially available to his side) is based on his initial point allotment; each 600 points (or fraction thereof) entitles the player to one OBA DR (e.g., ≤ 600 allows one DR; 601-1200 allows two DR, etc.). The battery made available by that DR must be either purchased (and thus recorded) or declined before any further purchase or allowed OBA DR may be made. The DYO cost of an OBA battery is increased by 50% if it is to have Creeping Barrage capability (or by 100% if it is also to be convertible; E12.771); indicate this capability on the Roster by recording "CB" or "CBc" in the "P/S" column of the "OBA" section. The DYO cost for the Creeping Barrage's Pre-Registered hex (E12.71) is still assessed (1.53). For NOBA, see G14.69 and G14.74. See G18.82 for Chinese OBA.

1.51 Each OBA DR is cross-indexed with the DYO scenario's year to find the block containing the OBA battery's IFT size, type, and BPV. An "M" after the size indicates medium mortar OBA (C1.22); likewise, an "R" indicates rocket OBA (C1.9). One radio (which the buyer can freely exchange for a field phone) is included with the purchase of each OBA battery *[EXC: if an OP tank is used with that battery; 1.461]*. If not enough points remain to purchase a battery indicated by an OBA Availability DR, that battery cannot be purchased; see 1.13. Players are advised to initially set aside enough points to pay for whatever OBA may become available; to aid in this, the bottom line of each OBA Availability Chart lists the maximum BPV cost that can be encountered per year.

1.52 PLENTIFUL/SCARCE AMMO: OBA can be purchased with Plentiful or Scarce Ammunition (C1.211) by first respectively adding or subtracting 20% (FRU) to or from the listed BPV of that battery.

1.53 Other OBA point costs are:

- Pre-Registered Fire (C1.73): 20 per hex;
- Bombardment (C1.8): 150 per board. Only one Bombardment may be designated per "board".
- Air Support (1.531).

EX: Assume that out of the German player's initial 1000 points he has 220 remaining. His 1000 points entitle him to two OBA DR, the first of which is a 10. This in 1944 indicates normal 70+mm OBA with a BPV of 63. This puts him in a slight dilemma because if his next DR is a 6 he will not have enough points to buy the 150+mm OBA offered by this DR. Nevertheless he opts to buy the 70+mm OBA and records it as Battery A on his Roster. He also chooses Radio A to use with Battery A, and indicates this by recording "R:A" in the "R/P:ID" column for A. His second DR is a 2, which indicates 80+mm mortar OBA (BPV 92). The player also buys this but with plentiful ammo, thus raising its BPV to 111 (92 [BPV] + 19 [92 × .2 (FRU) = 19] = 111). This purchase is recorded as Battery B, and field phone B is chosen to be used with it. This is recorded in the B line of the OBA section by writing "80+M" in the "Size" column, "P:B" in the "R/P:ID" column, "P" in the "P/S" column, and "111" in the "BPV" column. The total BPV of OBA purchased is 174 which is recorded in this section and subtracted in the "Points Available" section to show that 46 points remain available for Fortification or further Infantry purchases.

© 2000 Multi-Man Publishing, LLC

GERMAN OBA AVAILABILITY CHART						
YEAR		39-40	41	42	43	44-45
DR: BPV:	2	80+M 92*	80+M 92*	120+ 126	200+R 95	80+M 92*
	3	80+M 92*	80+M 92*	80+M 92*	120+ 126	80+M 92*
	4	150+ 158	150+ 158	150+ 158	150+ †158	200+R †95*
	5	150+ 158	150+ 158	150+ 158	150+ †158	120+ 126
	6	100+ 106*	100+ 106*	100+ 106*	100+ †106*	150+ †158
	7	80+M 92*	80+M 92*	80+M 92*	80+M 92*	100+ †106*
	8	80+M 92*	80+M 92*	80+M 92*	80+M 92*	80+M 92*
	9	100+ 106*	100+ 106*	100+ 106*	100+ †106*	150+R 79
	10	70+ 63	70+ 63	70+ 63	150+R 79	70+ 63
	11	70+ 63	70+ 63	150+R 79	70+ 63	80+M 92*
	12	70+ 63	150+R 79	70+ 63	70+ 63	70+ 63
MAX. BPV:		158	158	158	158	158

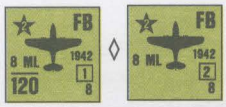
M: Battalion mortar OBA (C1.22).
R: Rocket OBA (C1.9).
*: Can fire IR (E1.93).
† : OP tank possibly available (1.46).
All Modules have Smoke capability (WP only by SSR) unless SSR denies it.

FINNISH OBA AVAILABILITY CHART				
YEAR		39	40-41	42-44
DR: BPV:	2	150+ 105	150+ 105	150+ 105
	3	150+ 105	150+ 105	150+ 105
	4	100+ 70	120+ 84	120+ 84
	5	80+M 62*	100+ 70	100+ 70
	6	80+M 62*	80+M 62*	80+M 62*
	7	80+M 62*	80+M 62*	80+M 62*
	8	80+M 62*	80+M 62*	70+ 42
	9	70+ 42	70+ 42	70+ 42
	10	70+ 42	70+ 42	80+M 62*
	11	70+ 42	70+ 42	120+ 84
	12	70+ 42	150+ 105	150+ 105
MAX. BPV:		105	105	105

M: Battalion mortar OBA (C1.22).
*: Can fire IR (see E1.93).
All Modules have Smoke capability (WP only by SSR) unless SSR denies it.

RUSSIAN OBA AVAILABILITY CHART						
YEAR		39-40	41	42	43	44-45
DR: BPV:	2	120+ 59	100+ 49	150+ 82	100+ 65	150+ 105
	3	100+ 49	150+ 74	80+M 48*	150+ 98	150+ 105
	4	150+ 74	70+ 29	200+R 74	200+R 88	200+R 95
	5	70+ 29	70+ 29	80+M 48*	80+M 57*	80+M 62*
	6	120+ 59	120+ 59	120+ 66	120+ 78	120+ 84
	7	80+M 43*	80+M 43*	80+M 48*	80+M 57*	80+M 62*
	8	80+M 43*	80+M 43*	70+ 33	70+ 39	70+ 42
	9	80+M 43*	80+M 43*	120+R 49	120+R 59	120+R 63
	10	70+ 29	80+R 29	80+R 33	80+R 39	80+R 42
	11	70+ 29	120+R 44	70+ 33	80+M 57*	80+M 62*
	12	100+ 49	70+ 29	100+ 55	70+ 39	70+ 42
MAX. BPV:		74	74	82	98	105

M: Battalion mortar OBA (C1.22).
R: Rocket OBA (C1.9).
*: Can fire IR (see E1.93).
All Modules have Smoke capability (WP only by SSR) unless SSR denies it.



1.531 AIR SUPPORT: Air Support can be purchased once per scenario, after determining scenario Weather Conditions, for 100 points in 1939-41, 125 points in 1942-43, or 150 points in 1944-45 *[EXC: Seaborne Assaults; G14.262]*. Air Support is purchased during the "OBA" segment of the DYO Purchase Sequence, and is recorded in the "OBA" section of the Purchase Roster. However, before a player can purchase Air Support he must make an Air Support Availability DR on the table below. If the Availability DR is ≤ that nation's Air Support Number for that year, he may purchase Air Support for that scenario.

AIR SUPPORT AVAILABILITY TABLE

	1937	1938	1939-40	1941	1942	1943	1944	1945
German†	—	—	7^5	6^{*5}	5^{*4}	4^{*3}	3^{*3}	2^{*3}
Russian	—	—	4^3	3^3	4^3	5^4	6^5	7^5
U.S	—	—	—	2^1	4^2	5^3	6^4	7^5
British@	—	—	4^1	4^1	5^2	5^3	6^4	7^5
Italian††	—	—	4^1	4^2	4^2	3^2	—	—
Japanese	—	—	5^4	5^4	5^4	4^4	3^3	2^3
France**	—	—	4^1	4	4	—	—	—
G.M.D.^	5^2	4^2	3^1	2^1	3^1	3^1	4^2	5^3

The exponent is the dr the aircraft player must roll ≤ in order to have bombs on his aircraft (see E7.21).
† If the German player in a pre-1944 scenario rolls < the exponent, he receives one or more Stuka Dive Bombers; if he rolls equal to the exponent he receives one or more Fighter-Bombers (E7.21). Axis Minor Air Support Availability Number is always two less than German.††
* Air Support Availability Number vs Russians is one higher.
@ Includes all Commonwealth, Free French, and forces of other conquered countries fighting with British backing.
** Includes France through June, 1940, other Allied Minor countries, and Vichy France.
†† An Italian or Axis Minor bomb availability dr of 1 in a 1942-43 scenario results in receiving Stuka aircraft—not Fighter-Bombers.
^ G.M.D. may only purchase Observation Planes (1.532) for OBA of ≥ 100mm and only for scenarios set in 1944-45, otherwise they use Air Support normally *[EXC: Napalm G18.831]*. The Red Chinese may not purchase Air Support.

© 2000 Multi-Man Publishing, LLC



1.532 OBSERVATION PLANE: The DYO cost of an Observation Plane is 25 points, which is recorded in the "OBA" section of the DYO purchase Roster. An Observation Plane is available only during 43-45 to the U.S., German, or British/Commonwealth player and to the G.M.D. player only in 44-45—and only by SSR, or by completing the following steps in order: 1) purchasing a 100+mm (or 80+mm if British/Commonwealth) non-rocket OBA battery as per 1.5; 2) making a separate successful Air Support Availability DR (1.531) for the Observation Plane itself; and 3) paying 25 points for the Observation Plane.

1.6 FORTIFICATIONS: Fortifications are purchased by paying their BPV cost as provided on the list below and recording such on the Roster.

FORTIFICATION BPV:

TYPE:	BPV:
Foxhole	3/2/1[1]
Trench	7 (21 if an AT Trench)
Minefield	1 per IFT factor[2]
A-T Mine	3 per factor[3]
Roadblock	12[4]
Wire	5
Pillbox	(a+b+c) × 3[5]
Fortified Building or Tunnel	25[6]
HIP	4/3/2[7]
"?"	2
Booby Traps	10/20/30[8]
Sangar	1/2[9]
Trip Flares	1
Panji	2[10] per hexside
Caves	20/10[11]
Tetrahedron	3[12]
UDT	3[13]
Recon	10[14]
Ammo Dump	25[15]

[1]: For 3 squad, 2 squad. and 1 squad capacity respectively

[2]: For DYO purposes, the maximum allowed per board in whole hexes is 120 factors. For Known minefields, see B28.45-.46; for Dummy minefields, see B28.47.

[3]: Includes Daisy Chain.

[4]: For DYO purposes, the maximum allowed per board in whole hexes is three.

[5]: Add the Capacity, CA DRM, and NCA DRM and multiply the sum by three.

[6]: Per building Location.

[7]: Per squad, HS, and SMC respectively. For DYO purposes, no more than 10% (FRU) of a side's Infantry squads (plus all SW/leaders stacked with them) may set up using HIP in a daytime scenario. See A12.34 for Gun HIP.

[8]: Level C/Level B/Level A (B28.9) respectively.

[9]: Only allowed per hex (F8.2).

[10]: The BPV of each Panji counter equals two points per Covered hexside on that counter.

[11]: Only the Japanese side may purchase caves. Each Cave counter has a BPV of 20 prior to 1944, and of 10 in 1944-45.

[12]: The BPV of other Beach Obstacles remains unchanged (hence a Tetrahedron-and-Wire counter's BPV is "8").

[13]: The U.S. (only) player may purchase as many UDT dr as he wishes *[EXC: purchase is NA both prior to 1944 and vs other than Japanese; G14.561]*. UDT Expenditures are recorded as Fortifications on the DYO Purchase Roster. Note that in DYO scenarios the terrain of Beach Obstacle hexes may change from OCEAN to Beach or vice-versa (due to the amphibious player's declaration of the tide as High or Low; G13.97); see G14.56.

[14]: See E1.23.

[15]: See E10.6.



1.7 SECOND INFANTRY PURCHASE: A player makes a second Infantry Purchase if he still has points available after making all his other desired purchases, and makes it in the same manner as his first Infantry Purchase (1.2-.27). However, MMC purchased at this time are specially designated on the Roster by writing a "2" in the "A/B" column of its entry line. In addition, if the total MPV spent in the Second Infantry Purchase is ≥ the total MPV spent in the First Infantry Purchase, at least half of the squads received in the Second Purchase must enter as reinforcements (the owning player chooses which of these squads are to be the reinforcements; see 1.84 for their leader/SW allotment). Such reinforcements can enter the game only along a friendly board edge, and only if their owner (at the start of his own RPh) first makes a DR ≤ the current Game Turn number. One reinforcement DR is made per friendly RPh until the reinforcements are eligible to enter. A reinforcement is indicated on the Roster by writing an "R" in the "A/B" column of its entry line. In a DYO scenario the owning player may always designate purchased/allotted pieces as reinforcements if he so desires.

EX: Assume that the German player bought no Fortifications and thus still has 46 points to use for his Second Infantry Purchase. He decides to buy three more 4-6-8 for 45 points ({13 [BPV] + 2 [PF]} × 3 [#] = 45). He records this purchase on a blank line of the "Elite" Infantry subsection, putting a "2" (for Second Purchase) in that line's "A/B" column. His last point goes unused since he cannot purchase any Infantry with it. Had he planned his Second Purchase back when he could buy Fortifications, this single point could have bought him a one squad foxhole—but it is now too late to do so.

EX: A Russian player spends 70 points for ten 4-4-7 in his First Infantry Purchase. In his Second Purchase he spends 84 points for seven 6-2-8. At least four of these 6-2-8 must enter as reinforcements.

1.71 BONUS INFANTRY: After both players have completed (or declined to make) their Second Infantry Purchases, each announces the ELR that applies to the greatest number of his squads (based on their actual, not equivalent, #; see 1.72 if no one ELR predominates). The player with the lower announced ELR then receives a number of free squads as per the Bonus Infantry Chart. The player with the lower ELR simply cross-indexes his *total* scenario Infantry MPV expenditure with the difference in the announced ELR to find the bonus #, which equals the number of *free* squads received; see 1.73 for their type. If both players announce the same ELR, or if one (or both) player(s) spent no points for Infantry, then no bonus units can be received.

BONUS INFANTRY CHART

TOTAL INFANTRY MPV	0	1-50	51-100	101-150	151-200	201-250	251-300	301-350	351-400	401-450	451-500
ELR DIFFERENCE											
1	0	1/2	1	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5
2	0	1	2	3	4	5	6	7	8	9	10
3	0	1 1/2	3	4 1/2	6	7 1/2	9	10 1/2	12	13 1/2	15
4	0	2	4	6	8	10	12	14	16	18	20

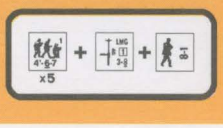
If the total Infantry MPV exceeds 500, follow the patterns indicated by the bonus #s to calculate the correct bonus #.

1.72 If no single ELR applies to the greatest number of the player's squads, then at least two different ELR apply to equal numbers of squads—in which case the highest ELR applicable among these equal-number groups is the one announced. See 1.27 for special Partisan announced ELR.

1.73 BONUS TYPE: Bonus MMC cost no points, and are chosen by the owning player—but from only those squad types whose BPV is ≤ that of the most numerous (using its total actual, not equivalent, #—and regardless of any special capabilities that some/all squads of that type possess) squad type (or types, if 1.72 applies) in his OB. If no such MMC remain available, the player may pick from the type having the next higher BPV than his most numerous type(s), but the bonus # is first *halved* (retain any fraction). If none of these remain available, the *next* higher BPV type is used (but with no further halving), etc. Any fraction in the bonus # allows the player to choose a HS, in the same manner as choosing a bonus squad. Bonus MMC can be given only those special capabilities (1.22-.25) that *all* other MMC in that player's OB already possess.

EX: The German player's entire Infantry OB has an ELR of 3 for his September '44 scenario, and the Russian's ELR will be 4. When these ELR are announced the German player will be eligible for bonus Infantry. He has spent a total of 494

© 2000 Multi-Man Publishing, LLC



(449 + 45) points for Infantry, and the ELR difference is l; therefore he is entitled to five bonus squads. His most numerous squad type is 4-6-7 (of which he has twelve) so he picks five more 4-6-7 as his ELR bonus, recording separately in the "Line" subsection, with a dash in the "MPV ea" and "MPV" columns and a "B" (for bonus) in the "A/B" column.

Instead of the five 4-6-7 he could have picked any combination (up to five) of 4-6-7/4-4-7/4-3-6. If no 4-6-7 remained available he could have picked only 4-4-7/4-3-6; if these too were not available he could have picked 4-6-8/5-4-8, but only to a total of two squads and a HS (5 [bonus #] ÷ 2 [higher BPV] = 2.5].

1.74 EQUIVALENCY: After the allotted bonus Infantry have been recorded on the Roster, the Equivalency of all Infantry squads must be calculated. The number of Equivalent squads determines the allotment of SW/leaders (1.8-.84). To find the Equivalent number, first sum the "#" column in each of the three subsections (be sure that the entries for crews/HS are *not* added in, as they have no Equivalency; 1.212), then modify each of the resulting subtotals as applicable below:

- Elite: every three elite squads count as four. The "#" column subtotal × 4 ÷ 3 = the Equivalent # (FRD).
- Conscript: every three conscript squads count as two. The "#" column subtotal × 2 ÷ 3 = the Equivalent # (FRU).
- Line, green, and all other squads that are neither elite nor conscript have an Equivalent # equal to their "#" column subtotal (i.e., equal to their actual number).

Record each result in the "Equiv #" parentheses in its appropriate subsection, and then add these "Equiv #" subtotals together and record this new sum in the parentheses in the "TOTALS" line. This number is the Equivalent number of squads in the player's OB.

EX: The German player's "#" column subtotals are as follows: "13" elite, "17" line, and "10" conscript. Their respective Equivalencies are "17" (13 × 4 ÷ 3 = 17.33; FRD = 17) "17", and "7" (10 × 2 ÷ 3 = 6.67; FRU = 7). Adding these together yields a total German OB squad Equivalency of "41".

1.8 LEADERS:[4] Leaders have no point value and therefore cannot be purchased. The number of leaders available to the player at the start of each scenario is equal to the total number of friendly Equivalent (1.74) squads in that scenario divided by the Leadership Generation (LG) factor listed for that nationality on the A25 National Capabilities Chart. Any fractional surplus is used to add one additional leader of the 7-0 type (8-0 for Finns). See A25.22 for allotment of Commissars (which in DYO are allotted *after* any Leader Exchange DR; 1.82).

1.81 QUALITY: Leadership quality is mildly a measure of the number of leaders a player can use for the size, quality, and nationality of his OB. Players must use 8-0 leaders as the basis for their leader OB and must use more 8-0 leaders *[EXC: 9-0 leaders for Japanese]* than 8-1 leaders, more 8-1 leaders than 9-1 leaders, more 9-1 leaders than 9-2 leaders, etc. After making this allotment, each player can trade one 8-0 leader for the next highest leader not currently in his selected OB unless he already has the best possible leader. *[EXC: a 10-3 leader can be allotted only via a Leader Exchange DR (1.82). A 7-0 can be substituted for any 10-3 that Leader Generation procedures would have allowed.]*

EX: The German player's LG factor is 4. Dividing 4 into his total squad Equivalency of 41 yields 10.25; therefore he will have ten leaders plus a 7-0. Since the number of each type of leader must decrease as the quality of type increases, he will have four 8-0, three 8-1, two 9-1, and one 9-2. He now removes one 8-0 from his OB and replaces it with the next-better leader not yet in his OB, which in this case is a 10-2. This results in a Final leader OB of one 7-0, three 8-0, three 8-1, two 9-1, one 9-2, and one 10-2.

1.82 LEADER EXCHANGE DR: After the player's leaders have been allotted, he may make one DR in an attempt to upgrade the quality of his best leader (only *one* DR regardless of how many leaders of that best quality his OB contains). If the Leader Exchange DR results in a better leader than his current best, that leader is exchanged for the one indicated by the DR. However, if the Leader Exchange DR is a 12, an 8-0 (or any other leader of his choice, if no 8-0 is present) in his OB must be exchanged for a 6+1 *[EXC: a 12 DR equals "no effect" for a Finnish OB].*

EX: Since the German player's best leader is a 10-2, only a Leader Exchange DR of 2 will result in a better leader replacing it (in this case a 10-3). Any other DR will have no effect, unless he rolls a 12 in which case he will lose an 8-0 and gain a 6+1.

LEADER EXCHANGE TABLE

DR	2	3	4	5	6	7	8	9	10	11	12
New Leader	10-3	10-2	9-2	9-1	8-1	8-1	8-0	8-0	—	—	6+1*
Finnish	10-1	10-0	9-1	9-0	8-0	8-0	—	—	—	—	—
Japanese	10-2	10-2	10-1	10-1	10-0	9-1	9-1	9-1	9-0	—	8+1**

* Replaces 8-0 (or any other leader, if no 8-0 present).

** Replaces 9-0 (or any other leader, if no 9-0 present).



1.83 SW: SW are allotted to a side in ratios dependent on the SW type, the Equivalent (1.74) number of squads received, and the DYO scenario's year. The SW Allotment Chart is used for this purpose. The number found by cross indexing the proper year with the SW desired is the number of squads required in order to receive one SW of this type. The number of squads used for this is the total Equivalent (i.e., parenthesized) number as given on the Roster.

GERMAN-FINNISH SW ALLOTMENT CHART[1]

	LMG	MMG	HMG	ATR	LT. MTR	PSK	FT[2]	DC[2]
39-42	6	10	15	6/6	6	—	2	1
43	5	9	13	6/6	9	12[5]	2	1
44-45	4	6	10	-/6	12	6	2	1
# In Game	*12*	*6*	*6*	*3/2*[4]	*5*	*10*	*5*	*6*

RUSSIAN SW ALLOTMENT CHART[1,3]

	LMG	MMG	HMG	.50cal	ATR	LT. MTR	FT[2]	DC[2]
thru 40	8	14	18	23	—	6	4	3
41	9	15	22	25	13	9	3	2
42[3]	10	18	24	26	10	12	3	2
43	8	13	19	24	8	7	3	2
44	7	10	15	22	6	8	2	1
45	6	9	14	20	7	11	2	1
# In Game	*11*	*6*	*4*	*2*	*5*	*5*	*4*	*6*

[1]: SW allotted according to Equivalent number of squads listed on Roster.

[2]: Allotted according to number of Equivalent Assault Engineers; see 1.22.

[3]: Partisans use the 1942 line, regardless of scenario date.

[4]: Finnish ATR.

[5]: Not available until Sept. 1943.

EX: The German player's 41 Equivalent squads in his September '44 entitle him to ten LMG, six MMG, four HMG, three light mortars, and six PSK. His four Equivalent Assault Engineers also entitle him to two FT and four DC.

1.84 REINFORCEMENT LEADERS/SW: When reinforcements are required as per 1.7, they must sometimes be accompanied by leaders/SW. These leaders/SW must already be part of the player's OB, and are reallotted to his reinforcements. Divide the nationality's LG factor into the reinforcements' Equivalent #; the result (FRD) is the number of leaders (whose type is of the owner's choice) that must become reinforcements. SW are re-allotted by applying the reinforcements' Equivalent # to the pertinent line of their SW Allotment Chart to find how many and which SW from their OB must become reinforcements. Use brackets to indicate on the Roster which leaders/SW are reinforcements. Reinforcements may also be designated voluntarily (1.7).

EX: Assume that the German player must bring on five 4-6-7 as reinforcements in his September '44 scenario. These squads must be accompanied by one OB leader (5 / 4 = 1.25 FRD = 1) of the owner's choice, and by one LMG. Since altogether there are ten LMG in his OB, they would be recorded on the Roster thusly: "9 + [1]". If there were only three 4-6-7 reinforcements they would require neither a leader (3 / 4 = .75; FRD = 0) nor any SW. If the five reinforcement squads were 4-6-8 they would have an Equivalency of six, and so would have to be given from the OB a LMG, a MMG, and a PSK; they would still require just one reinforcement leader, however.

© 2000 Multi-Man Publishing, LLC



CHAPTER H FOOTNOTES

1. *1.1 UNIT PURCHASES:* Players can create more "Fog of War" by keeping their purchases secret. This allows for more uncertainty in knowing exactly what the opponent possesses and preserves the surprise element made possible by the purchase of fortified buildings, tunnels, HIP, etc. On the negative side, it can be infuriating to play an entire scenario before finding out that one's opponent made a mathematical error and was playing with 20% more forces than they were allowed! The choice is best made within one's own circle of friends.

2. *1.13 MECHANICS:* While the spirit and letter of this rule can be technically evaded by calculating all purchases on scrap paper before recording them on the Roster, it is hoped that not doing so will become part of the "honor system." This not only speeds up preparation for play (by eliminating unit wheeling and dealing to use those last remaining points) but will also put the players more closely in the position of the field commander who never experienced the freedoms of choice in equipment/unit availability that the DYO player has.

3. *1.28 ELR:* The ELR suggestions are merely that; they are not hard and fast rules but general guidelines for those who do not wish to research their own scenarios. Much ado may be made of the lowering of ELR for U.S. units in early '44, and for British units in '45. The rationale for the general lowering of U.S. ELR is the great influx of new, untried units prior to the Normandy landings. By late '44 the American Army was suffering from a shortage of infantrymen and replacements were being fed into the line straight from basic training. One could well make a case on these grounds for continuing the lower ELR through the duration. Likewise the British had long since reached the limits of their manpower resources and the pluck of the professional British soldier with the end now in sight was tainted with a widespread desire not to be the last casualty in the war. Nevertheless, keep in mind that these are gross simplifications and hardly a substitute for research into the actual performance of the units being represented in any given action.

4. *1.8 LEADERS:* The establishment of a set formula for the number and quality of leaders allowed in a DYO scenario has an admittedly vast potential for abuse, in that it will be adhered to by many as a hard and fast rule which robs the scenario creator of originality in depicting unusual circumstances and performances by tinkering with his conception of the leadership influence on that event. Nonetheless, as a general guideline for those seeking such in DYO scenarios it can be a useful tool. Unless a scenario designer has a strong research rationale to vary from the formula he would do well to adhere to it for the relative availability and quality of leadership is one of the strongest nationality traits observed in the *ASL* game system.

GERMAN VEHICLE NOTES

On September 1 1939, Germany possessed some 4,564 AFV, of which only 583 were armed with a 37 or 75mm gun; the vast majority of German AFVs of this period had only MG or 20mm armament. During the invasion of France the German Army fielded about 2,800 AFV against approximately 4,000 French and British; in the invasion of the Soviet Union some 3,350 Panzers were initially committed. These figures show just how effective the new Blitzkrieg tactics really were. Of course, the Blitzkrieg itself was successful due to the Germans' radical theories on, and greater experience with, combined arms warfare. Panzer divisions—the crucial element in Blitzkrieg—were entirely self-sufficient formations, an arrangement that provided greater flexibility and, in concert with sound training and bold aggressive leadership, led to successes out of all proportion to their numbers.

Individually, German AFV were generally characterized by their engineering sophistication—sometimes to the point of needless complexity. This sophistication together with insufficient standardization (which led to problems in mass production) made them time-consuming and expensive to build relative to the Allies' AFV. When they worked they performed extremely well but when broken-down were often difficult to repair. Moreover, the persistent shortage of AFV after the first few years necessitated their almost constant use, thus exacerbating wear and tear and increasing the likelihood of breakdowns. Still another problem was the proliferation of different AFV types—especially tank destroyers. To illustrate, there were no fewer than seventeen different types of tank destroyers having production figures of at least sixty vehicles and used in combat. Such variety must have been a nightmare to the supply and repair echelons.

For the first three years of what Hitler had envisioned as a short war, AFV production was kept at a relatively low level. By late 1942 however, it was seen that this policy was leading to disaster and so production was greatly increased, resulting in some 20,500 AFV being built in 1943 (3.5 times the number built in 1941). Of this figure though, more than one-third were simply armored halftracks. After being caught with inferior tanks in Russia, by 1943 the Germans had regained the initiative in new tank design but could never gain quantitative parity with the Allies. Germany's total World War 2 AFV production was approximately 80,000 vehicles (including the many command, observation, recovery, etc., versions), but of these only about 22,800 were the Panzer III-VI models. In contrast, the U.S. produced almost 50,000 of the Sherman alone. In the end, Germany's panzer divisions were swamped by a vast flood of Allied AFVs; no degree of tactical superiority could overcome such disparity in numbers.

Any counter errata mentioned in the German/Russian Vehicle and Ordnance Notes applies only to the 1st edition counters of BEYOND VALOR/RED BARRICADES.



1. PzKpfw IB: This was the first German tank to be mass produced. Intended only as a training vehicle, it was nonetheless used in combat as early as 1936 in the Spanish Civil War. By June 1941 however, only 74 were still in use. About 1,500 Ausf (Ausfuehrung = Model) A and B were built. Five PzKpfw I made up a platoon.

†1941 RF is 1.4.

†Make two To Kill DR on the MG column when using the AP To Kill Table; only one DR (firer's choice) is used.

See also German Vehicle Note N

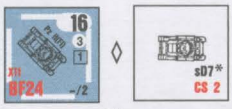


2. PzKpfw IIA: This was an interim design ordered due to the delays in production of the PzKpfw III and IV. Nonetheless, it was used as a main battle tank in Poland, where 90% of the German tanks used were PzKpfw I and II. The Ausf A is representative of the various early types, of which some 1,200 were built. Five PzKpfw II comprised a full-strength platoon.



3. PzKpfw IIF: 524 were built. The Date in the Armor Listing also includes earlier versions which were uparmored after the Polish campaign and are equivalent to the Ausf F in game terms. Because of its relatively weak armament, from 1940 the PzKpfw II was used primarily for reconnaissance, with one platoon officially allotted for this purpose to each Pz. company (deleted in 1942), Pz. battalion, and Pz. regiment (the latter two being deleted in late 1943).

See also German Vehicle Note N



4. PzKpfw II(Fl): First (and probably only) use of the Flamingo was in Russia. 155 were built. Survivors were withdrawn in early 1942 for conversion to tank destroyers. Flammpanzer II platoons were attached to several Pz. regiments, while others were used in Flammpanzer companies or battalions attached at corps or army level.

†The smoke discharger, if successfully fired, allows the placing of a smoke counter at a three (only) hex range within the tank's VCA. Any VCA change pertinent to using the sD is treated as per D13.32.



5. PzKpfw IIL: The Lynx (or Luchs) was a major redesign of the PzKpfw II, and was intended for reconnaissance only. 25 formed the complement of the Panzerspaehwagen Kompanie Type B, which were issued to the Aufklaerungs battalions of a few SS and elite Wehrmacht Pz. divisions. It was used on both Eastern and Western Fronts. The initial pro-

© 2000 Multi-Man Publishing, LLC

GERMAN VEHICLE LISTING

#	Name	WGT	Type	BPV	RF	Dates	Size	AF	TA	OT	CS	MP	GP	GT	MA	ROF	B#	IF	BMG	CMG	AAMG	Am	s#	sD	PP/T#	Notes
6	PzKpfw IB	6	Tt	30	.9-1.4†	34-41	+1	1			2	15	L	1MT	CMG	1	11			6†				6		1†,N[F]
6	PzKpfw IIA	9	LT	35	1.0	37-40	+1	1			3	15	L	RST	T20L	2 (4)	11			5				6		2
6	PzKpfw IIF	9.5	LT	36	1.2	40-43	+1	3/1			3	14	L	RST	T20L	2 (4)	11			5				7		3,N
3	PzKpfw II(Fl)	12	LTv	51	1.4	6/41-3/42	+1	3/1	+SR		**2**	16		1MT	**BF24**		**X11**			2				7†		4†
4	PzKpfw IIL	13	LT	41	1.5	44-45	+1	3/2			4	18		ST	T20L	2 (6)				5				7		5
6	PzKpfw 35t	10.5	LT	40	1.3	39-41†	+1	3/1			4	14	L	ST	T37	1			4	4				5		6†
6	PzKpfw 38(t)A	9.5	LT	43	1.1	39-42†	+1	3/1			4	15	L	ST	T37L	1			4	4		A4[1],5[2]		6		7†,E
6	PzKpfw 38(t)E	10	LT	44	1.1	41-42†	+1	4/2	+SR		4	14	L	ST	T37L	1			4	4		A4[1],5[2]		7		8†,E
3	Aufklaerer 38(t)	10	LT	38	1.6	4/44-45	+1	6/2	-F	•	5	14	L	ST	T20L	2 (6)				5	†					9,A†,E
2	FT-17 730m(f)	7	Tt	18	1.6	41-44	+1	1/0	+FSR		2	5†	L	1MT	CMG	1				4				"		9.1†,a,c,f
4	FT-17 730(f)	7	Tt	18	1.6	41-44	+1	1/0	+FSR		2	5†	L	1MT	T37*							AP9				9.1†,a,c,f
6	38H 735(f)	12	LT	29	1.4	41-44	+1	4	+FSR		3	12		1MT	T37					2†	†	AP10				9.2,a,b†,f
2	35-S 739(f)	19.5	MT	35	1.6	41-44	0	6/4	+SR		4	13†[1]		1MT	T47					2†[2]	†[2]					9.3,a,b†,d†[1,2],f
4	PzKpfw IIID	16	MT	41	1.4	37-39†	0	1	-F/+SR		5	12		T	T37L	2	11		3	8				6		10†
6	PzKpfw IIIF	19.5	MT	45	1.6-1.1†	39-41	0	3	-F/+SR		5	14		T	T37L	2	11		3	8		A4[1]		7		11†
6	PzKpfw IIIG	20.5	MT	50	1.1	8/40-41	0	3	+FSR		5	13		T	T50	2			3	5		A4[1]		7		12,N
6	PzKpfw IIIH	22	MT	53	1.5-.9†	41-42	0	6/3	-F/+SR		6	13		T	T50	2			3	5		A4[1]		7		13†,N
6	PzKpfw IIIJ	21.5	MT	58	1.1†	3/42-43†	0	6/3	+SR		6	13		T	T50L	2			3	5		A6[2]		7		14†,N,S
6	PzKpfw IIIL	23	MT	60	1.1-1.4†	7/42-44	0	6/3	+FSR		5	13		T	T50L	2			3	5	Opt2†	A6[2]		7		15†,B†,N,S
6	PzKpfw IIIN	23	MT	55	1.3	9/42-45	0	6/3	+SR		5	13		T	T75*	1			3	5	Opt2†	H9	9	7		16,B†,N[F],S
3	PzKpfw III(Fl)	23	MTv	60	1.5	7/43-45	0	8/3	+SR		3	13		1MT	**TF30**		**X11**		2	2				7		17
3	PzKpfw IVA	18.5	MT	42	1.4-1.5†	38-40	0	1	+SR		5	13	L	T	T75*	1	11		3	5		AP7	9	6		18†
4	PzKpfw IVC	19	MT	46	1.3-1.5†	39-42	0	3/1	+SR		5	14		T	T75*	1	11			5		AP7	9	6		19†
6	PzKpfw IVD	20	MT	50	1.4-1.5†	40-43	0	3/2	+SR		5	14		T	T75*	1			3	5		H6;AP7	9	7		20,N,R†
6	PzKpfw IVE	21	MT	53	1.4-1.5†	41-43	0	6/3	-F		6	14		T	T75*	1			3	5		H6;AP7	9	7		21,N,R†
6	PzKpfw IVF$_1$	22.5	MT	54	1.3-1.5†	6/41-43	0	6/3	+SR		6	14		T	T75*	1			3	5		H6;AP7	9	7		22,N,R†
6	PzKpfw IVF$_2$	23	MT	72	1.5-1.0†	6/42-43	0	6/3	+SR		6	14		T	T75L	1			3	5		A5[3]	8	6		23†,N,S
6	PzKpfw IVH	25	MT	73	1.5-.9†	8/42-45	0	8/3	-F/+SR		6	13		T	T75L	1			3	5	Opt2†	A5[2]	8	5		24†,B†,S
6	PzKpfw IVJ	25	MT	73	1.0	7/44-45	0	8/3	-F/+SR		6	13		ST	T75L	1			3	5	2	A3[4]	8	sN9		25,S
6	PzKpfw VD	43	MT	75	1.4	7-12/43	-1	18/6	-F		**5**	**15†**		ST	T75LL	1			1	5				5		26,F†
6	PzKpfw VG	45.5	MT	89	1.3-1.1†	10/43-45	-1	18/6	-F		6	15†		ST	T75LL	1			3	5	2			sN7[4]		27†,H†
3	PzKpfw M15/42(i)	15.5	MT	40	1.5	10/43-45	0	3	+F		4	13		RST	T47L	1			4	4	2					28,I
3	PzKpfw P26/40(i)	26	MT	53	1.6	44-45	0	8/4	-F		4	**13**		RST	T75					4	2		8			29,I
6	PzKpfw VIE	57	HT	87	1.5	12/42-44†	-1	11/8	+F		6	**12**		ST	T88L	1			3	5		A6[2]		7;M7†		30†,K,N[FF]
6	PzKpfw VIE (L)	57	HT	91	1.3	44-45	-1	11/8	+F		6	12		ST	T88L	1			3	5	2	A4[4]		sN7[4]		31,K
6	PzKpfw VIB	68	HT	105	1.4	6/44-45†	-2	26/8	-F/+SR		6	**11**	H	ST	T88LL	1			3	5	2			sN9		32†,K
6	StuG IIIB	20	AG	45	1.6-1.4†	5/40-43	+1	6/3			4	14		NT	B75*	1						H6;AP7	9	7		33†
6	StuG IIIG	23.5	AG	61	1.3-.9†	6/42-45	+1	8/3			4	13		NT	B75L	1					2†	A6[2]	8	7		34†,N[FF],P†,S
6	StuG IIIG (L)	23.5	AG	64	1.5	7/44-45	+1	8/3			4	13		NT	B75L	1				4†	1†	A4[4]	8	sN9		35,O†,Q†,S
3	StuH 42	24	AG	56	1.5-1.2†	11/42-45	+1	8/3			4	13	H	NT	B105						2†	H9	9	7		36†,N[FF],P†,S
2	StuH 42 (L)	24	AG	59	1.5	7/44-45	+1	8/3			4	13	H	NT	B105					4†	1†	H9	9	sN9		35,O†,Q†,S
4	StuPz IV	28	AG	72	1.4	7/43-45	0	11/3	+FSR		6	12		NT	B150*			•	Opt3†		Opt2	H7	9			37†,S
4	PzJg Tiger	65	AG/TD	75	1.6	7/43-44	-2	18/8	+SR		7	**8**	H	NT	B88LL	1			Opt3							38
4	StuG 75/18(i)	15	AG	40	1.4	10/43-45	+1	3	+F		3	13		NT	B75*		11				2†	H7	9			39,I,P†
3	StuG 75/34(i)	15	AG	43	1.5	10/43-45	+1	3	+F		3	13		NT	B75		11				2†		9			40,I,P†
3	StuG 105/25(i)	15.5	AG	49	1.5	10/43-45	+1	8/3	+SR		3	13		NT	B105		11	•			2†	H7	9			41,I,P†
2	StuG 75/46(i)	16	AG	51	1.6	10/44-45	+1	8/4	+FSR		3	12		NT	B75L		11				2†		9			42,I,P†
4	PzJg I	6.5	TD	34	1.4	5/40-43	+1	1/1/★T		•	3	16	L	NT	B47L	2						A5[1];HE7				43,N
3	PzJg 35R(f)	10.5	TD	32	1.5	8/41-44	+1	4/2	-FSR	•	3	8	L	NT	B47L	2						A5[1];HE7				44,a
4	Pz 35R 731(f)	10	LT		1.2-1.3†	8/41-45	+1	4/4	+FSR		2	8	L	1MT	T37*					2						44.1†,a
3	Marder I	8	TD	47	1.5-1.6†	9/42-44	+1	1		•	4	13	L	NT	B75L	2						A6[2];HE7	7			45†,a
6	GSW 39H(f) Pak	12.5	TD	51	1.6	6-8/44	+1	4/2	-FSR	•	3	12		NT	B75L	1						A4[4];HE9				45.1,a,e
4	Marder II	11	TD	45	1.2	5/42-45	0	3/1/★T	-FSR	•	4	13		NT	B75L	1					Opt2†	A6[2];HE7	7			46,M†,N[FF]
4	Marder III(t)H	11	TD	46	1.2	5/42-45	0	4/1/★T	-F	•	4	14	L	NT	B75L	1	*11*		4			A6[2];HE7	7	6		47,E,G,N[F]
4	Marder III(t)M	10.5	TD	48	1.1	5/43-45	0	2/1	-FSR	•	4	15	L	NT	B75L	2	*11*					A5[1];HE7	7	5		48,E
4	PzJg III/IV	24	TD	58	1.3	7/43-45	-1	3/2	-FSR	•	5	13		NT	B88LL	1					Opt2†	HE7				49,M†
5	JgdPz 38(t)	16	TD	54	1.1	8/44-45	+1	14/3			4	13		NT	B75L						1†	A4[4];HE7				50,E,O†
2	JgdPz 38(t) (Fl)	16	TDv	52	1.6	12/44-45	+1	14/3			4	13		NT	**BF30**		**X11**				1†					51,E,O†
4	JgdPz IV	24	TD	58	1.3	3/44-45	+1	11/3	+SR		4	13		NT	B75L	1			1			A4[4];HE7	7	sN7[4]		52,S
3	JgdPz IV (L)	25	TD	61	1.3	6/44-45	+1	14/3	+SR		4	12		NT	B75L	1			1			A4[4];HE7	7	sN8[4]		52,S
4	StuIG 33B	21	AG	72	1.6	11/42-10/43	0	6/4	+FSR		5	10	H	NT	B150*		*11*	•	3*			H7	9			53†
6	JgdPz IV/70	26	TD	66	1.5-1.2†	8/44-45	+1	14/3	+SR		4	11		NT	B75LL	1			1			HE7		sN9		54†,S
6	JgdPz V	46	TD	80	1.4	6/44-45	0	18/6			6	15†		NT	B88LL	1			3			HE7		sN9		55,H

© 2000 Multi-Man Publishing, LLC



VEHICLE LISTINGS KEY

† *If a † appears beside an entry, the indicated Note for the vehicle should be consulted.*

The number of counters of this type supplied in one game.

® Radioless AFV (D14).

WGT Combat weight in metric tons, rounded to the nearest half ton.

Type Tt = tankette. LT = light tank. MT = Medium Tank. HT = heavy tank. AG = assault gun. TD = tank destroyer. ht = halftrack. SC = scout car. AC = armored car. SPA = self-propelled artillery. SP = self propelled. AA = anti-aircraft gun. tr = truck. APC = armored personnel carrier. SPDC = SP Demolition Charge. MC = motorcycle. a = amphibious. v = variant.

BPV Basic Point Value. The DYO purchase cost of one piece of this type.

RF Rarity Factor. Indicates the relative rarity of one vehicle to another at any given time. .9=extremely common; 1.6=extremely rare. The Rarity Factor is based on production figures, and is included for DYO purposes only.

Dates Dates used after acceptance by that nation's army.

Size Target Size To Hit DRM (D1.7).

AF Armor Factor (D1.6). ★ = unarmored (D1.21). If ★ appears beside an AF, the AFV is partially armored (D1.22). If ★T appears beside an AF, the AFV's rear turret/upper superstructure is unarmored.

TA Turret Armor (D1.63-.64). + = superior; — = inferior. F = front Target Facing. SR = side and rear Target Facing.

OT AFV is open-topped (D1.23) if • appears.

CS Crew Survival Number (D5.6). If red, the vehicle has a tendency to brew up (D5.7) when destroyed; i.e., a -1 DRM applies to the Final To Kill DR for Burning Wreck determination (only). If italicized (in lower case type [cs#] on counter), it applies to passengers only (D5.6).

MP Movement Point Allotment. If red, the vehicle has a high breakdown tendency (D2.5-.51). The superscript ' indicates that the vehicle always expends MP as a truck.

GP Ground Pressure (D1.4). L = low (boxed ID letter on counter). H = high (circled ID letter on counter).

GT Gun Type (D1.3). T = fast traverse (D1.31). ST = slow traverse (D1.32). RST = restricted slow traverse (D1.321). 1MT = one man turret (D1.322). NT = non-turreted (D1.33).

MA Main Armament (D1.3). T = turreted. B = bow or non-turreted mount. F = flamethrower; ## = flamethrower FP. Note that flamethrower designation, FP, and X# are red (D1.8). Flamethrower FP is underlined if its normal range is 2 hexes; otherwise its normal range is 1 hex.

ROF Multiple Rate of Fire (C2.24). (#) = IFE (C2.29 & D3.5).

B# Breakdown Number (D3.7). If italicized (circled on the counter), the vehicle has a Low Ammo B# (D3.71). If red the reference is to the FT Breakdown Number; not necessarily the MA.

IF May not use Intensive Fire (C5.6) if • appears. Shown by "No IF" on the counter.

BMG Bow machinegun FP (D1.81).

CMG Coaxial machinegun FP (D1.82).

AAMG Anti-aircraft machinegun FP (D1.83).

SA Secondary Armament. For flamethrower see **MA**.

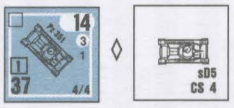
Am Special Ammo Availability. A = APCR (C8.1-.2). D = APDS (C8.2). AP = armor piercing (C8.8). HE = high explosive (C8.8). H = HEAT (C8.3). IR = illuminating round (C8.7). C = Canister (C8.4). The number is the Depletion Number (C8.9), and the superscript following it indicates the first year it applies (EX: $A6^4$ means the vehicle has A6 in 1944). Consult the counter for Depletion Number in subsequent years.

s# Smoke Depletion Number (C8.5). WP = white phosphorus (C8.6).

sD Smoke Discharger Usage Number (D13). A superscript following the Usage Number indicates the year it applies (EX: $sN7^4$ means that the vehicle has sN7 in 1944). Consult the counter for the Usage Number in subsequent years.

PP/T# Passenger/SW capacity in portage points (D6.1), and Towing Number (C10.1).

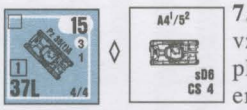
duction order was for 800 vehicles but was cancelled after only 104 had been built, since the design was not cost-effective. This cancellation occurred in spite of the fact that the balance of the vehicles were to have been armed with the high velocity 5cm gun.



6. PzKpfw 35t: 298 were built by the Czechs in 1936-39 as their main battle tank LT vz 35. Another 126 were exported to Rumania in 1936 where they were known as the R-2. When the Germans occupied Czechoslovakia they seized 219 LT vz 35s; the other 79 were kept by newly "independent" Slovakia. German use of the PzKpfw 35(t) was confined to the 6th Pz. Brigade of the 1st Light Division in Poland and later the 6th Pz. Division in France and Russia.

Errata: The name on the counter should not have the "t" in parentheses, since German Vehicle Note E does not apply to this AFV.

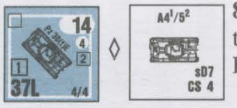
†Versions used by Rumania and Slovakia remained in service through 1942 (RF 1.5).



7. PzKpfw 38(t)A: A Czech AFV (the LT vz 38) originally ordered in 1938 as a replacement for the LT vz 35 but not delivered until after the German occupation. Impressed by its features, the Germans ordered its construction expedited. The PzKpfw 38(t) was used in Poland by the 1st and 3rd Light Divisions; in Norway; in France by the 7th and 8th Pz. Divisions; and in the Balkans campaign by the 8th Pz. Division. In Russia it was used by the 6th, 7th, 8th, 12th, 16th 19th 20th, and 22nd Pz. Divisions—and possibly others. In June 1941 more than one quarter of the total strength of the German Panzer units consisted of Czech tanks. 565 of the Ausf A-D and S were built.

†Used by Slovakia (RF 1.6) 1941-44.

See also German Vehicle Note E



8. PzKpfw 38(t)E: An uparmored version that was used mainly in Russia. 846 Ausf E-G were built.

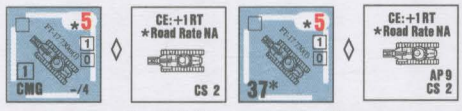
†Also used by Slovakia (RF 1.6) 1942-44; Rumania (RF 1.6) 1943-44; and Hungary (RF 1.5) 6/42-45.

See also German Vehicle Note E



9. Aufklaerer 38(t): This consisted of a late model 38(t) chassis combined with a PSW 234/1 turret—a stopgap design necessitated by the halting of PzKpfw IIL production. It was used in the Panzerspaehwagen Kompanie Type B (i.e., using the same organization as the PzKpfw IIL—although only one type was issued per company). Only 50 were built, but they saw action on both Eastern and Western fronts.

See also German Vehicle Notes A, E



9.1 FT-17 730(f) & FT-17 730m(f): A large number of older French tanks, predominantly FT-17s and FT-18s, were captured in 1940. Many had their turrets removed and used to build the Atlantic Wall; others were given to security troops, training depots, or used for police duties. The FT-17 730 and 730m represent both the FT-17s and FT-18s which were put into use by the German Army. They were, for the most part, updated by adding a radio to the vehicle.

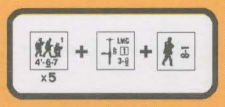
†Minimum road-MP cost is one MP; i.e., no FT-17 730 may use the $^1/_2$ MP road rate, even if CE—as signified "Road Rate NA" on the counter.

See also German Vehicle Notes a, c, f

© 2000 Multi-Man Publishing, LLC

#	Name	WGT	Type	BPV	RF	Dates	Size	AF	TA	OT	CS	MP	GP	GT	MA	ROF	B#	IF	BMG	CMG	AAMG	Am	s#	sD	PP/T#	Notes
5	JgdPz VI	70	TD	92	1.6	12/44-45	-2	26/8	+SR		7	**11**	H	NT	B128L				3			HE7		sN9		56
6	SPW 250/1	6	ht	28	1.2	9/41-45	+1	1		•	4	18			AAMG	1					3				9 PP/T9	57,N
2	SPW 250/sMG	6	ht	50	1.4	9/41-45	+1	1		•	4†	18			CMG	3				7†	3†				5 PP†	58†,J†,N
2	SPW 250/7	6	ht	42	1.4	9/41-45	+1	1		•	**4**	18		NT	B81*	2					3†	IR	8			59,J†,N
2	SPW 250/8	6.5	ht	43	1.5	7/43-45	+1	1		•	**4**	17		NT	B75*	2	*10*			Opt4†		H6	8			60,Q†
4	SPW 250/9	6	ht	36	1.2-1.3†	7/43-45	+1	1		•	4	18		ST	T20L	2 (4)				5	†					61†,A†
2	SPW 250/10	6	ht	40	1.3	9/41-45	+1	1		•	4	18		NT	B37L	3					3†	A4[1]				62,J†,N
12	SPW 251/1	9	ht	31	1.6-1.0†	39-45	+1	1		•	5	16			AAMG	1					3				15 PP/T7	63,C†,N
3	SPW 251/sMG	9	ht	48	1.6-1.3†	40-45	+1	1		•	5†	16			CMG	3				7†	3†				7 PP†	58†,C†,J†,N
4	SPW 251/2	9	ht	45	1.6-1.3†	40-45	+1	1		•	**4**	16		NT	B81*	3					3†	IR	8			59,C†,J†,N
2	SPW 251/9	9	ht	46	1.6-1.3†	9/42-45	+1	1		•	**4**	16		NT	B75*	2				Opt4†		H6	9			64,C†,N,Q†
4	SPW 251/10	9	ht	41	1.6-1.2†	40-45	+1	1		•	4	16		NT	B37L	3					3†	A4[1]			9 PP/T10	65,C†,J†,N
3	SPW 251/16	9	ht	47	1.4	43-45	+1	1		•	**4**	16		NT	**SF24**	**2†**	**X11**				3					66†
	SPW 251/21	9	ht	47	1.6	9/44-45	+1	1		•	4	16		T	T20L	3 (12)										66.1†
3	SPW 251/22	9.5	TDht	40	1.5	45	+1	1		•	**4**	15		NT	B75L	2	*10*				3†	HE7	7			67,J†
6	SPW S307(f)	8.5	TDht	42	1.6	6-8/44	0	0	+F	•	4	**10**		NT	B75L	1	*11*			3		HE9,A4[4]				67.1,a,e
4	mSPW S307(f)	8.5	SPA	50	1.6	6/8-44	0	0		•	4	**10**		ST	T81*		*10*	•				IR	5			67.2,a,e
4	Kfz 13	2	SC	23	1.5	33-40	+2	0	+F	•†	2	25[6]	H		AAMG	1					4					68†
4	PSW 221	4	AC	30	1.3	37-42	+1	1		•	2	34†		1MT	CMG	1				5	†			6		69†,A†,N
4	PSW 222	5	AC	36	1.2-1.3†	38-45	+1	1		•	3	33†		ST	T20L	2 (4)	11			5	†			6		70†,A†,N
4	PSW 222 (L)	5	AC	41	1.2	7/42-45	+1	2/1	-F	•	3	34†		ST	T20L	2 (6)				5	†			6		70†,A†,N[F]
4	PSW 231 (6 rad)	6	AC	32	1.4	33-40	0	0/1			4	23 †[6]		ST	T20L	2 (4)	11			4	Opt2					71†
6	PSW 231 (8 rad)	8.5	AC	41	1.3-1.4†	37-45	0	2/1	-F		4	35	L	ST	T20L	2 (4)	11			5				6		72†,N
4	PSW 232 (8 rad)	9	AC	46	1.3	7/42-45	0	3/1			4	33	L	ST	T20L	2 (6)				5				6		72,N[F]
3	PSW 233	9	AC	42	1.5	43-45	0	3/1	-F	•	5	33	L	NT	B75*	1	*11*					H8	9	7		73,N[F]
5	PSW 234/1	11.5	AC	40	1.4	7/44-45	+1	4/1		•	5	33		ST	T20L	2 (6)				5	†					74,A†
5	PSW 234/2	11.5	AC	59	1.5	10/43-45	0	4/1			4	33		ST	T50L	2				5		A5[5]		7		75
3	PSW 234/3	11.5	AC	45	1.5	7/44-45	+1	4/1	-F	•	5	33		NT	B75*	2				Opt4†		H8	9			76,Q†
3	PSW 234/4	12	AC/TD	40	1.5	45	+1	4/1	-F	•	**5**	32†		NT	B75L	2	*9*					HE7	7			77†
3	sIG IB	8.5	SPA	43	1.6	5/40-42	-1	1/1/★T	-FSR	•	**4**	12	L	NT	B150*		*9*	•				H6	9			78,G
3	sIG II	11	SPA	52	1.6	42-5/43	+1	3/1	-F/+SR	•	**4**	13		NT	B150*		*11*	•				H6	9			79,N
3	sIG 38(t)M	12	SPA	49	1.3	3/43-45	0	2/1	-FSR	•	**4**	14	L	NT	B150*		*10*	•				H6	9			80,E,N[FT]
3	PzA II	11	SPA	43	1.3	7/43-45	0	2/1/★T	-FSR	•	4	13		NT	B105		*11*				Opt2†	H5	8			81,M†
3	PzA LrS(f)	8.5	SPA	43	1.5	9/42-44	+1	0		•	4	12	L	NT	B150*		*9*	•				H4	8			82,N
4	GSW 39H(f)	12.5	SPA	54	1.5	6-8/44	0	4/2	-FSR	•	4	11		NT	B105		*11*					H4	7			82.1,a,e
3	PzA III/IV	24	SPA	49	1.4	7/43-45	-1	3/2	-FSR	•	6	13		NT	B150		*10*	•				H5	8			83
4	FlaKPz 38(t)	10	SPAA	37	1.4	44-45	0	2/1	-FSR	•	4	15	L	T	T20L	2 (6)					†					84,A†,E
4	37 FlaK/Pz IV	24	SPAA	42	1.3	5/44-45	0	6/3	-F	•	5	13		T†	T37L	2 (8)					†					85†,A†
	(Mobelwagen)						+1	6†T/3†T	★†	•	6	6		T	T37L	3 (12)					†					85†,A†
4	FlaKPz IV/20	22	SPAA	65	1.5	9/44-45	-1	4/3	-FSR	•	6	14		T	T20L†	3 (20)			3		†					86,A†
4	FlaKPz IV/37	25	SPAA	56	1.6	12/44-45	-1	6/3	-F	•	6	13		T	T37L	3 (12)			3		†					87,A†
4	SdKfz 10/4	5.5	AAht	35	1.3	39-45	+1	★			5	14†		T	T20L	3 (4)	11†				†					88,A†,D†,N
4	SdKfz 6/2	10.5	AAht	44	1.4	39-45	0	★			5	13†		T	T37L	3 (8)	†				†					89,A†,D†,N
4	SdKfz 7/1	11.5	AAht	55	1.4	42-45	-1	★			4	13†		T	T20L†	3 (20)	†				†					90,A†,D†,N
4	Kfz 4	2	AAtr	24	1.2	39-43	+1	★			3	30[1]			AAMG	1					6†					91†,N
4	2cm FlaK LKW	4	AAtr	30	1.2	43-45	0	★			5	24[6]		T	T20L	3 (4)	11				†					92,A†
4	3.7cm FlaK LKW	7.5	AAtr	39	1.2	43-45	-1	★			5	23[5]	H	T	T37L	3 (8)					†					92,A†
4	Goliath	.5	SPDC	40	1.5	7/43-45	+3	★				6	L†		DC[16]†		X11									93†,L†
6	Kfz 1	1	tr	12	1.6-.9†	39-45	+2	★			2†	30[5]	L†		AAMG	1					Opt3†				9 PP/T10	94†,L†,N
3	Kfz 1/20	1.5	atr	18	1.5-1.0†	6/42-45	+2†	★			2	31[3]	L†												9 PP	95†,L†
6	Opel 6700 (Blitz)	6.5	tr	16	1.0	39-45	0	★			6	28													21 PP/T7	96,N
6	Buessing-NAG 4500	10.5	tr	21	1.3	39-45	0	★			7	24[6]	H												29 PP/T2	96,N
4	SdKfz 2	1.5	htMC	12	1.1-1.4†	5/41-45	+2	★			2	22	L†												3 PP†/T10	97†,L†,N
4	SdKfz 7	10	ht	18	1.0	35-45	0	★			6	17													19 PP/T -4	98,N
4	SdKfz 11	6	ht	17	1.1	37-45	+1	★			5	18													16 PP/T 6	99,N

© 2000 Multi-Man Publishing, LLC






9.2 38H 735(f): One of the most abundant of the captured French tanks, the Hotchkiss variations spawned a whole series of German AFV conversions including self-propelled artillery, tank destroyers, and recovery vehicles. Many were pressed into service, however, as battle tanks in secondary theaters. All the Hotchkiss variations used by the Germans had the commander's observation cupola replaced by a split hatch, and all were equipped with radio equipment. Predominantly issued to reforming units, their first use was in 1941 in Finland. Ten independent platoons were sent to the Balkans to fight partisans. Typically, four tanks were allocated to a platoon with the commander of a platoon issued a captured French S-35. As late as December of 1944, the German Army still had 29 38H 735s in service.
See also German Vehicle Notes a, b, f

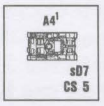



9.3 35-S 739(f): Despite the one-man turret, the SOMUAS-35 was considered the best tank to face the Germans in 1940. Upon capturing several hundred of them, the German Army quickly issued them to various training units. With the horrific tank losses in Russia during 1941-42, the Germans were forced to strip AFVs from units in secondary theaters and replace them with the 35-S 739. The 35-S 739 was also used for anti-partisan operations. The Germans modified the SOMUA by altering the commander's cupola and by adding a radio to each vehicle. Typically, the 35-S 739 was used as the commander's vehicle in a platoon consisting off four 38H 735s and one 35-S 739. As late as December of 1944, the German Army still had 12 35-S 739s in service.
See also German Vehicle Notes a, b, d, f



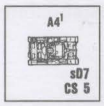

10. PzKpfw IIID: The PzKpfw III was intended be the main battle tank of the Pz. divisions but its elaborate and sophisticated design wasn't finalized until 1939. The game piece represents the various early models, with several different types of suspension, of which 90 were built. On September 1, 1939, a total of only 98 PzKpfw III were available to the Pz. divisions (some of which contained none at all during the Polish campaign).

†All the initial models were withdrawn from service 2/40 except for a few Ausf D that participated in the fighting in Norway, 4/40.

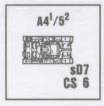



11. PzKpfw IIIF: This was the version accepted for mass production. The game piece and Date also represent the earlier Ausf E. 96 Ausf E and 435 Ausf F were built. In 1939-40, a full-strength PzKpfw III platoon consisted of three to five such AFVs, depending on the unit involved.

†1939 RF is 1.6.

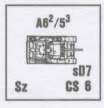



12. PzKpfw IIIG: In August 1940, Hitler had ordered that the PzKpfw III be upgunned with the long-barreled 5cm piece but, amazingly, was ignored by his Ordnance Department, which had already decided to use a medium velocity 5cm gun that had already passed its acceptance tests. About 550 of the Ausf G were built. In 1941 the official strength of a PzKpfw III platoon was increased to five vehicles.
See also German Vehicle Note N

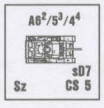
13. PzKpfw IIIH: With 308 produced, the Ausf H was not the most common PzKpfw III, yet it gained fame beyond its numbers due to the nightmares it caused the British in North Africa, where their 2 pdr guns had great difficulty defeating its frontal armor. Equivalent to the Ausf H in game terms however, are 1,549 early Ausf J, plus many more converted from the earlier Ausf E and F by installing the 5cm gun and bolting on extra armor; in this sense the PzKpfw IIIH (and its equivalents) can be considered to have been the backbone of the Panzer force in 1941-42. For Operation Sea Lion (the proposed invasion of England) some PzKpfw III were modified so that they could travel under water. Some of these Tauchpanzer were used by the 18th Pz. Regiment on June 22, 1941, to cross the Bug River at Patulin.

†Decrease RF by .1 for each two-month period after 2/41 until .9 is reached in 1/42.
See also German Vehicle Note N

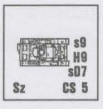
14. PzKpfw IIIJ: When in early 1941 Hitler learned that his earlier order regarding the installation of the long 5cm gun had been ignored, he ordered that it be immediately implemented. Even then, it did not begin to equip the PzKpfw III until the end of the year. In the desert this AFV came to be known to the British as the Mark III Special. 1067 were built. Beginning in early 1943, 262 PzKpfw III were converted into observation vehicles (termed Panzerbeobachtungswagen) for Panzerartillerie batteries. Rules for their use are given in H1.46.

†Availability in North Africa begins 5/42 (RF 1.5; decrease by 0.1 for each month thereafter until it equals1.1).
See also German Vehicle Notes N, S

15. PzKpfw IIIL: The game piece also represents the Ausf M and uparmored versions of the J. A total of 903 were built (L and M). Only about 20 PzKpfw III were with the German Pz. battalions that fought in Normandy—and most of these were used as command tanks.

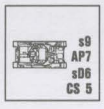
†RF is 1.4 in 1944.
See also German Vehicle Notes B, N, S

16. PzKpfw IIIN: With the growing obsolescence of the 5cm tank gun it was decided to convert production of the PzKpfw III to a support role, using the short 7.5cm gun of the early PzKpfw IV with its more effective HE capability. Prior to 6/43, ten were allotted to each Tiger Company. Others were used in the PzKpfw IV role, and yet others probably equipped the Pz. battalion included in each of the newly-renamed Pz. Grenadier divisions. A total of 700 were constructed.
See also German Vehicle Notes B, N, S




17. PzKpfw III(Fl): 100 were built, in consideration of experiences at Stalingrad. Each III(Fl) platoon had seven such AFV—usually two of which would be attached to a Pz. regiment HQ company when needed. First use was with the 6th, 11th, and Grossdeutschland Pz. Divisions during the battle of Kursk.

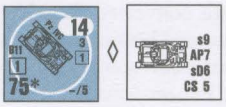



18. PzKpfw IVA: The PzKpfw IV was designed to be a support AFV, providing long range HE firepower. Foresight in design and reliability in use enabled it to be the only German tank to remain in production throughout the war—yet with only some 8,500 being built. The series had a modest beginning of only 35 Ausf A, which saw action in Poland, Norway, and France before being withdrawn. In 1939-40, a full-strength PzKpfw IV platoon had 4-6 such AFVs, varying from unit to unit. In 1939 each Pz. company contained only one PzKpfw IV platoon, except for the 1st Pz. Division which had a Medium Company (of 14 PzKpfw IV and 5 PzKpfw II) in its Pz. battalions, and the 1st Light Division which had eight PzKpfw IV per Pz. company.

†Pre-1940 RF is 1.4.

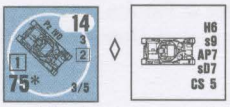
© 2000 Multi-Man Publishing, LLC





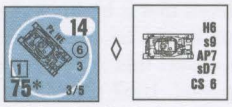
19. PzKpfw IVC: 134 were built. The game piece also represents the earlier Ausf B, of which 42 were produced in 1938. Neither model had a BMG. A few of these relics still labored on with the 21st and 116th Pz. Divisions in Normandy.

†Pre- 1940 RF is 1.3.



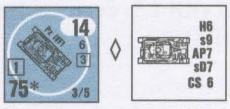
20 PzKpfw IVD: 229 were built. By the time of the invasion of France the Pz. battalion had been reorganized to have a Medium (PzKpfw IV) Company, although at this time many of them contained only one or two platoons of five PzKpfw IV (and five PzKpfw II) each.

See also German Vehicle Notes N, R



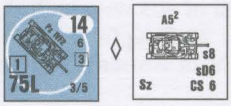
21. PzKpfw IVE: 223 were built. This model incorporated various minor changes and had applique armor on the hull and superstructure. Rommel's debut in North Africa included 40 Ausf D and E.

See also German Vehicle Notes N, R



22. PzKpfw IVF$_1$: 437 were built. In June 1942 some 200 Ausf B-F$_1$, were present on the Eastern front—although by the time of Kursk in July 1943, only 60 were still in use.

See also German Vehicle Notes N, R

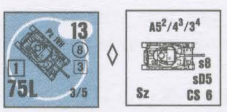


23. PzKpfw IVF$_2$: The 7.5cm KwK 40 L/43 version was ordered 11/41 as a countermeasure to the Russian T-34 and KV, whose appearance had instantly made the PzKpfw III—the fist of the Pz. division—obsolete since it could neither successfully trade blows with them nor be effectively upgunned to do so. 200 were built, but the game piece also represents about 1,000 of the Ausf G, which is indistinguishable from the F$_2$ in game terms. The British in North Africa referred to this tank as the Mark IV Special.

In 1943 the PzKpfw III was no longer capable of being considered a main battle tank in other than name. Consequently, in September of that year the Medium (PzKpfw IV) Company in each Pz. battalion was ordered dropped in favor of equipping all companies in one battalion with the PzKpfw IV, while the other battalion (presumably containing the PzKpfw III) was to be withdrawn to be re-equipped with the Panther. This took quite some time to fully accomplish.

†Decrease RF by .1 for each two-month period after 6/42, until 1.0 is reached in 3/43.

See also German Vehicle Notes N, S



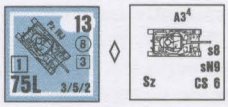
24. PzKpfw IVH: With 3,774 produced, this was numerically the most important PzKpfw IV and formed the mainstay of the Pz. divisions during the latter years of the war. The Date and game piece also represent about 700 Ausf G which had extra armor bolted onto the hull and superstructure front (the Ausf H itself actually became available during the spring of 1943).

An interesting gunnery aid found on the PzKpfw IV, Panther D, and Tiger E, was a rotating ring around the inside circumference of the commander's cupola. This cupola was marked from 1 to 12 like a clock, with further subdivisions also indicated. When the turret was traversed, the ring rotated at the same speed but in the opposite direction, thus allowing the commander to tell at a glance the turret's position relative to the vehicle's axis (something easily forgotten in the heat of battle). In addition, he used it to quickly bring the gun to bear on a target; for this purpose the gunner had a clock scale indicator which he had only to align according to the bearing given by the commander and the target would appear in his gunsight.

A full-strength PzKpfw IV platoon was officially comprised of five such AFV, but the ever-present tank shortage in reality reduced this to four in all but certain favored Pz. divisions.

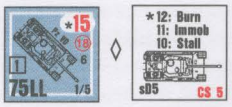
†RF is as follows: 1.5: 8/42-12/42; 1.3:1/43-6/43; .9: 7/43 on.

See also German Vehicle Notes B, S



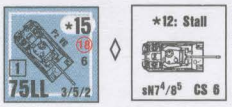
25. PzKpw IVJ: The Ausf J was the final production model of the PzKpfw IV, with the turret traverse motor removed to allow more fuel to be carried, and with a Nahverteidigungswaffe added for increased close-defense capability. 1,758 were built.

See also German Vehicle Note S



26. PzKpfw VD: The Panther D was the German answer to the T-34, designed after study of the merits of the Soviet tank—but with typical German complication. Its hasty design and premature commitment to battle made for a most inauspicious debut in the Kursk offensive however; its drive train and suspension were overstrained, while its engine overheated easily and had a tendency to catch fire (all due to the Panther's combat weight exceeding its design specifications by about 8 tons). Indeed, many more were lost due to mechanical failure than were destroyed by Russian guns (116 of the available 192 Panther tanks alloted for the Kursk offensive were in need of repair just 7 days into the campaign). 842 were built. The only units to employ the Panther at Kursk were Panzerabteilungen 51 and 52, forming the 10th Pz. Brigade which was attached to Panzer Grenadier Division Grossdeutschland the morning the offensive began. Of the 184 Panther Ausf. D's fully operational on the morning of 5 July, 1943, (the beginning of Operation "Zitadelle") only 44 would be running a mere 12 days later.

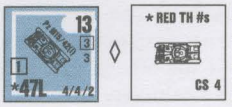
See also German Vehicle Note F



27. PzKpfw VG: Most of the Panther D's flaws were eventually rectified (although the later models' engines remained capricious), and in the Ausf G (and earlier A, which the game piece also represents) the panzer force had one of the best tanks of World War II. Its combination of firepower, mobility, and armor made it an extremely formidable opponent. The U.S. Army judged that it generally took five Shermans to destroy a Panther. Although over 5,000 were built (2,000 As and 3,126 Gs) and the 1944 Pz. Regiment establishment called for one battalion each of Panthers and PzKpfw IV (with the Panthers generally equipping the 1st battalion), there were—fortunately for the Allies—never enough to go around. Like the PzKpfw IV, the Panther—in other than favored Pz. divisions—was used in four-vehicle platoons rather than the five called for in the official establishment.

†1943 RF is 1.3.

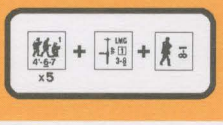
See also German Vehicle Note H

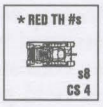


28. PzKpfw M15/42(i): This was the final version of the Italian M13/40 series of tanks. It was just coming into service when the Italian Army was disarmed by the Germans, and subsequently about 100 were used against the Allies. Most remained in Italy, but in 1944 some saw combat with the 22nd Maria Theresa Freiwilligenkavalleriedivision der SS in Hungary.

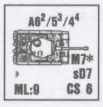
See also German Vehicle Note I

© 2000 Multi-Man Publishing, LLC



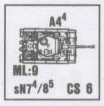
29. PzKpfw P26/40(i): This was an Italian heavy tank whose design had been started in 1940 (although by Sept. 1943 none had yet become operational with the Italian Army). After the Italian armistice the Germans seized the few that had been built and, seeing that it was a fair design with production facilities already set up, they continued its manufacture. Slightly over 100 in all were built, and were used only in Italy. A persistent shortage of engines resulted in about forty being used as static fortifications around the Anzio beachhead and in the Gustav Line.
See also German Vehicle Note I

30. PzKpfw VIE: The Tiger is probably the most legendary AFV of World War II. At the time of its introduction, its "88" gun—used in a tank for the first time—combined with its heavy armor, made it a most deadly adversary. Indeed, at that time it could rarely be knocked out except by a close-range flank or rear shot—although its great weight, lack of mobility, and poor reliability (due to a very complicated drive train and suspension) diminished its overall effectiveness. Tigers were used in independent heavy ("schwere") tank companies and battalions allotted as strategic reserves; although the Grossdeutschland had an organic Tiger company (7/43-8/43, and thereafter an entire battalion), as did the SS Leibstandarte, SS Das Reich, and SS Totenkopf divisions (1/43-3/44, 2/43-3/44, 7/43-3/44 respectively). A full-strength Tiger platoon consisted of four such AFV.

†Availability begins 1/43 in Russia and 12/42 in Tunisia.

†The Secondary Armament "M" was a number of mine dischargers mounted around the tank and fired from within as an anti-personnel close-defense weapon. It is used (in CC/melee only) just like a sN, but with 12 FP and no smoke placement ability.
See also German Vehicle Notes K, N

31. PzKpfw VIE(L): The final version ("(L)"in the piece name represents "late model") of the Tiger I, with modifications to increase reliability and close-defense. In all, 1,354 Tigers Ausf E were built, with production ceasing 8/44.
See also German Vehicle Note K



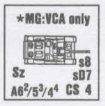

32. PzKpfw VIB: As the successor to the Tiger the Koenigstiger or Tiger II (also known to the Allies as the Royal or King Tiger) was used in the same manner, but its even greater weight reduced its mobility and reliability to the point where it was effective only on the defense. Its use in the Ardennes offensive was not impressive; its ponderousness impeded the speed of advance across the hilly countryside, and even a minor breakdown could cause its loss through the inability of the recovery vehicles to tow it. 489 were built. The first Tiger II unit to see action against the Western Allies (the British to be specific) was the 1st Company of Schwere Panzerabteilung 503.

†Availability begins 6/44 vs the Russians and 7/44 vs the Western Allies.
See also German Vehicle Note K



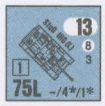
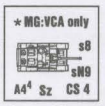
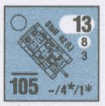
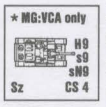

33. StuG IIIB: The Sturmgeschuetz was constructed on the PzKpfw III chassis and was used for the close support of infantry, although usually grouped in independent assault gun detachments. The game piece represents the Ausf A thru E, of which 684 were built. First combat use was in France, 1940; this consisted of six StuG each in Batteries 659, 660, 665, and 640 (which was attached to the Grossdeutschland Regiment).

†RF in 1940 is 1.6; 1.3 in 41-42; and1.4 in 43. Its only noteworthy use in Africa (other than a few later models in Tunisia) was one Ausf D used by Special Unit 288 during the Gazala battles, 5-6/42.

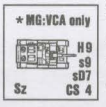



34. StuG IIIG: The Russian T-34 and KV compelled the Germans to reassess their AFV armament, so the StuG III was up-gunned concurrently with the PzKpfw IVF2. As Germany was driven more and more to a defensive stance, assault gun production was increased, as such AFV were both cheaper and quicker to produce than turreted tanks, and their lower height was advantageous in the ambush role. They were used in both assault gun and TD units. About 8,600 were produced, including 614 of the earlier Ausf F and F/8, which the game piece also represents. Another 1,100 were built on PzKpfw IV chassis but do not differ in game terms. One battery (six vehicles) was sent to Tunisia in late 1942 (RF 1.6).

†RF is 1.3 in 1942; 1.0 in 1943; and .9 in 1944-45.
See also German Vehicle Notes N, P, S

35. StuG IIIG(L) & StuH 42 (L): Various improvements were made to the late production StuG IIIG and StuH 42, among them being a CMG, a remote-control MG on the roof, and a Nahverteidigungswaffe. Not all these additions were always present together, but occasionally they were—and the game piece represents such a vehicle. "(L)" in the piece name indicates "late model". When used in a Panzerjaegerabteilung (TD battalion), a StuG platoon consisted of four StuG IIIG.
See also German Vehicle Notes O, Q, S

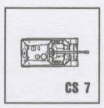
36. StuH 42: To increase their anti-personnel effectiveness, 1,211 StuG were built with an adapted leFH 18 field howitzer. Three StuH were ideally included in each StuG battery (which from the end of 1942 contained ten vehicles).

†1942 RF is 1.5.
See also German Vehicle Notes N, P, S




37. StuPz IV: The Sturmpanzer IV (dubbed the Grizzly Bear or Brummbaer) was designed in light of experiences at Stalingrad, where the smaller-caliber assault guns had been only marginally effective against well-fortified buildings. It was first issued to Sturmpanzerabteilung 216, whose first action was at Kursk. Later, Sturmpanzerabteilungen 217, 218, and 219 were formed, and fought on all fronts (including 216 at Anzio and 217 in the Ardennes). Some sources state that they were also issued to sIG (Sf) Kompanie (SP heavy infantry gun companies).

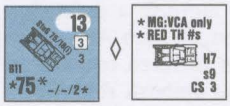
†Optional BMG (which is usable when the AFV is HD across its VCA) and AAMG are available as of 7/44 with RF of 1.3.
See also German Vehicle Note S

38. PzJg Tiger: The Ferdinand, also known as the Elefant, was a conversion of the 90 Porsche I Tigers—which had not been accepted for production. Assigned to Panzerjaegerabteilungen 653 and 654, they were first used in the northern pincer of the Kursk offensive—but instead of being employed as long range TDs, they were put in the forefront of the attack as superheavy assault guns. Their thick armor allowed them to drive deep into the Russian defenses where, without infantry support and lacking MGs, they were overwhelmed by Russian tank-hunter teams using FT and DC. 39 were lost during the Kursk fighting, and the remainder fought on for the rest of the year, finally being pulled out from the Nikopol area in late 1943. 48 were then modified by the addition of a BMG and a redesigned superstructure roof. Of these a few were used in Italy in

© 2000 Multi-Man Publishing, LLC

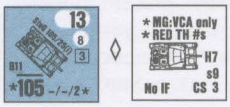
1944 (as early as 2/44 at Anzio), and again in 12/44 south of Bastogne against the U.S. 4th Armored Division. BMG is automatically available as of 1944.



39. StuG 75/18(i): This was the Italian Semovente M42 75/18 (the assault gun version of the M15/42 tank), of which 178 were confiscated or subsequently built by the Germans in occupied Italy. They were used only in Italy and the Balkans.
See also German Vehicle Notes I, P



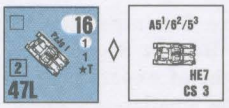
40. StuG 75/34(i): This was the same vehicle as the StuG 75/18(i), but using the same gun as the PzKpfw P26/40(i). It was an Italian design that had not yet become operational when the Germans seized control of Italy. The Germans continued its manufacture, with 116 eventually being built, plus another 11 using the chassis of the StuG105/25(i). The StuG 75/18(i) and StuG 74/34(i) were the most common Italian AFV in German service in both Italy and the Balkans.
See also German Vehicle Notes I, P



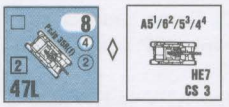
41. StuG 105/25(i): This was the Italian Semovente M43105/25, of which 26 were confiscated from the Italian Army in Sept. 1943. The Germans subsequently continued its manufacture, with 91 more being built in 1943-44. They were used only in Italy and the Balkans.
See also German Vehicle Notes I, P



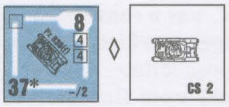
42. StuG 75/46(i): This was a German-designed variant of the StuG 105/25(i) with better armor and an adapted Italian AA gun. 29 were built. They were used only in Italy.
See also German Vehicle Notes I, P



43. PzJg I: This was the first of the many German self-propelled AT guns. It consisted of an ex-Czech 4.7cm AT gun on the chassis of the PzKpfw I. A total of 202 were built. In most cases, a full-strength Panzerjaeger platoon consisted of four TD.
See also German Vehicle Note N



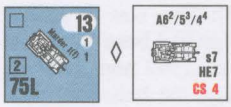
44. PzJg 35R(f): This was the second German SP AT gun, and incorporated certain improvements over the PzJg I. 174 were built, using the chassis of captured Renault R35 tanks. They were kept in secondary theatres and at the beginning of 1944 there were still 110 in use, mostly in France.
See also German Vehicle Note a



44.1 Pz 35R 731(f): A considerable number of Renault R35's were captured during the French Campaign of 1940. Most were issued to troops operating in secondary theaters where they were used in an anti-partisan role. They were issued to just one regular unit of the panzer corps, that being the 100th Panzerbrigade of the 21st Panzer Division in 1943. Six platoons of R35's were sent to the Channel Islands in 1941. The final years of the war would see this tank scattered throughout infantry divisions that garrisoned France.

This counter is found in *ASL* Module 2 *Paratrooper*.

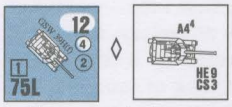
† RF is as follows: 1.2: 8/41-6/43; 1.3: 7/43-45
See also German Vehicle Note a



45. Marder I(f): Marders were stopgap mobile AT guns necessitated by the Russian T-34 and KV. They consisted of a captured Russian 7.62cm field gun (or later when available the 7.5cm PaK 40) hurriedly mounted on an obsolete tank chassis and given a rudimentary shield for crew protection. Their weak armor rendered them ineffective in other than ambush and long range situations. They were issued mainly to Panzerjaeger (tank-hunter or TD) detachments.

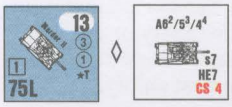
The Marder I was a conversion of the French Lorraine Schlepper (Tractor). 170 were converted, of which 131 were still on the Western Front at the beginning of 1944.

†Most were used in France; RF elsewhere is 1.6.
See also German Vehicle Note a

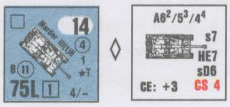


45.1 GSW 39H(f) PaK: Similar to the Marder I but with the a modified chassis from the French Hotchkiss H39. The modifications were significant, leaving only the hull pan and the nose armor of the original Hotchkiss tank. Several vehicles were based upon the chassis for the H35. Armed with the excellent PaK 40/L46, this Geschutzwagen was a lethal vehicle in an ambush role, but lacked the armor to duel with Allied AFVs. 24 vehicles were converted in 1942 and were still in service in France during the Normandy invasion.

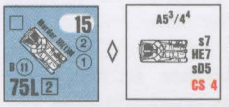
This counter is found in *HASL* Module 4 *Pegasus Bridge*.
See also German Vehicle Note a, e



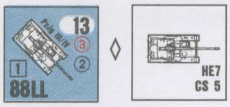
46. Marder II: This was a converted PzKpfw IIF, but the game piece also represents the earlier PzKpfw IID version mounting the Russian 7.62cm gun, which was very similar in game terms. 852 of both types were built.
See also German Vehicle Notes M, N



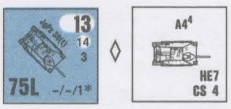
47. Marder III(t)H: This was converted from the late model PzKpfw 38(t). The game piece also represents the earlier (and cruder) SdKfz 139 Marder III, of which 47 were used by the Afrika Korps (with the first six arriving 5/42). 417 IIIH and 463 SdKfz 139 were built.
See also German Vehicle Notes E, G, N



48. Marder III(t)M: This had its engine in the middle of the chassis and its fighting compartment in the rear, as opposed to the H which had them in the front and middle respectively. The Ausf M was a much more efficient vehicle from the production standpoint, but carried only 27 rounds of ammo. 975 were built before production was switched to the Hetzer.
See also German Vehicle Note E



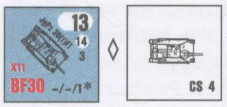
49. PZJg III/IV: The Rhino (Nashorn), also known as the Hornisse (Hornet), consisted of a composite PzKpfw III/IV chassis carrying the 8.8cm PaK 43/1. It was used on all fronts by Heavy TD units. First action was with the 655th schwere Panzerjaegerabteilung (Heavy TD Detachment) in Russia. 494 were built.
See also German Vehicle Note M



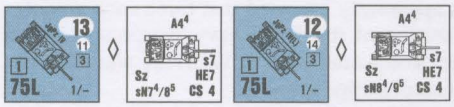
50. JgdPz 38(t): The Hetzer (Troublemaker or Agitator) was a light SP AT gun on the proven chassis of the PzKpfw 38(t), and was used to replace the many makeshift conversions (Marders, etc.) of earlier years. About 2,500 saw action (although very few, if any, fought in Nor-

© 2000 Multi-Man Publishing, LLC

mandy). Hetzers were primarily issued to independent TD battalions and those that were organic to infantry divisions. 100 were supplied to Hungary, 10/44-1/45.
See also German Vehicle Notes E, O

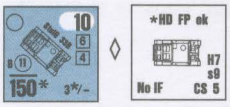


51. JgdPz 38(t) (Fl): 20 Hetzers were converted to FT vehicles in late 1944 and were used in the Ardennes offensive.
See also German Vehicle Notes E, O



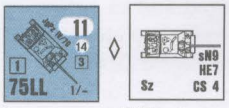
52. JgdPz IV & JgdPz IV(L): This was the intended replacement for the StuG III. Designed specifically as a TD, it used the PzKpfw IV chassis and had well-sloped armor. A 1944 TD battalion often contained a mixture of StuG III and JgdPz IV.

A total of 769 JgdPz IV were built. The "(L)" in the piece name indicates "late model".
See also German Vehicle Note S



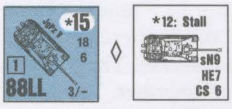
53. StuIG 33B: The completion of work started in 1927. The 15cm Sturm-Infanteriegeschutz was the result of 15 years of upgrades, retrofits and field modifications which spawned a variety of self propelled mounts that saw action during the war. Only 24 were produced. The first 12 were issued to Sturmgeschutz Abteilung 177, which arrived in Stalingrad on 11/8/42. All 12 were lost in or around the city. The second 12 vehicles were issued to the Sturm-IG Batterie attached to the Lehr Battalion XVII Armee Korps and later to the 22nd Panzer Division. The surviving 7 units were incorporated into Pz Regiment 201 of the 23rd Panzer Division as "StuIG Battr./Pz. Regt. 20." and all were reported lost in October of 1943.

†The BMG of the StuIG 33B may fire while the vehicle is HD, as signified by "HD FP ok" on the counter.

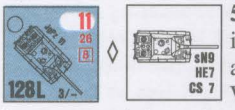


54. JgdPz IV/70: The JgdPz IV mounting the Panther 7.5cm gun was first available in only small numbers. Its long gun and thick frontal armor made it very nose-heavy and difficult to steer. About 1,200 were built.

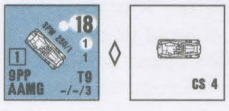
†RF is 1.5, 8-11/44; and 1.2, 12/44 on.
See also German Vehicle Note S



55. JgdPz V: With its gun, armor, and speed, the Jagdpanther was one of the most potent TD of the war. Its greatest drawback was its rarity; only about 390 were built. Use of the Jagdpanther in Normandy was limited to the 12-14 vehicles of 2nd Company, schwere Panzerjaegerabteilung 654.
See also German Vehicle Note H



56. JgdPz VI: The Jagdtiger was the heaviest, most heavily armored (up to 250mm), and most powerfully armed AFV of WWII; truly a mobile fortress. However, its great weight and relative immobility limited its usefulness to a basically static defensive role. There appears to be no evidence that any were ever used against the Russians. Only 77 were built, and were issued to only schwere Panzerjaegerabteilung 653 and schwere Panzerabteilung 512.



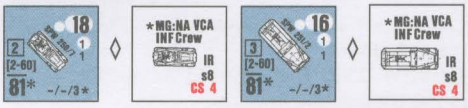
57. SPW 250/1: This halftrack was designed to carry an infantry HS in the Pz. Aufklaerungs (armored reconnaissance) companies of a Pz. division. About 6,600 of all versions were built. A Pz. Aufklaerungs platoon consisted of six SPW 250/1 plus one SPW 250/1 or /10 for the platoon commander.
See also German Vehicle Note N



58. SPW 250/sMG & 251/sMG: The HMG carriers of the armored infantry. Two 250/sMG were included in the 4th (Heavy Weapons) platoon of each Pz. Aufklaerungs company; two 251/sMG were included in the 4th (Heavy Weapons) platoon of each armored infantry company.

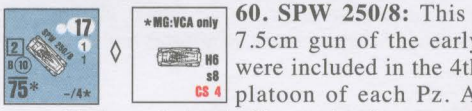
†The halftrack carries a 7 FP CMG which can be Removed (D6.631) only as a LMG; it also carries a 3 FP AAMG which can be Removed from the vehicle (by the crew or a passenger) as a dm HMG. Both MG may be Scrounged, but only as LMG. The CMG has a range of 16 (like its infantry SW counterpart), but cannot fire outside the VCA (as signified by "CMG:VCA" being printed on the counter); otherwise, it is treated as a normal CMG.

†The halftrack starts each scenario with an inherent crew, and also a 2-4-7 (or as otherwise specified by SSR) HS as a passenger. PP capacity is not affected by the AAMG/dm HMG, but is affected normally (D6.1) by the passenger HS.
See also German Vehicle Notes C (251/sMG only), J, N

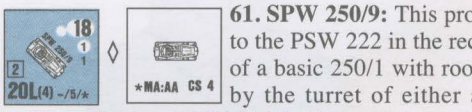


59. SPW 250/7 & 251/2: Treat as a normal OT SP gun for To Hit purposes. The mortar's range is 2-60, and is removed dm (A9.8), leaving the vehicle with an inherent driver. Two 250/7 were included in the 4th (Heavy Weapons) platoon of each Pz. Aufklaerungs company; two 251/2 were included in the 4th (Heavy Weapons) platoon of each armored infantry company.

† **Errata:**The SPW 250/7, and SPW 251/2 ht start each scenario manned by an Inherent Infantry (i.e., 2-2-8) crew as signified by "Inf Crew" on the back of the counter. When such a crew exits their vehicle their ID should be recorded since it differs from a normal Infantry crew by having vehicular-crew capabilities.
See also German Vehicle Notes C (251/2 only), J, N

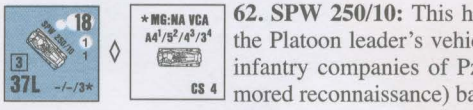


60. SPW 250/8: This mounted the short 7.5cm gun of the early PzKpfw IV. Two were included in the 4th (Heavy Weapons) platoon of each Pz. Aufklaerungs company. Each carried only 20 rounds of ammo.
See also German Vehicle Note Q



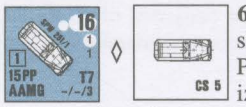
61. SPW 250/9: This provided an alternative to the PSW 222 in the recon role. It consisted of a basic 250/1 with roof armor surmounted by the turret of either a PSW 222 (in the early models) or PSW 234/1. Three platoons (of four 250/9 each) equipped one PSW company (denoted as Type C in early 1944) in the Pz. Aufklaerungs Abteilung. Most were used on the Eastern Front where their increased cross-country mobility was needed.

†RF is 1.2 vs Russians.
See also German Vehicle Note A

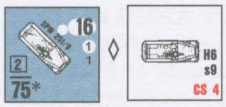


62. SPW 250/10: This halftrack was used as the Platoon leader's vehicle in some armored infantry companies of Pz. Aufklaerungs (armored reconnaissance) battalions.
See also German Vehicle Notes J, N

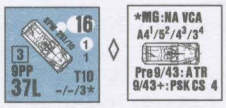
© 2000 Multi-Man Publishing, LLC



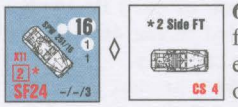
63. SPW 251/1: This halftrack was designed to carry the armored infantry of the Pz. divisions. However, it should be realized that generally only about one-fourth—i.e., one battalion—of the infantry in a Pz. division were thusly equipped (usually two battalions in elite and SS Pz. divisions) and even this level of usage was not reached until 1942. The "standard" allotment of armored infantry during the invasion of France was only one company per Pz. division. Over 15,000 of all models were built. First use was with the 1st Pz. Division in Poland.
See also German Vehicle Notes C, N



64. SPW 251/9: This halftrack (nicknamed the Stummel (Stump)) mounted the short 7.5cm gun of the early PzKpfw IV. Two were included in the 4th (Heavy Weapons) platoon of each armored infantry company, two in the HQ company of each armored infantry battalion and Pz. division, and six in the Heavy Weapons company of each armored infantry and Pz. Aufklaerungs battalion.
See also German Vehicle Notes C, N, Q

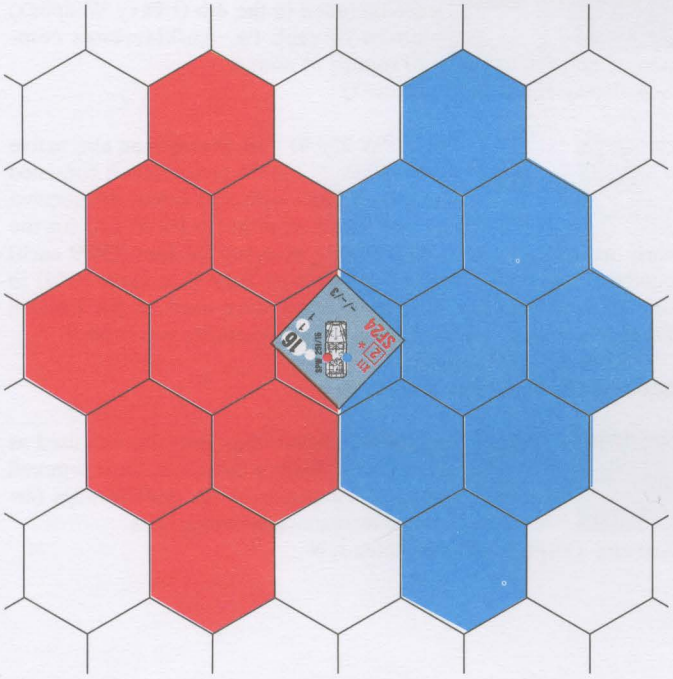


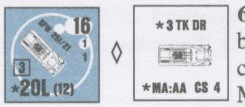
65. SPW 251/10: This was the armored infantry platoon leader's vehicle. It also carries an ATR, or as of 9/43 a PSK—either of which may be Removed (D6.631) by the crew or a passenger, or Scrounged (D10.5).
Errata: The German SPW 251/10 ht should have "Pre 9/43: ATR; 9/43+: PSK" on the back of the counter.
See also German Vehicle Notes C, J, N



66. SPW 251/16: A platoon of six was officially allotted to the HQ company of each armored infantry regiment, and another platoon was assigned to the same unit's Panzerpioneer company.

†This actually had two FT With limited traverse—one on each side (as denoted by "SF" (Side FT) rather than "BF" on the counter). Therefore, the vehicle's FT may fire twice in a fire phase, the port-side FT can fire once within the red area in the diagram, and the starboard side FT can fire once into the blue area. If in Bypass, each FT can fire only within its respective Bypass side Target Facing. An Original Effects DR of ≥ 11 for either attack eliminates both FT.

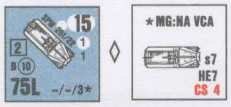




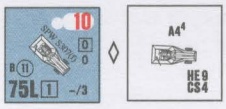
66.1 SPW 251/21: When the Luftwaffe began uparming its aircraft with 30mm machine-cannons, numbers of now-surplus MG 151 15mm and 20mm rapid-fire aircraft guns were made available to the Heer. Some of these weapons were installed in specially built halftracks for use in both ground and AA roles. Designated the 251/21, this halftrack carried in its passenger compartment a modified Kriegsmarine pedestal mount with three such guns of the same caliber. Production of the SPW 251/21 began in the late summer of 1944, but relatively few were produced. It was apparently intended that three such vehicles would equip the AA section of the 4th (Heavy Weapons) platoon in each panzergrenadier kompanie. Two SPW251/21 were left behind in La Gleize by Kampfgruppe Peiper.

†Make three To Kill DR on the MG column when using the AP To Kill Table; only one DR (firer's choice) is used.

This counter is found in *HASL* Module 2 *Kampfgruppe Peiper I*.

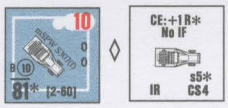


67. SPW 251/22: The basic SPW 251 mounting a 7.5cm PaK 40 AT gun, with 22 rounds of ammo. It was intended to replace all the towed AT guns in the 1945-establishment Pz. division.
See also German Vehicle Note J



67.1 SPW S307(f): The German Army had been using the captured SOMUA MCG as a vehicle to tow artillery pieces, but in an effort to increase the number of AFVs in the backwater theaters of the war, a number of these vehicles were converted to serve in a variety of roles. One SOMUA MCG variant was the *panzerjäger* conversion. By mounting a 7.5 cm PaK 40 to the bed of the halftrack, a crude tank destroyer was formed. The driver of the conversion sat in front of the gunshield of the PaK, which was mounted to the rear of the halftrack. This conversion, though awkward, gave a usually static weapon decent cross-country mobility and a limited amount of protection for the crew. Sixteen vehicles were converted and in action in France during 1944 and were deployed in 4-vehicle platoons.

This counter is found in *HASL* Module 4 *Pegasus Bridge*.
See also German Vehicle Notes a, e



67.2 mSPW S307(f): The most unusual of the SOMUA conversions was a self-propelled multiple mortar launcher. This vehicle mounted 16 captured French 81mm Brandt mortars in two rows in the rear of the halftrack upon a hand-crankable turret providing 360-degree traverse. The 16 barrels were arranged so that they were elevated together. The outer three tubes could be turned outward a few more degrees to provide even greater coverage. A mechanism was created which held the mortar shells in the tubes, and by pulling a lanyard would release the bombs. The shells were not fired simultaneously, but rather in a rapid succession, thus simulating a barrage of mortar fire. Only 90 rounds were carried by the vehicle, and reload time was rather significant. Because of the dispersed nature of its attack, hits are resolved in the target hex at 6 FP (instead of the normal 8 FP). Besides the attack on the target hex, the two adjacent hexes (called the secondary hexes) in the (alternate) hexgrain perpendicular to the LOF are also attacked with the same DR, but at only 4 FP and only if there is an enemy unit in the target hex. If the LOF enters the target hex directly along a hexspine, then the two adjacent hexes directly perpendicular to the LOF are the secondary hexes. Otherwise the two secondary hexes are chosen randomly. If the Original colored dr of the TH DR is even, the secondary hexes are the two hexes adjacent to both the target hex and to the hex that the LOF exits when enter-

© 2000 Multi-Man Publishing, LLC

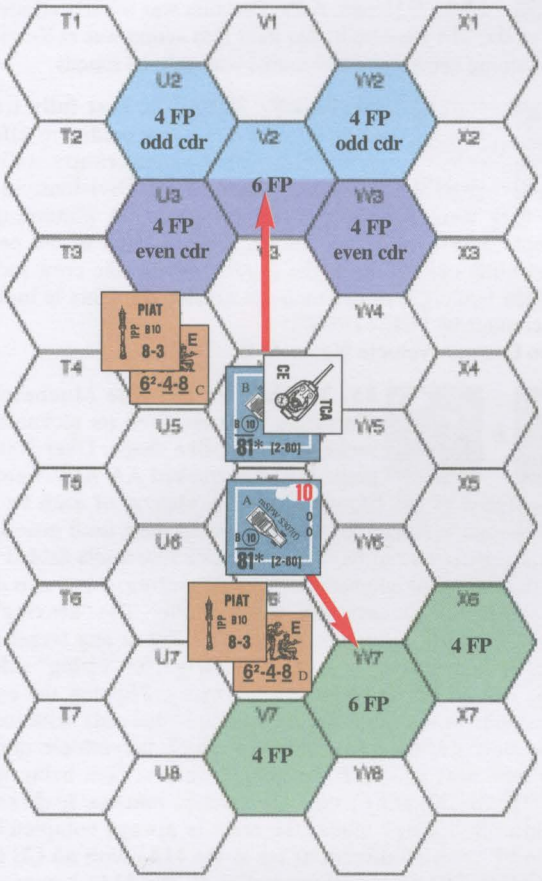
ing the target hex. If the colored dr is odd, the secondary hexes are the two hexes adjacent to both the target hex and to the hex the LOF enters upon exiting the target hex. The hex affected by any CH is selected randomly, and is attacked at 16 FP.

This counter is found in *HASL* Module 4 *Pegasus Bridge*.

†This vehicle was open to the rear, but the mortars themselves provided some protection. Furthermore, the turret represents the 360-degree traverse of the mortars, and only the mounting for the mortars rotated when the turret was traversed. The CE DRM is +1 vs Indirect Fire, as well as vs Direct Fire that emanates from within the rear VCA. All hits use the VCA facing, regardless of which way the TCA is pointing. All Direct Fire hits that emanate from within the rear VCA (and only such hits) qualify for the rear Target Facing TK DRM.

†When full strength Smoke is placed in the target hex, dispersed Smoke is also placed in the secondary hexes. When firing Smoke, Case K applies if there are no Known enemy units in the target hex and there are non-Known (to the vehicle) enemy units in any of the potential secondary hexes.

See also German Vehicle Notes a, e



EX: Halftrack A attacks target hex W7 with 6 FP and secondary hexes X6 and V7 with 4 FP. Halftrack B attacks target hex V2 with 6 FP. The secondary hexes it attacks with 4 FP are chosen randomly; if the Original colored dr of the TH DR is even, hexes U3 and W3 are attacked; if the colored dr is odd, hexes U2 and W2 are attacked. The exposed crew of either halftrack attacked by the inherent FP of squad C receives a +1 CE DRM because the attack emanates from the rear VCA. Similarly, a PIAT hit by squad C against either halftrack would receive the +1 Case A increase to its Basic TK# due to a rear hit, even if halfrack B were hit in the turret. All attacks by squad D against either halftracks receive the normal +2 CE DRM, and the Basic TK# of a PIAT hit by squad D versus the turret of halftrack B would not be increased by Case A.

68. Kfz 13: Popularly referred to as the Badewanne (Bathtub), the Kfz 13 was nothing more than a lightly armored Adler touring car. They were used extensively in Poland, and some were used in France. 147 were built. They were issued to cavalry regiments and the heavy companies of infantry division recon battalions.

†The crew is always CE (D6.84).

69. PSW 221: Issued to the AC companies of Light, Pz., and motorized infantry division recon battalions. 339 were built. The 1939 light armored car platoon consisted of four SdKfz 221 and four SdKfz 222.

†Reverse movement costs this vehicle four times its normal hex entry cost—signified by "REV×4" on the counter.

Errata: The PSW 221 SC should have "BU FP NA" on the counter; All 1MT restrictions apply in the normal manner *[EXC: the crew must be CE to fire the CMG]*.

See also German Vehicle Notes A, N

70. PSW 222: Supplemented, then superseded the PSW 221 in AC companies. 989 were produced. In 1942 a modified version (signified by "(L)" on the counter) was introduced. A PSW 222 platoon consisted of four PSW 222 and two PSW 223 (long range radio variant, which in game terms can be represented by the PSW 221).

†Reverse movement costs this vehicle three times its normal hex entry cost—signified "REV×3" on the counter.

†RF becomes 1.3 from 1943 on.

See also German Vehicle Notes A, N

71. PSW 231(6 rad): Built on a three-axle heavy truck chassis. 123 of the six-wheeled 231 and 232 (long-range radio variant) were produced. They were used in Poland and France in the same manner as the PSW 231(8 rad). Some (RF 1.5) had a 2 FP AAMG.

†Reverse movement costs this vehicle twice its normal hex entry cost-signified "REV×2" on the counter.

72. PSW 23l(8 rad) & 232(8 rad): At the time of their design these AC, known as Achtrads, were the most advanced cross-country wheeled vehicles in the world, having 8-wheel drive and steering, fully independent suspension, and a rear driver. Achtrads were used in support of the light AC and were highly valued in Russia for their excellent off-road characteristics. A total of 607 of the eight-wheeled 231 and 232 were built. The 232 model (long-range radio variant) was built concurrently with the 231, but in 1942 production of the latter ceased while the 232 was continued in a modified form. Through 1943, six PSW 231/232 formed the 4th (Heavy Weapons) platoon of the PSW 221/222-equipped Pz. Spaehwagen Kompanie (armored car companies); later they were probably used like the PSW 234/1.

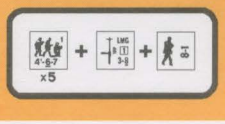
†RF becomes 1.4 from 1943 on.

See also German Vehicle Note N

73. PSW 233: Support version of the SPW 231 (8 rad), armed with the short 7.5cm gun of the early PzKpfw IV. Initially, one platoon of six was part of the Pz. Aufklaerungs battalion HQ. After 1943 the PSW 233 was employed in the same manner as the PSW 234/3. 119 were built.

See also German Vehicle Note N

© 2000 Multi-Man Publishing, LLC

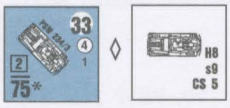




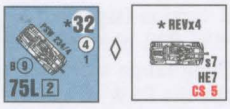
74. PSW 234/1: 200 were built, with production commencing some nine months after that of the PSW 234/2. The main deficiency of the PSW 234/1 was its continued use of inadequate armament—although it now had AA capability. 19 PSW 234/1 were included in each Panzerspaehwagen Kompanie Type D.
See also German Vehicle Note A



75. PSW 234/2: The Puma was the original design for the PSW 234 series, and retained most of the earlier PSW 231 (8 rad)'s virtues while having better armor and a 12 cylinder air-cooled diesel engine. 101 were built. 25 formed the complement of the Panzerspaehwagen Kompanie Type A. It was issued to four Pz. divisions and saw action on both the Eastern and Western fronts.

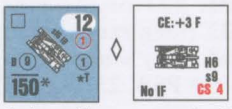


76. PSW234/3: This was the support version of the 234 series, and carried the short 7.5cm gun of the early PzKpfw IV. Only 88 were built. Six formed the 4th (Heavy Weapons) platoon in the Panzerspaehwagen Kompanie Type D.
See also German Vehicle Note Q

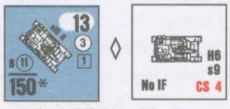


77. PSW 234/4: 89 Pakwagen were constructed by the order of Hitler himself in an attempt to increase the number of mobile AT guns. The conversion left room for only 12 rounds of ammo. Moreover, the rear driving position was omitted. The 234/4 was apparently intended to be used in the 1945-establishment Pz. Aufklaerungs Abteilung.

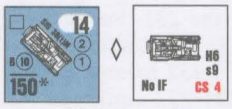
†Reverse movement costs this vehicle four times its normal hex entry cost—as signified by "REV×4" on the counter.



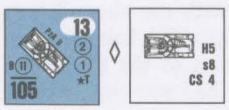
78. sIG IB: The sIG I was the German Army's first attempt at SP artillery, combining the PzKpfw IB chassis with the sIG 33 Infantry Gun. Its nickname was the Grandfather (Staumvater). 38 were converted and issued (six per company) to sIG (Sf) Kompanie (SP Heavy Infantry Gun Companies) 701-706, which were allotted respectively to the 1st, 2nd, 5th, 7th, 9th, and 10th Pz. Divisions prior to the invasion of France.
See also German Vehicle Note G



79. sIG II: This was the sIG 33 Infantry Gun on an enlarged PzKpfw II chassis. Only 12 were built, and all were issued to sIG (Sf) Kompanies 707 and 708 and sent to the Afrika Korps.
See also German Vehicle Note N



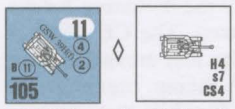
80. sIG 38(t)M: The Cricket (Grille), or Bison as it was also known, used a specially designed chassis (the same as later utilized for the Marder IIIM) to effect a more permanent solution to the need for efficient mobility in the SP Heavy Infantry Gun Companies of Armored and motorized infantry regiments. Its chief drawback was that it carried only 15-18 rounds of ammo. 282 Ausf M were built, plus 90 of the earlier Ausf H.
See also German Vehicle Notes E, N



81. PzA II: The Wasp consisted of a field howitzer on a much-modified PzKpfw IIF chassis. 676 were built. Two batteries of six Wasps each were usually allotted to a Pz. division. First major action was at Kursk.
See also German Vehicle Note M



82. PzA LrS(f): A World War I German howitzer mounted on the French Lorraine Schlepper. It was first issued to the Afrika Korp's 21st Pz. Division. 94 were built. Its normal ammo stowage was only eight rounds.
See also German Vehicle Notes a, N



82.1 GSW 39H(f): 105mm Howitzer mounted on a modified French Hotchkiss H39 chassis. This Geschutzwagen was armed with one of either the 10.5cm leFH18 or the older 10.5cm leFH16. For game purposes these are identical. Forty-eight of these conversions were produced and were still in action during 1944.

This counter is found in *HASL* Module 4 *Pegasus Bridge*.
See also German Vehicle Notes a, e



83. PzA III/IV: The Hummel (Bumblebee) used the same PzKpfw III/IV chassis as the Nashorn, but mounted a heavy field howitzer. A Pz. Division was usually allotted one battery of six. 714 were built, and their first action was at Kursk. The onboard ammo capacity of a Hummel was only 18 rounds.



84. FlaKPz 38(t): The first fully tracked German SPAA AFV; a mediocre effort at combating Allied air superiority. 140 were built and issued to Pz. Divisions; in Normandy they were used in the HQ company AA platoon of Pz. Regiments 3, 33, Lehr, and SS Pz. Regt. 1. Due to the need to fold down the upper part of the superstructure, the crew receives a +1 DRM while CE rather than the normal +2. This is indicated on the counter by "CE:+1FSR".
See also German Vehicle Notes A, E



85. 37 FlaK/Pz IV: The Moebelwagen (Furniture Van) received its nickname because of its box-like shape. Over 200 were built. 8-12 full-tracked AA AFV were generally assigned to the HQ company AA platoon of each Pz. regiment, although in some cases AA halftracks were used instead.

†This vehicle had to have its superstructure walls folded down before its gun could be used properly. Therefore, it has two different versions—one on each side of the counter. The "Moving" side has the higher MP allotment, but cannot fire at any target at the same level as or at a lower level than itself. The "Firing" side permits the MA to fire at all targets normally. Flipping the counter from one side to the other can be accomplished only with its crew CE, and only during a fire phase in which the vehicle does not enter a new hex, and as if the vehicle were a Gun being unlimbered (C10.21-.22) *[EXC: the crew remains inherent to do so]*.

†While in "Firing" mode, the crew is always completely exposed to FP from all directions (as is the MA) with no CE DRM, and Random SW Destruction applies to the MA; however, the AFV is not considered to be an unarmored target via its superstructure. In other words, while in "Firing" mode, a turret hit is always considered to have struck an armored target, but the crew/MA is always treated as being in an unarmored vehicle.
See also German Vehicle Note A



86. FlaKPz IV/20: The Wirbelwind (Whirlwind) was a PzKpfw IV chassis carrying the 2cm Flakvierling gun. 105 were constructed. They were issued to Pz. divisions. Four were combat-tested by the Panzer Lehr Division in Normandy.

†Make four To Kill DR when using the 20L column of the AP To Kill Table; only one DR (firer's choice) is used.
See also German Vehicle Note A

© 2000 Multi-Man Publishing, LLC





87. FlaKPz IV/37: The Ostwind (Eastwind) mounted the 3.7cm FlaK 43 in basically the same vehicle as the Wirbelwind, but only 43 were built before the war's end.
See also German Vehicle Note A



88. SdKfz 10/4: The first German SP AA gun. 610 were built. They were used by both Army and Luftwaffe AA units. Some armored infantry and motorized infantry regiments were issued a FlaK company of 12 AA halftracks (three per platoon). A Pz. division's FlaK battalion also contained four platoons of SdKfz 10/4.
See also German Vehicle Notes A, D, N



89. SdKfz 6/2: 339 were built. They were used by Army and Luftwaffe units. The Heavy Weapons companies of armored infantry and Pz. Aufklaerungs battalions also theoretically included AA halftracks.
See also German Vehicle Notes A, D, N



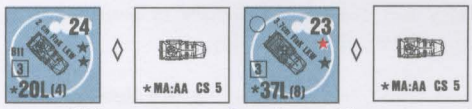
90. SdKfz 7/1: 319 were built. A platoon of three was usually allotted to the HQ company AA platoon of each Pz. and Panzerjaeger battalion, but often other AA halftracks were substituted. A platoon was sometimes also present in the Pz. division's FlaK battery, replacing one of the SdKfz 10/4 platoons.

†Make four To Kill DR on the 20L column when using the AP To Kill Table; only one DR (fire's choice) is used.
See also German Vehicle Notes A, D, N



91. Kfz 4: A standard light military car carrying a twin-MG AA mount. It was used to protect motorized columns.

†Make two To Kill DR on the MG column when using the AP To Kill Table; only one DR (firer's choice) is used.
See also German Vehicle Note N



92. 2cm & 3.7cm FlaK LKW: The Germans mounted light AA guns on many different types of trucks and heavy cars. There was little standardization since many of them were actually local field modifications; so in the game they are represented generically. Two were often allotted to the division HQ company of the Pz. division.
Errata: The MA of the German 2cm FlaK LKW truck should be "20L"—not "20".
See also German Vehicle Note A



93. Goliath: This was a remotely controlled (via wire) full-tracked SP demolition device that was guided to its target and then detonated. Several different models were built, with different motors (electric or gasoline) and HE payloads, so the game piece is generic. Depending on the model, it carried 132-165 lbs. of high explosive (a rare late model carried 220 lbs.) and was used primarily by special Pioneer units for the destruction of strongpoints and the clearance of minefields. Initially its use met with success—but as Allied troops came to recognize it and learned of its vulnerability to even small arms fire, they were more often than not able to destroy it long before it could reach its target. 7,600 of all models were built.
See also German Vehicle Note L

A Goliath, since its M# is 11, can be towed by any vehicle having a T# of ≤ 11; to be (un)hooked it must be (un)limbered as if a non-QSU Gun. A Goliath can also, when unlimbered, move under its own power via remote control; the controller can only be its unpinned, Good Order, purchase-associated HS (the Goliath's BPV includes the purchase of a 3-3-8 HS). Control/detonation of a Goliath is considered use of a SW. Remote control itself does not cause loss of concealment/HIP, but if the controller becomes pinned/broken/BU the Goliath must immediately stop and cannot be detonated until the controller is free of this condition (if the controller becomes berserk/captured/eliminated the Goliath is immediately eliminated). To be remotely controlled the Goliath must start its MPh in the LOS of its controller and is treated as a fully-tracked AFV for movement purposes *[EXC: it does not pay MP for VCA change; it is immediately eliminated if it enters a non-dry stream; it can enter a wire/rubble hex or cross a wall/roadblock/hedge/bocage hexside but is immobilized (though not eliminated) when it does so; it cannot carry any PRC/PP or make an OVR]*. The Goliath has a range of 16 hexes; i.e., it may not be farther than 16 hexes from its controller while unlimbered. If for any reason the range becomes greater than this (e.g., if the controller breaks and routs away), the Goliath is immediately eliminated. When a Goliath enters a hex to which the LOS from its controller is Hindered, it must undergo a Bog DR using all applicable modifiers. A bogged Goliath is treated like any other bogged vehicle. If the Goliath moves out of its controller's LOS it must likewise undergo a Bog DR: in this case however, if the Bog DR is failed the Goliath is immediately eliminated; if it passes (and has MP remaining) it can continue to move, but if the next hex it enters is also not in the controller's LOS it is immediately eliminated. A controller cannot move in the same MPh as his Goliath moves, nor vice versa; he can, however, advance in the same Player Turn in which his Goliath moves.

A Goliath attacks (and may attack the same targets) as a Placed DC, but with 36 FP. A Goliath can be detonated (i.e., attack) in a friendly AFPh—but only if its controller can use a SW and is unpinned, non-BU, in Good Order, and has a LOS to both the Goliath and at least one enemy unit or bridge that can be affected by its attack. If a Goliath becomes a Burning Wreck or is detonated, it explodes in the same manner as a 36 FP Placed DC attack *[EXC: the Goliath has X11, used as per A23.4]* vs all unarmored units in its hex and a 16FP DC attack vs such units in each hex adjacent to it. The same effects DR is used to resolve all attacks. Placement is considered to be at the level occupied by the Goliath; treat as Successfully Positioned (C7.346) vs the weakest rear AF of each AFV in the Goliath's hex *[EXC: if the designated target in the Goliath's hex is a single stopped AFV, the Goliath is treated as Optimally Positioned; C7.346]*, and as Poorly Positioned vs any AFV in the adjacent hexes (using the Target Facing the AFV presents to the Goliath's hex). An exploding Goliath can affect a Fortification counter (or minefield; use B28.62) only if in the same hex with it. Alternatively, a Goliath can be detonated at any time during another friendly fire phase, provided the above-mentioned controller conditions are met; such use incurs a +2 Effects DRM (regardless of whether or not the Goliath/target are moving/in Motion).

For defensive purposes a Goliath is always treated as an unarmored vehicle. CC vs a Goliath is always sequential; moreover, the Goliath can attack in the CCPh (in its sequential order) by its controller detonating it (the above-mentioned +2 DRM does not apply). A Goliath cannot be captured in CC. The Goliath counter is removed whenever it attacks or is destroyed—and if destroyed such that it would have become a burning wreck if it had wreck capability, it instead automatically detonates.

A Goliath detonated by Defensive First Fire does not leave Residual FP.

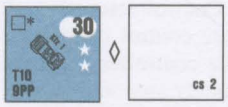
For stacking purposes a Goliath is considered a SW (A5.4). When used in connection with the Goliath, the term "immedi-

© 2000 Multi-Man Publishing, LLC



ately eliminated" implies removal from play before any chance to detonate it.

Errata: The counter should have three white stars on the Limbered side.



94. Kfz 1: The Kuebelwagen was the military version of the VW and had its troop trials during the invasion of Poland. It was thereafter put into mass production, with 52,018 eventually being built. It was an extremely popular vehicle, but not as versatile as the Jeep. Optional AAMG RF is 1.2.

†RF is 1.6 in 1939-40; 1.4 in 1941; 1.2 in 1942; .9 thereafter.

†The vehicle, if armed, has an inherent crew and thus has a CS# rather than a cs# (D5.6).

See also German Vehicle Notes L, N

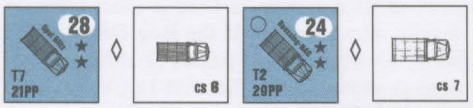


95. Kfz 1/20: The Schwimmwagen was an amphibious version of the Kuebelwagen. It was primarily used as a recon vehicle and by HQ units. Over 14,000 were built.

†RF is 1.5 in 1942; 1.2 in 1943; and 1.0 from 1944.

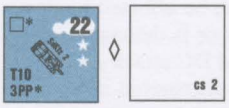
†The Target Size To Hit DRM is +3 (and also HD) if in a Water Obstacle or deep/flooded stream hex.

See also German Vehicle Note L



96. Opel 6700 & Buessing-NAG 4500: The German Army used a bewildering assortment of softskin vehicles, both domestic and captured. Thus, only a token representation of two common truck types are listed in the game. Should a DYO situation require the use of extra trucks, the German player may supplement his own with those of other nationalities—taking into consideration the date and Front of the scenario.

See also German Vehicle Note N



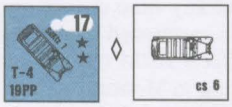
97. SdKfz 2: The Kettenkrad was a small tracked vehicle steered by the front-wheel assembly of a motorcycle. Used mostly on the Eastern Front for liaison and for towing light guns in parachute units. First used during the fighting on Crete. 8,345 were built.

†May also carry a crew or HS as Riders. A Kettenkrad may not be pushed, and is treated as a vehicle (i.e., not a motorcycle) for all purposes.

†Vehicle is immune to hidden Anti-Tank mine attacks, and Anti-Personnel mine attacks against it are halved as Area Fire.

†RF is 1.4 when used vs other than Russians.

See also German Vehicle Notes L, N



98. SdKfz 7: The most common (over 12,000 built) German halftrack prime mover. Used to tow medium and heavy artillery and 88s.

See also German Vehicle Note N



99. SdKfz 11: Another of the standard halftrack prime movers designed for the German Army. About 25,000 chassis of this type were built, of which some 16,000 were completed with SPW 251 bodies.

See also German Vehicle Note N

GERMAN MULTI-APPLICABLE VEHICLE NOTES

A. MA and CMG (if so equipped) have AA capability—signified by "MA:AA" being printed on the counter.

B. Optional AAMG is available 1944-45 with RF of 1.3.

C. Subtract .1 from RF for each year after that listed as the vehicle's initial year of availability, until its final listed RF is reached.

D. This vehicle is assumed to be towing an ammo trailer which, by its owner's announcement, can be unhooked at the start of its MPh if it is not in Motion and its crew is CE. Unhooking is accomplished by simply flipping the counter over to the side showing no trailer. Its MP allotment is thus increased (although the act of unhooking the trailer costs the vehicle one-fourth of this new MP allotment), and its B# becomes 11. *[EXC: 10 for SdKfz 10/4]*. The trailer is always assumed to be hooked up at the start of a scenario, and an unhooked trailer cannot be hooked up again. A hooked-up trailer is otherwise treated as per C10.4-.41.

E. As signified by the "(t)" in the piece name, this AFV used the extremely reliable and durable chassis of the PzKpfw 38(t); therefore, it receives a zero Nationality DRM when risking Excessive Speed Breakdown (D2.5).

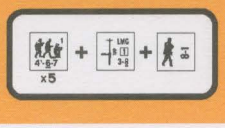
F. The results of a Mechanical Reliability DR (D2.51) for a Panther D are modified as follows. If a 12 is rolled, its engine has caught fire and the Panther is replaced by a burning wreck (the crew automatically survives, with a scrounged German LMG). If an 11 is rolled, Immobilization occurs normally as per D2.51. If a 10 is rolled, the Panther has stalled; its owner must then immediately make another DR, which equals the total number of Delay MP (including one MP to stop, but excluding the MP expended to start) that the AFV has used in the unsuccessful attempt to move. It can again attempt to move, but must expend another MP to start—and must undergo another Mechanical Reliability DR as it does so. An AFV that stalls is subject to Defensive First Fire (since it has expended a MP to start), but not as a moving target unless it had already entered a new hex during the same MPh. Should a Stall result in more Delay MP being expended than the AFV has available, the AFV is considered to have expended its entire MP allotment in Delay.

G. Gunshield yields +3 DRM against incoming fire through vehicle's front Target Facing instead of the normal +2 DRM for CE status. This is shown on the counter by "CE: +3" on the reverse side. This Note does not apply to pre-1943 scenarios for the Marder IIIH.

H. Each time a Panther G or Jagdpanther expends one MP to start, its owner must make a DR; if a 12 is rolled, the AFV has stalled and has not actually begun to move. The owner must then immediately make another DR, which equals the total number of Delay MP (including one MP to stop, but excluding the MP expended to start) that the AFV has used in the unsuccessful attempt to move. It can again attempt to move, but must expend another MP to start—and must undergo another Stall DR as it does so. If the owning player forgets to make this Stall DR, the opposing player can thereafter call for it to be made at any time during that same MPh as the AFV expends any MP. An AFV that stalls is subject to Defensive First Fire (since it has expended a MP to start), but not as a moving target unless it had already entered a new hex during the same MPh. Should a Stall result in more Delay MP being expended than the AFV has available, the AFV is considered to have expended its entire MP allotment in Delay.

I. Uses red To Hit numbers. The "(i)" in the piece name indicates "Italian", for ESB purposes.

© 2000 Multi-Man Publishing, LLC



J. AAMG may not fire within the VCA—as signified by "MG: NA VCA" printed on the counter.

K. A Tiger crew was the creme de la creme of the Panzer force. Therefore, as an inherent crew its morale is 9 (signified by "ML:9" on the counter), and the Tiger's printed APCR Depletion number (if one is present on the counter) is one higher than normal.

L. Vehicle has Low Ground Pressure (D1.41)—signified by its identity letter being inside a square. Moreover, when this vehicle is bogged, one (only) CX squad (even a Prisoner—but not a Guard) on foot expending ≥ four MF in the vehicle's hex Location (and declared to be assisting its unbogging) thereby allows the owning player to subtract 2 (1 per crew/HS) from the colored dr of its immediately subsequent unbogging DR.

M. Optional AAMG RF is 1.3.

N. This vehicle was used in North Africa at some time from 3/41 to 5/43 (within the limits of its own given Date). If the superscript "F" appears, the vehicle was used in small numbers only (RF = 1.5; if normal RF is ≥ 1.5, North Africa RF = 1.6). If the superscript "T" appears, the vehicle's use in NA was limited to Tunisia, 11/42-5/43 (within the limits of its own given Date).

O. The AAMG is remotely controlled; it can fire only while the AFV is BU, cannot be used by a Rider, and may never fire at an aerial target (or one whose elevation advantage is > the AAMG's range to it). Otherwise it is treated as a normal AAMG.

P. The AAMG may not fire outside of the VCA—as signified by "MG:VCA only" being printed on the counter.

Q. The CMG may not fire outside of the VCA—as signified by "MG:VCA only" being printed on the counter. Otherwise, it is treated as a normal CMG, but is available only after 9/44 (RF 1.3).

R. RF is 1.5 in 1943.

S. This AFV can have Schuerzen (D11.2).

a. This vehicle uses French modifiers for ESB, thus the "(f)" after the name of the vehicle.

b. The CMG may be repositioned as a 2 FP AAMG. This can be done only by placing an AA counter on the AFV at the end of any friendly fire phase (not MPh) in which its Inherent crew is CE and could have fired the MG (even if malfunctioned) but did not. This AAMG may fire only at a target that lies within the AFV's TCA—as signified by "AAMG:TCA only" on the counter. The AAMG may be repositioned as the CMG by using the same principles to remove the AA counter.

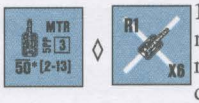
c. The CE DRM is +1 vs Indirect Fire, as well as vs Direct Fire that emanates from within the *turret's* rear Target Facing—as signified by "CE:+1 RT" on the counter.

d. Before any type of Immobilization result due to an attack *[EXC: one caused by mines, or by a Direct Fire hit vs the front or rear Target Facing]* takes effect vs this AFV, a subsequent dr must be made. If this dr is ≤ 4, Immobilization occurs; if ≥ 5, it does not. This is signified on the counter by "Immob: dr ≤ 4".

e. This vehicle is only available for use in Normandy, France.

f. Use German-color French LMG for a MG scrounged from this vehicle.

GERMAN ORDNANCE NOTES



1. 5cm leGrW 36: The standard German light mortar was issued on the scale of three per rifle company; these were often distributed individually to the company's platoons. It was rather complex for such a small weapon and, being little more than a glorified grenade launcher (like all such small caliber mortars) with insufficient range and punch, it was mostly relegated to second-line and reserve units after 1942. Its nickname was the Bulettenschmeister (meatball thrower).
See also German Ordnance note N



2. 8cm GrW 34: A conventional medium mortar whose actual caliber was 81.4mm. It was the standard battalion support weapon, with six being issued to the machinegun company of each; these in turn were often distributed two per company within the battalion. In a foot-infantry unit the mortar was hand-carried when in action, but for long moves was carried in a horsecart. One interesting type of ammunition fired by the GrW 34 was the "bouncing bomb", which rebounded into the air when it struck the ground; then at a height of 15-50 feet it exploded with an enhanced fragmentation effect. This round usually worked well if it struck hard ground but functioned poorly (if at all) when the ground was soft, so in 1942-43 it was withdrawn. Later in the war the GrW 34 was supplemented by a lightened, shorter-range version called the kz GrW 42. This variant had been intended for use in airborne units but eventually saw more general issue, often being used in infantry companies.

†RF is 1.1 prior to 1943; .9 in 1943 and thereafter.
See also German Ordnance note N



3. 10cm NbW 35: This mortar was designed to equip the Nebeltruppen, whose primary task was to lay smoke screens. When the Nebeltruppen were re-equipped with Nebelwerfer rocket launchers the NbW 35 were relegated to use as conventional mortars. Relatively few were built.
See also German Ordnance note O



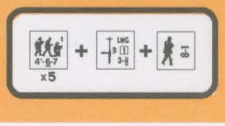
4. 12cm GrW 42: In 1941 the Germans captured large numbers of the excellent Soviet 120mm mortar and were so impressed by them that they produced an almost exact copy for their own use. A platoon of four GrW 42 was often found in the 4th (machinegun/Heavy Weapons) company of the infantry/Panzergrenadier battalion.

†RF is 1.4 in 1943 1.3 thereafter.



5. 2.8cm sPzB 41: A light AT gun (or heavy ATR, as the Germans designated it) using a barrel whose bore was tapered toward the muzzle. The round had a 2.8cm caliber in the breech but, due to malleable skirts around the projectile (which were squeezed back by the tapered bore), the emerging projectile had only a 2cm caliber. The advantage of this design was that as the base area of the projectile decreased, the propellant exerted a proportionally increased pressure on it, thereby greatly increasing its muzzle velocity. The drawbacks were rapid bore wear and the need for large amounts of scarce tungsten. The projectile required a tungsten carbide core since, with a muzzle velocity of some 4600 ft/sec, a normal steel AP round would simply shatter upon impact. In 1942 however, the general shortage of tungsten necessitated a ban on its use in AT rounds, and as the ammunition supply dwindled the taper-bore guns fell into disuse. The sPzB 41 was built in only limited num-

© 2000 Multi-Man Publishing, LLC



GERMAN ORDNANCE LISTING

#	Name	Type	CSize	ROF(IFE)	B#	Range	M#	TSize	Dates	Special	BPV	RF	Notes
5	5cm leGrW	MTR	50*	3		2-13		—	36-45	5 PP	—	—	1, N
4	8cm GrW 34	MTR	81*	3		2-60	11	+1	35-45	NT, QSU, s8, IR	30	1.1-.9†	2†, N
2	10cm NbW 35	MTR	105*	2		8-75	**10**	+1	37-42	NT, QSU, s10	24	1.5	3, O
4	12cm GrW 42	MTR	120*	2		12-151	**9**	+1	43-45	NT, QSU, s8	26	1.4-1.3†	4†
4	2.8cm sPzB 41	AT	28LL	2			12	+1	6/41-43	NT, QSU, Uses APCR TK Table†	24	1.3†	5†, A†, N, P
4	3.7cm PaK 35/36	AT	37L	3		120	12	+1	36-45	NT, QSU, $A4^1/5^2/4^3/3^4$, H6[9]†	30	1.0	6, B†, N, P
4	4.2cm lePaK 41	AT	40LL	2			11	+1	42-43	NT, QSU, uses APCR TK Table†	30	1.4	7, A†, N^T
4	5cm PaK 38	AT	50L	3		75	10	+1	41-45	NT, QSU, $A5^1/6^2/5^3/4^4$	37	1.3-1.0†	8†,N
4	7.5cm PaK 97/38	AT	75	2	11	275	8	0	9/41-44	NT, QSU, H6, s7	36	1.4	9, N^T
4	7.5cm PaK 40	AT	75L	2		192	8	+1	42-45	NT, QSU, $A5^2/4^3/3^4$, s7	43	1.5-1.1†	10†,N^T
4	7.62cm PaK 36r	AT	76L	2		260	7	+1	7/41-45	NT, QSU, $A5^2/4^3/3^4$, s6	42	1.5-1.2†	11†,N
3	8.8cm PaK 43	AT	88LL	2		379	**4**	0	44-45	T, LF [88†, 1 ROF, B11, **M4**, -1]	67	1.3	12, C†
2	8.8cm PaK 43/41	AT	88LL	2		375	**5**	-1	6/44-45	NT	50	1.4	13
2	12.8cm K 81/1	AT	128L	1	11	610	**-2**	-1	45	NT, NM	48	1.6	14
4	7.5cm leIG 18	INF	75*	2		115	10	+1	32-45	NT, QSU, H7	34	1.0	15, N, O
2	15cm sIG 33	INF	150*			118	**6**	-1	38-45	NT, H7, s8	44	1.3	16, N
2	7.5cm LG 40	RCL	75*	1	11	163	11	+1	5/41-45	T, QSU, H6	31	1.4	17, N^T
2	10.5cm LG 42	RCL	105*		11	182	10	0	42-45	T, QSU, H6, s6	37	1.5-1.3†	18†, N^T
2	7.5cm leFK 16nA	ART	75	1	11	235	8	0	34-45	NT, QSU, H5, s8, h-d	31	1.3	19
3	10.5cm leFH 18	ART	105	1		266	**6**	0	36-45	NT, H6, s8	38	1.0	20, N
2	s 10cm K 18	ART	105L	1	11	475	**2**	-1	34-45	NT, H6, s8, NM	42	1.4	21, N
2	15cm sFH 18	ART	150			243	**2**	-1	38-45	NT, H6, s8, NM	42	1.2	22, N
2	15cm K 18	ART	150L			621	**-4**	-1	38-45	NT, RFNM, AP6	36	1.5	23, N^T
2	17cm K 18	ART	170L			700	**-4**	-1	42-45	NT, RFNM, AP6, no IF	36	1.5	24, N
4	2cm FlaK 30	AA	20L	3 (4)	11	120	10	+1	35-45	T, LF [20†, 2 ROF, B10, NT]	27	1.1	25, C†, N
4	2cm FlaK 38	AA	20L	3 (6)		120	10	+1	39-45	T, LF [20†, 2 ROF, B11, NT]	32	1.0	26, C†, N
2	2cm FlaKvierling 38	AA	20L	3 (20)		120	8	-1	41-45	T, 4TK DR†	46	1.2	27†, N
4	3.7cm FlaK 36 o. 37	AA	37L	3 (8)		164	8	0	36-45	T, H5[9]†	36	1.3	28,B†, N
2	3.7cm FlaK 43	AA	37L	3 (12)		164	8	-1	8/44-45	T	38	1.4	29
4	8.8cm FlaK 18 o. 36	AA	88L	2		370	**4**	-1	33-45	T, $A5^2/4^3/3^4$, LF [88L†, 1 ROF, B11]	55	1.2	30, C†, N

ORDNANCE LISTINGS KEY

† *If † appears beside an entry, the corresponding Note for the ordnance should be consulted.*

The number of counters of this type supplied in one game.

Type The type of ordnance. MTR = mortar. AT = anti-tank. INF = infantry. RCL = recoilless. ART = artillery. AA = anti-aircraft.

CSize Caliber Size (C2.21).

ROF Multiple Rate of Fire (C2.24). (#) = IFE (C2.29)

B# Breakdown Number (C2.28)

Range Range Limit (C2.25). If two numbers appear, the first is the minimum range; the latter the maximum.

M# Manhandling Number (C10.3). If in bold type (circled or black or red on the counter), an increased (un)hooking MP cost applies to the towing vehicle (C10.11-.12).

TSize Target Size To Hit DRM (C2.27).

Dates Dates in use after acceptance by that nation's army.

Special PP = portage points. T = 360° mount (C2.3); NT = non-turreted. QSU = quick setup (C10.23). s# = Smoke Depletion Number (C8.9); WP = white phosphorous (C8.6). H# = HEAT Depletion Number. H5/6[9] = special HEAT ammo; see pertinent German Ordnance Note. AP# = AP Depletion Number (C8.8). A = APCR (C8.1). D = APDS (C8.2). IR = Illuminating Round (C8.7). C = Canister (C8.4). h-d = horse-drawn (i.e., cannot be towed by a motorized vehicle). LF = may use Limbered Fire (C10.24); [...] = changed specifications when LF Gun is limbered. RFNM: see Index. NM: see Index.

Note: the superscript following the Depletion Number indicates the year it applies (EX: $A6^4/7^5$ means the Gun has A6 in 1944 and A7 in 1945.

BPV Basic Point Value. The DYO purchase cost on one piece of this type.

RF Rarity Factor. Indicates the relative rarity of one gun to another at any given time. .9 = extremely common; 1.6 = extremely rare. The Rarity Factor is based on production figures, and is included for DYO purposes only.

bers, and was most commonly encountered in North Africa. There was also an airborne version that was issued later in 1941. This gun may be porteed by an Opel truck.

†RF in North Africa is 1.2.

See also German Ordnance notes A, N, P



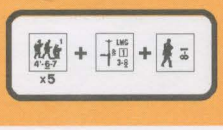
6. 3.7cm PaK 35/36: The standard German AT gun at the beginning of the war. By 1941 over 15,000 had been produced. It first saw combat during the Spanish Civil War in 1936, where it acquired a good reputation. In the 1940 invasion of France however, the PaK 35/36 was unable to penetrate the armor of certain French and British tanks, and the same proved true in Russia in 1941 when confronted by the T-34 or KV. Such increasingly inadequate performance caused the PaK 35/36 to become derisively referred to as the "Army's door-knocker", and by 1942 most AT battalions were re-equipped with the new PaK 38. In the meantime a special HEAT projectile (the Stielgranate 41) was developed for the PaK 35/36, thus prolonging its usefulness even after it was relegated to second-line and reserve units. Prior to 1943, three platoons of four AT guns each made up the AT company of each infantry regiment, with another three companies in the divisional AT battalion. This gun may be porteed by an Opel truck.

See also German Ordnance notes B, N, P

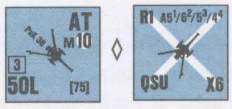


7. 4.2cm lePaK 41: The second German AT gun to incorporate the Gerlich (taperbore) principle used the same carriage as the PaK 35/36. Its nominal caliber was

© 2000 Multi-Man Publishing, LLC

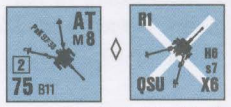


4.03cm but its emergent caliber was 2.94cm. The lePaK 41 was issued in late 1941 to infantry and parachute troops, seeing action in Tunisia, Sicily, Italy, and Russia before its ammunition production was halted.
See also German Ordnance notes A, N



8. 5cm PaK 38: Fortunately for the Germans, the eventual need for an AT gun more potent than the PaK 35/36 had been forseen, and resulted in the PaK 38. Unfortunately for them, however, the armor on many of the tanks this new gun would have to face was thicker than had been anticipated. Thus the PaK 38 could deal satisfactorily with the Matilda, T-34, or KV only when using scarce APCR rounds. In every other way, though, it was an excellent gun, being relatively small and easy to manhandle, and incorporated several innovative design features. It was initially issued primarily to anti-tank battalions, but as the heavier 7.5-7.62cm AT guns became available they displaced the PaK 38s—which in turn were allotted to the regimental AT companies (superseding the obsolete PaK 35/36). When production of APCR was halted in 1942, a temporary exemption was granted for the PaK 38 in order to prolong its usefulness. In 1943 the number of towed AT guns per platoon was lowered from four to three.

†RF is 1.3 prior to 7/41; 1.2, 7-12/41; 1.1, 1-6/42; 1.0, 7/42 on.
See also German Ordnance note N



9. 7.5cm PaK 97/38: A stop-gap conversion necessitated by the need for more AT guns that could effectively engage the T-34 and KV. It consisted of the barrel from the famous French 75 Model 1897, modified and mounted on a PaK 38 carriage. The gun was too powerful for this light carriage however, which caused problems in action. Some 700 were built and rushed to the Eastern front, but as soon as better guns became available the PaK 97/38 was relegated to second-line use. Some were encountered in Normandy, being used as light artillery. Captured French and Polish ammunition was mostly used with the PaK 97/38, but a HEAT round was also specially designed and issued for it.
See also German Ordnance note N



10. 7.5cm PaK 40: The next planned generation of AT guns after the PaK 38. In fact, the PaK 40 was really a scaled-up version of the PaK 38 and looked very similar to it (except for being larger, of course). Design work on the PaK 40 began in 1939, but Operation Barbarossa and the discovery of the T-34 and KV found it still in the pre-production stage. Once its manufacture began however, it did not cease until 1945. In action the PaK 40 was an excellent AT gun—its only drawback being its weight, which made it difficult to manhandle. The PaK 40 eventually became the standard equipment of AT battalions; it was mounted on many TD and was also the basis of the long-barreled 7.5cm gun used in the PzKpfw IV and StuG III. Some were even issued as field guns although in this mode they were hindered by their limited elevation.

†Decrease RF by .1 for each four-month period after 3/42, until 1.1 is reached in 4/43.
See also German Ordnance note N



11. 7.62cm PaK 36r: In the 1941-42 period large numbers of the Soviet 76.2mm obr. 36 field gun were captured by the Germans and quickly put to use by them. A substantial number were adapted to use German-designed ammunition and firing techniques, and in this guise became an excellent (and low cost) addition to the German anti-tank armory. The modified versions were not available until 1942, but the piece Date reflects their earlier use. 124 were received by the Afrika Korps; availability in North Africa begins as of 1942.

†Decrease RF by .1 for each three-month period after 9/41, until 1.2 is reached in 4/42.
See also German Ordnance note N



12. 8.8cm PaK 43: Designed by Krupp, this was the best AT gun to see service in WW2, and overall probably the finest AT gun ever designed. It was easy to conceal, very hard-hitting, able to fire while limbered, traversable through 360°, and accurate at extremely long range. Variants of this excellent gun were mounted in the Tiger II, Nashorn, Jagdpanther, and Ferdinand. The game piece can also be used to represent the FlaK 41 AA/AT gun, which first saw service in Tunisia in 1943 (RF 1.5); however, when used as the FlaK 41 the piece should have B10 in both limbered and unlimbered modes.
See also German Ordnance note C



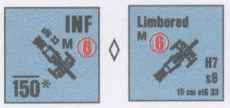
13. 8.8cm PaK 43/41: Demand for the excellent PaK 43 soon outstripped production, leading to an expedient version that consisted of a modified PaK 43 barrel mounted on a carriage assembled from parts of several existing howitzers. The result was big and awkward (it was nicknamed Scheuntor [barndoor]), but in action was just as powerful as the PaK 43. It was encountered by the Allies on all fronts.



14. 12.8cm K81/1: Several different prototypes of a 12.8cm gun configured like the PaK 43 were built, but none ever reached production. In order to utilize the existing barrels, a small number (about 50) were mounted on captured French 155mm and Soviet 152mm carriages and issued as AT/field guns.



15. 7.5cm leIG 18: The standard regimental light support piece of the German infantry. Its design was initiated in 1927 and, once production started, it remained in use throughout the war. A special lightened version was also provided for mountain troops. Six were allocated to the 13th (infantry gun) company of each infantry regiment. One interesting feature of this howitzer was its breech action, which was similar to that of a shotgun; i.e., the barrel was pivoted, and reloading was accomplished by elevating the rear of the barrel to clear the non-moving breech block. The short-barrelled 7.5cm guns mounted in German AFV were not derived from the leIG 18, incidentally. Several other light infantry guns were built and issued during the war (e.g., the IG 37 and IG 42) but do not differ in game terms.
See also German Ordnance notes N, O



16. 15cm sIG 33: The companion piece to the 1eIG 18, two being included in the regimental infantry gun company. It was also the heaviest and largest-caliber infantry gun used during the war. In action its 84 lb. HE shell provided powerful support, but its weight greatly limited its tactical mobility and led to a number of SP variants on fully-tracked chassis.
See also German Ordnance note N



17. 7.5cm LG 40: Recoilless guns were popular with designers, because the absence of the various mechanisms used to absorb a normal gun's recoil meant they were much lighter and were also cheaper to produce. They were not as popular with the users however, who disliked the dangers and tactical limitations inherent in their tremendous backblast. The

© 2000 Multi-Man Publishing, LLC

LG 40 was the first recoilless gun to see combat in the ground role, being initially used during the airborne assault on Crete. Some 450 were built, and were issued to parachute and mountain regiments, and probably also to Jaeger (light infantry). Two RCL were often present in the MG company of each such regiment.
Errata: The counter should have a thin white circle representing a T Gun type.
See also German Ordnance note N



◊


18. 10.5cm LG 42: After production of the 7.5cm LG 40 commenced it was decided that future guns would be of larger caliber. This resulted in the 10.5cm LG 42 (and the similar 10.5cm LG 40), which was used in the same manner as the earlier 7.5cm gun. Recoilless guns could be either dropped by parachute or landed with their SdKfz 2 Kettenkrad towing vehicles in a glider. Production of German recoilless guns ceased in early 1944 since they consumed three to five times the amount of propellant used in conventional artillery—and by this time in the war propellant was in short supply. 10.5cm LG 42 were sometimes used as artillery in divisions of the types mentioned in the preceding Note.

†Sources vary on when this gun became available. Some say late 1941 while others state 1943. The earlier date may represent combat trials; therefore, RF is 1.5 prior to 1943.
Errata: The counter should have a thin white circle representing a T Gun type.
See also German Ordnance note N



◊


19. 7.5cm leFK 16nA: A modernization of the WW1 7.7cm leFK 16. Some were used as first-line artillery pieces in the early campaigns, but in 1941 most were passed to reserve and occupation units. The game piece also represents the later FK 18, as well as many other similar types captured during the early Blitzkrieg years. Volksgrenadier divisions often contained at least one battalion of 7.5cm artillery.



◊


20. 10.5cm leFH 18: The standard German light howitzer throughout WW2. It was a good reliable piece, but was generally heavier and shorter-ranged than its Allied equivalents. Subsequent versions attempted to redress these problems but were never entirely successful. Some leFH 18 were also used by Hungary. German towed artillery batteries usually consisted of four guns each, although in 1944-45 some only had three guns while batteries in Panzer and Panzergrenadier divisions might have six. A version of the leFH 18 was mounted in the Wespe SPA.
See also German Ordnance note N



◊


21. s 10cm K 18: The "long arm" of the divisional artillery. One battery of four guns were often found per artillery regiment; however, as the war progressed they fell from favor, being judged as too big and heavy for their caliber. They were also used as corps artillery.
See also German Ordnance note N



◊


22. 15cm sFH 18: The standard German heavy howitzer throughout WW2. Like most of the German artillery park, it was somewhat large, heavy, and short-ranged for its caliber. Its actual maximum range in hexes was 333—but is given in the Listing as 243, which was its normally allowed maximum range. Increasing the range further (by adding extra propellant charges) required permission from a higher formation, due to the strain such use imposed on the gun: therefore its true maximum range could be utilized only under exceptional circumstances. A later version (the sFH 18M) reduced the wear/stress problem, and another variant (the sFH 18/40) increased the range to 377, but this latter model was much less accurate and only 46 were built. The sFH 18 was used in batteries of four or six guns, and was also mounted on the Hummel SPA. The sFH 18 was also used by Finland and Italy.
See also German Ordnance note N



◊


23. 15cm K 18: A powerful but very heavy gun that took much time to emplace or limber. It was probably used at corps or army level. In reality it could have 360° traverse, but not at the speed necessary for it to qualify as a T gun in the game.
See also German Ordnance note N



◊


24. 17cm K 18: An excellent gun which incorporated many advanced ideas. One such was dual recoil: the barrel recoiled normally, but the platform also recoiled along rails mounted on the carriage. It had 360° capability, but not at the speed necessary for it to qualify as a T gun in the game.
See also German Ordnance note N



◊


25. 2cm FlaK 30: A conventional light AA gun whose design can be traced back to WW1. It had a rather low rate of fire and a tendency for the feed mechanism to jam; nevertheless, it remained in use throughout the war. It was also used as the main armament in the early PzKpfw II and armored cars.
See also German Ordnance notes C, N



◊


26. 2cm FlaK 38: The FlaK 30 was redesigned by Mauser to correct its deficiencies, and as the FlaK 38 it became the standard German light AA gun for the duration of the war (although it never entirely replaced the earlier model). It was also used in a variety of reconnaissance vehicles. Use of the single-barreled 2cm FlaK gun in the AA role began to diminish in early 1944 due to its decreasing ability to deal with the faster and more heavily armored Allied ground attack aircraft. In March 1944 there were 19,692 FlaK 30 and 38 guns in service with the Luftwaffe, while an undetermined number were being used by the Army.
See also German Ordnance notes C, N



◊


27. 2cm FlaKvierling 38: This weapon consisted of four FlaK 38 guns on a common mount, and was originally produced for the German Navy. Its prodigious firepower was feared by Allied pilots, and could be quite deadly against ground targets. In January 1945 there were 3,806 in service with the Luftwaffe, and in the last few months of the war a FlaKvierling with on-carriage radar was used in radar-controlled AA-fire experiments. 2cm FlaK platoons could consist of either three or four guns each.

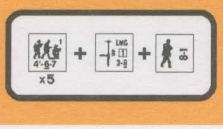
†Make four To Kill DR when using the 20L column of the AP To Kill Table; only one DR (firer's choice) is used.
See also German Ordnance note N



◊


28. 3.7cm FlaK36 o. 37: Another standard light AA gun. In its towed version it does not seem to have often been included in the Army's divisional establishments. Apparently most were used in FlaK divisions and independent FlaK regiments and battalions. A 3.7cm FlaK platoon consisted of three guns, with three platoons forming a battery. The main difference between the FlaK 36 and 37 was in the type of sights used.
See also German Ordnance notes B, N

© 2000 Multi-Man Publishing, LLC





29. 3.7cm FlaK 43: This AA gun was primarily a new design rather than an improved version of existing 3.7cm weapons. It featured a substantially increased rate of fire, but was also much bulkier than the older guns. Relatively few were made; there were 1032 in service with the Luftwaffe in February 1945.



30. 8.8cm FlaK 18 o. 36: The "88", probably the most famous gun of WW2, was designed by a team of Krupp engineers working clandestinely in Sweden. It was an excellent design and quickly became the mainstay of the Luftwaffe heavy AA defenses. The differences between the Flak 18 and 36 were minor; many of their parts were interchangeable. During the Spanish Civil War its usefulness against ground targets was noted, and appropriate ammunition was developed for this role. The 88's lasting fame (or notoriety) came with its use in North Africa, where it easily destroyed the previously invulnerable Matildas at over 2000m. It came to be so feared in the desert that British crewmen were said to sometimes abandon their tank even if an 88's first shot missed them—for they knew it rarely missed with a second. Nor did its reputation ever diminish. One reason for this was that at the end of the war an 88 could still frontally penetrate any U.S. or British tank, save perhaps the Sherman Jumbo. Another reason was that so many 88s were built; for instance, in August 1944 the Luftwaffe alone had 10,704 in service—and this number does not include those used in Army FlaK battalions. These facts alone make it easy to understand why they made such a powerful impression on those who had to face them. An 88 platoon consisted of four guns, usually towed by SdKfz 7.
See also German Ordnance notes C, N

GERMAN MULTI-APPLICABLE ORDNANCE NOTES

A. Due to the design of its armor piercing projectile, this gun uses the APCR To Kill Table and Range modifiers for its To Kill DR vs AFV, unless using HE. In addition, it always uses the Basic TH# Modification (C4.3) for its To Hit DR—even if it fires HE—and is not subject to APCR Depletion Numbers.

B. This special HEAT round was known as the Stielgranate 41. It consisted of an egg-shaped hollow-charge warhead, to the rear of which was attached a rod inside a finned and perforated sleeve. The round was muzzle loaded; i.e., the loader inserted the rod into the muzzle end of the gun-barrel (with the finned sleeve sliding down over the outside of the barrel), and a special blank cartridge was loaded into the breech to fire it. The fin-stabilized projectile had a muzzle velocity of 110 m/sec (361 ft/sec) and a maximum range of about 364m (400 yds).

†H#[9] has a Basic To Hit number of 11. Each hex of range decreases this number by one. Its maximum range is 9 hexes. All Firer/Target-based To Hit DRM apply normally. It may only be fired at a vehicle, or at those target types allowed to HEAT (C8.31). The gun's ROF is lowered by one if it successfully fires the Stielgr 41 (i.e., it can continue to fire in that phase if its To Hit colored DR for that shot was a 1 or 2 rather than 1-3).

C. When using Limbered Fire the Barrel Length modification (C4.1) on the counter's LF side is used for To Hit purposes; the Basic To Kill number, however, is still determined using the Caliber Size and Length printed on the unlimbered side.

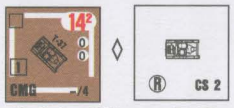
N. This Gun was used in North Africa at sometime from 3/41 to 5/43 (within the limits of its own given Date). If the superscript "T" appears, its use in North Africa was limited to Tunisia, 11/42-5/43 (again, within the limits of its own given Date).

P. This Gun may be carried en portee (C10.5) by an Opel truck and may use Portee Fire (C10.54) in a scenario set between 1941 and 8/43 inclusive.
O. This Weapon may be Animal-Packed (G10).

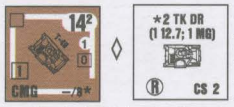
RUSSIAN VEHICLE NOTES

By 1941 the Soviet Union had a vast armored force of almost 30,000 AFV—more than the rest of the world combined. An obsession with annual production figures, however, upstaged the more mundane concern for the manufacture of spare parts. Consequently, when the Germans invaded, only about 7,000 of the 24,000 existing Soviet tanks could be considered completely battle-worthy. This in turn caused a large part of Soviet tank losses in the first months of Operation Barbarossa to be caused by mechanical breakdown. Several other important factors contributing to the poor showing of early Soviet armor were a general scarcity of radios, the inexperience of crews and commanders, and obsolete two-man turrets—all of which made Soviet tanks difficult to control as formations, and individually unwieldy in action. They were relatively "blind" and "dumb" in combat—often blundering about oblivious to beneficial terrain and enemy positions; a situation which the Germans (and Finns) were quick to exploit. The result of all this was that by December 1941 the Soviets had lost all but about 4,500 tanks (of which some 2,100 were keeping watch on the Japanese) and their armored force was at its nadir.

In 1942, with better tanks beginning to predominate and with better training and tactics resulting from the experiences of 1941, the situation slowly improved and the gulf in tactical expertise between the Soviets and the Germans began to gradually diminish. Moreover, the Soviet philosophy of quantity before quality allowed them to outproduce the Germans, whose AFV were technically superior but also more expensive and time-consuming to build. Indeed, even with the loss of much of their natural resources and the forced relocation of many production facilities in 1941, the Soviets during the course of WW2 built some 102,000 AFV (of which about 71,000 were the superior T-34/KV/IS tanks) and could use sheer weight of numbers (as could the Western Allies) to help overpower the outnumbered invaders.
Any counter errata mentioned in the Russian Vehicle and Ordnance Notes applies only to the 1st edition of BEYOND VALOR/RED BARRICADES.

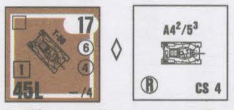


1. T-37: A slightly altered version of the British Vickers A4E11. Used in recon units of infantry, cavalry, and mechanized formations. The game piece also represents the slightly different T-38 model. About 2,500 of all types were built.
See also Russian Vehicle Notes H, M



2. T-40: Successor to the T-37/T-38 as a recon vehicle, and also pressed into service as an infantry support AFV when heavier tanks became scarce toward the end of 1941. Only about 220 were built before production was halted in favor of the superior T-60.

†Make one To Kill DR on both the 12.7 and MG columns when using the AP To Kill Table; only one DR (firer's choice) is used.
See also Russian Vehicle Note H



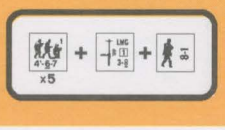
3. T-50: This Maly Klim was an infantry support tank somewhat resembling a midget T-34, and was intended as a replacement for the T-26 series. Only 63 were built, as they were found to be very cost-ineffective compared to the T-34. All were used in a single brigade on the Finnish front.

© 2000 Multi-Man Publishing, LLC

RUSSIAN VEHICLE LISTING

#	Name	®	WGT	Type	BPV	RF	Dates	Size	AF	TA	OT	CS	MP	GP	GT	MA	ROF	B#	IF	BMG	CMG	AAMG	S A	Am	s#	sD	PP/T#	Notes
6	T-37	®	3.5	aTt	25	1.2	34-41	+2†	0			2	**14**[2]	L	1MT	CMG	1				4							1,H†,M
6	T-40	®	6	aTt	32	1.5	6-12/41	+1†	1/0	+SR		2	**14**[2]	L	1MT	CMG	1				8†							2†,H†
4	T-50	®	14	Tt	38	1.6	4-42/43	+1	6/4	-FSR		4	**17**	L	RST	T45L	1				4			A4[2]				3
6	T-60 M40	®	6	Tt	28	1.0	8/41-43	+1	3/2	-FSR		2	**15**	L	1MT	T20LL	1 (4)				2							4
4	T-60 M42	®†	6.5	Tt	31	1.3	7/42-43	+1	6/3	-FSR		2	**15**	L	1MT	T20LL	1 (4)				2							4,C†
6	T-70	®†	9	Tt	32	1.0	4-42/45	+1	6/4			2	**14**	L	1MT	T45L					2			A4[2]				5,C†
6	T-26 M33	®	9.5	LT	28	.9-1.4†	33-41	0	1	+F		3	**12**		RST	T45L	1	11			Opt4[OptR2]	Opt2						6,D,I†,M
6	T-26 M37/39	®	10.5	LT	30	1.2	39-42	0	3/1	+SR		3	**11**		RST	T45L	1	11			4[OptR2]	Opt2						6,D,M
3	OT-133	®	9.5	LTv	47	1.5	39-41	0	3/1	+SR		3	**12**		RST	**TF24**		**X11**†			4[R2]							7†,M
6	BT-5 M34	®	11.5	LT	33	1.1-1.5†	33-41	0	2/1	-F		3	**22**	L	RST	T45L	1	11			4							8†,M
6	BT-7 M37	®	14	LT	34	1.0-1.5†	39-41	0	2/1	-F/+SR		3	**23**		RST	T45L	1	11			4[OptR2]	Opt2						9,D,I†,M
3	BT-7A		14.5	LT	37	1.4	38-41	0	2/1	-F		3	**21**		RST	T76*		11			2[R2]	2		AP7	9			10,M
6	T-28 M34	®	28	MT	40	1.4	34-41	-1	3/2	+SR		5	**12**		ST	T76*				2x2†	2[R2]	2			8			11†,M
6	T-28E M40	®	32	MT	43	1.4	2/40-41	-1	8/4	-F/+SR		6	**10**		ST	T76*				2x2†	2[R2]	2			8			12†,M
6	T-34 M40	®	26.5	MT	51	1.2	41	0	11/6	-F		5	**17**	L	RST	T76				2	4							13,M
6	T-34 M41	®†	28.5	MT	55	1.5-.9†	6/41-44	0	11/6	-F		5	**17**	L	RST	T76L				2	4			A4[2]				14†,C†,M
3	OT-34	®†	29.5	MTv	62	1.4	42-45	0	11/6	-F		4	**17**		RST	T76L		**X10**†	•		4		**BF32**	A2[2];AP7				15†,C†,M
6	T-34 M43		31	MT	59	1.4-.9†	10/42-45	0	11/6			5	16		RST	T76L	1			2	4			A4[2]				16†
6	T-43	®†	32	MT	58	1.3	42-44	0	14/6	-F/+SR		5	**15**		RST	T76L				2	4			A4[2]				17,C†,M
6	T-34/85		32	MT	76	1.5-1.1†	4/44-45	0	11/6	+SR		6	16		T	T85L	1			2	4			A5[4]		6†		18†,J†
6	M4/76(a)		33.5	MT	74	1.5-1.4†	9/44-45	-1	11/4	-F/+SR		6	14		T	T76L	1			2	4	4		A3[4]	8	sM8		19†
3	T-44		32	MT	75	1.6	4-5/45	+1	18/8	-F		**5**	**16**		T	T85L				1†	4			A6[5]				20,B†,M
3	T-35	®	46	HT	48	1.6	34-41	-2	3/2	-F		8	**10**	L	ST	T76*				2x2†	2	2	45Lx2†		9			21†,M
6	KV-1 M39/40		43	HT	51	1.3†	41†	-1	8	+F		6	**12**	L	RST	T76				2	4[R2]							22†,M
6	KV-1E		45	HT	52	1.3	6/41-42	-1	11/8	+SR		6	**11**		RST	T76				2	4[R2]	Opt2						23,D,M
6	KV-1 M41		45	HT	55	1.2	7/41-43	-1	11/8	+SR		6	**11**		RST	T76L				2	4[R2]	Opt2		A4[2]				23,D,M
6	KV-1 M42		47	HT	56	1.4	6/42-43	-1	11	+F		6	**10**		RST	T76L				2	4[R2]	Opt2		A4[2]				23,D,M
6	KV-2		52	HT	60	1.3	41†	-2	8	+F		7	**9**		NT†	T152*			•	2	4[R2]			AP9				24†,M
3	KV-8		45	HTv	79	1.5	42-43	-1	11/8	+SR		6	**11**		ST	T45L		**X10**†		2	[R2]	Opt2	**TF32**	A4[2];AP7				15†,D,M
6	KV-1S		42.5	HT	61	1.2-1.6†	11/42-45	0	8/6	+SR		6	14	L	T	T76L	1			2	4[R2]			A4[2]				25†
5	KV-85		46	HT	72	1.5	10/43-3/44	-1	8/6	+FSR		5	12		T	T85L	1			1†	4[R2]			A4[3]5[4]				26,B†
6	IS-2		45	HT	83	1.3	3/44-45	0	14/11	+F		6	13		ST	T122L		*11*	•	1†	4[R2]							27,B†
6	IS-2m		46	HT	87	1.2	7/44-45	0	26/11	-F		6	13		ST	T122L		*11*	•	1†	4[R2]	Opt4†						28,B†,G†
3	IS-3		46	HT	90	1.6	4-5/45	0	26/11	+SR		6	13		ST	T122L		*11*	•		4	Opt4†				6†		29,G†,J†
6	SU-76M		10.5	AG	46	1.5-1.0†	2/43-45	+1	4/1	-F	•	4	16	L	NT	T76L	2							A5[3]				30†
4	SU-76i (g)		22.5	AG	47	1.5	9/43-44	+1	6/3	+FSR		5	13		NT	B76L	1							A5[3]				31,K
6	SU-122		31	AG	59	1.3	2/43-45	0	11/6	-F		5	16	L	NT	B122			•					H9	8			32
6	SU-152		45.5	AG	61	1.6-1.4†	7/43-45	-1	8/6	+FSR		6	13		NT	B152		*10*	•									33†
6	ISU-122		45.5	AG	68	1.2	3/44-45	-1	14/11	-F		6	13		NT	B122L		*11*	•			Opt4†			8			34,G†
6	ISU-152		46	AG	63	1.2	3/44-45	-1	14/11	-F		6	13		NT	B152		*10*	•			Opt4†						34,G†
6	SU-85		29	TD	54	1.3	9/43-45	0	11/6			5	16		NT	B85L	1							A5[3];HE7	7			35
6	SU-100		31.5	TD	59	1.4	11/44-45	0	11/6			5	15		NT	B100L		*11*						HE7				36
4	SU-57(a)		9	TDht	39	1.4	7/43-45	+1	0	+F	•	4	**19**		NT	B57LL	3							A5[3];HE7				37,K
5	BA-20	®	3	AC	20	1.3	36-41	+1	0			3	21[t]	H	1MT	CMG	1				4							38
5	BA-6	®	5	AC	31	1.2	35-43	0	1/0	+FSR		4	19[t]		RST	T45L	1	11		2	4			A4[2]				39
4	BA-64B		2.5	AC	25	1.2	43-45	+1	1/0	+SR	•	2	30[t]		1MT†	CMG	1				4	†						40†,A†
3	ZSU-37		10.5	SPAA	36	1.5	44-45	+1	4/1	-F	•	4	16	L	NT†	37L	2 (8)					†						41†,A†
4	SU-12		6	SPAtr	31	1.3	33-42	0	★			4	23[t]		T†	T76*	1							AP7	8			42,F†
3	GAZ-4M-AA		3	AAtr	40	1.2	31-42	0	★			4	25[t]			AAMG	2					16†						43†,A†

© 2000 Multi-Man Publishing, LLC



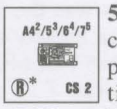
H

★ Vehicle 4

#	Name	Ⓡ	WGT	Type	BPV	RF	Dates	Size	AF	TA	OT	CS	MP	GP	GT	MA	ROF	B#	IF	BMG	CMG	AAMG	S A	Am	s#	sD	PP/T#	Notes
2	ZIS-42-AA		5	AAtr	34	1.5	41	0	★			4	21[1]	H	T†	T25LL	3 (6)	11				†						44,A†,F†
3	IAG-10-AA		11	AAtr	48	1.4	40-42	-1	★			4	15[3]	H	T†	T76LL	1					†		AP7				45,A†,F†
4	GAZ-67B		1.5	tr	13	1.3	43-45	+2	★			2	33[1]	L†													9 PP/T10	46,L†
6	GAZ-MM		3	tr	15	1.3	38-45	+1	★			6	25[1]														21 PP/T8	47
6	ZIS-5		6	tr	17	1.4	33-45	0	★			7	21[1]	H													29 PP/T4	47
6	LAG-6		10	tr	19	1.5	36-45	-1	★			7	15[3]	H													33 PP/T4	47




4. T-60 M40 & M42: The T-60 was designed as a recon tank, but was nonetheless often pressed into service in support of infantry attacks since, due to attrition, by late 1941 recon tanks comprised roughly 50% of a tank brigade's strength. About 6,300 T-60 types were built. Beginning in 1943 many had their turrets removed and were used as gun tractors or SP rocket launchers. By the end of 1941, Soviet light tank platoons consisted of three vehicles each; prior to this each contained five tanks. M stands for model year in cases where significant variations existed.
See also Russian Vehicle Note C

5. T-70: Another attempt to create the right combination of firepower, mobility, and protection in a light tank. However, by this time it was seen that the T-34 could do anything the T-70 could, and a lot more that the T-70 couldn't. So with ever increasing numbers of T-34 tanks obviating the need for light tanks, the T-70 was withdrawn from tank brigades in early 1944 (although it remained in use with other formations and Soviet allied forces). More than 8,200 T-70 were built.
See also Russian Vehicle Note C




6. T-26 M33 & T-26S M37/39: The T-26 tanks were originally developed from the British Vickers 6-ton models, and for the most part equipped the tank battalions (22 T-26 and 16 recon tanks) of rifle divisions. Prior to the German invasion of Russia they were used in the Spanish Civil War (9/36-38), Manchuria (1939), and the Russo-Finnish War (1939-40). 88 were also sold to China around 1937. In 1941, T-26 and BT tanks formed 75% of the Soviet tank force. Over 12,000 T-26 were built, of which about 5,500 were Model 1933. The Models 1937 and 1939 had a more sloping turret and thicker armor. Optional CMG RF is 1.1.
See also Russian Vehicle Notes D, I, M




7. OT-133: These were used in special battalions which contained 45 FT tanks each, plus a few T-26 and armored cars. The game piece also represents the earlier OT-130 model.

†X# - applies only to FT.
See also Russian Vehicle Note M



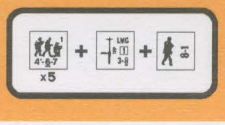

8. BT-5 M34: The BT (Bistrokhodny Tank: Fast Tank) were the basic AFV of independent tank brigades, and of mechanized and cavalry divisions. They were intended for use in the long-range exploitation role. Developed from the M1931 design of the American J.W. Christie, BT could be driven on their wheels, sans tracks—although this theoretical advantage was rarely used. BT were well-liked by their crews, but their thin armor made them vulnerable to even ATR. Prior to the German invasion of Russia, BT were used in the Spanish Civil War (about 50 were sent, 1937-1938), Manchuria (1938-39), and the Russo-Finnish War (1939-40). Almost 5,000 BT were built, up to and including the BT-5 series.

†Increase 1941 RF by .1 for each month after 7/41.
See also Russian Vehicle Note M




9. BT-7 M37: This series was an evolutionary modernization of the BT-5 with redesigned front armor, and with a new turret, more machineguns, and a new en-

© 2000 Multi-Man Publishing, LLC



gine/drive train (without the wheels-only capability) being introduced in stages from 1935; the version equipped with both optional MGs is actually the BT-7M (aka BT-8). Unfortunately, such improvements did little to enhance the survivability of an obsolete design. Over 2,000 BT-7 types were built. The great significance of the BT design is that, via several experimental models, it was the direct predecessor of the T-34.
See also Russian Vehicle Notes D, I, M




10. BT-7A: This artillery tank was intended to provide close support for the BT platoon. It was usually radio-equipped.
See also Russian Vehicle Note M



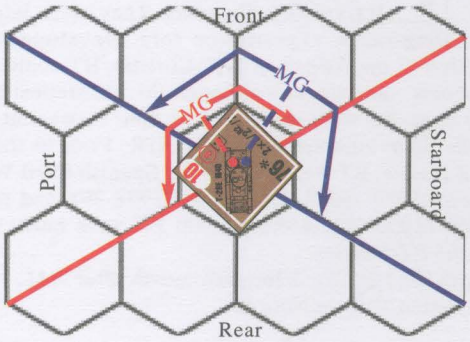

11. T-28 M34: This was the first Russian medium tank. It was loosely based on the British A6E1 and had two MG-armed turrets flanking the driver. T-28 were used in Manchuria against the Japanese and in the Russo-Finnish War of 1939-40, as well as against the Germans. After 1938, most T-28 were consolidated into three heavy tank brigades, with each ideally containing 136 T-28, 47 BT, and 25 armored cars. About 600 T-28 types were built.

†BMG factor (2×2) is actually two 2 FP BMG: one in a starboard fore sub-turret and one in a port fore sub-turret. The starboard MG sub-turret may fire through the T-28's front Target Facing and starboard side Target Facing, and the port MG sub-turret may fire through the front Target Facing and port side Target Facing. No CA change DRM apply to such fire through a side Target Facing unless the AFV changes its VCA. See the diagram for Vehicle Note 12.
See also Russian Vehicle Note M




12. T-28E M40: The original T-28 were found to be easily penetrated by Finnish AT guns and so were strengthened by adding additional plates. These uparmored versions successfully assisted in breaking through the Finnish Mannerheim Line in early 1940 but did not fare well against the Germans in 1941. T-28 production was ended in 1940 in view of the much superior T-34 design.

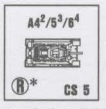
†BMG factor (2×2) is actually two 2 FP BMG: one in a starboard fore sub-turret and one in a port fore sub-turret. The starboard MG sub-turret may fire through the T-28's front Target Facing and starboard side Target Facing, and the port MG sub-turret may fire through the front Target Facing and port side Target Facing. No CA change DRM apply to such fire through a side Target Facing unless the AFV changes its VCA. See the diagram below.
See also Russian Vehicle Note M






13. T-34 M40: At the time of its introduction, the T-34 was the most revolutionary AFV in the world. Its combination of medium velocity 76mm gun, well-sloped armor, high top speed, and excellent mobility across soft ground, placed it a generation ahead of all other existing tanks. This is not to say, however, that it had no faults. It was extremely cramped and tiring to operate, its two-man turret reduced its rate of fire and overall fighting efficiency, and the early models were prone to breakdowns. Despite these problems, the T-34 was an excellent design overall and its appearance came as a rude shock to the Germans, who had until then been smug in the belief of their own technical superiority. 967 T-34 were with the western Military Districts on June 22, 1941.

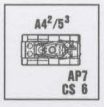
In action, the T-34 proved to be almost invulnerable to the standard German tank and anti-tank guns. Initially though, the Soviet command dispersed them widely amongst the armored units and the vast majority of their crews had only a few hours of training, which often enabled the experienced German panzer crews to fully utilize their superior tactics to negate the T-34's superiority. On the other hand, the German infantry with their relatively immobile 37mm AT guns came to greatly fear the T-34, often being able to stop it only by attaching a grenade bundle or mine to its rear deck—not exactly a task they relished. The Model 1940 was the original production type; about 1,000 were built.
See also Russian Vehicle Note M

14. T-34 M41: This model was initially reserved for use by platoon and company commanders, but clamors from the front for its more effective gun led to its superseding the Model 1940 in production. The game piece also represents the Model 1942, which incorporated minor improvements. Soviet medium tank platoons generally consisted of three tanks apiece, with a company containing ten tanks.

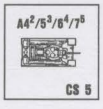
†Decrease RF by .1 for each two-month period after 7/41 until .9 is reached in 6/42.
See also Russian Vehicle Notes C, M



15. OT-34 & KV-8: Flamethrower tanks were generally organized into independent battalions attached to tank corps, with each battalion consisting of 10 KV-8 and 11 OT-34. Later these battalions had 20 OT-34 and 10 T-34.

†X# applies to use of the FT—not the MA.
See also Russian Vehicle Notes C, M

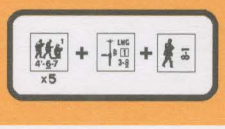
16. T-34 M43: The addition of a roomier hexagonal-shaped turret and significant improvements in automotive reliability characterized the T-34 Model 1943, which was the most numerous version of the T-34/76 series. When production ceased in 1944, more than 35,000 T-34/76 had been built.

†Decrease RF by .1 for each two-month period after 12/42 until .9 is reached in 9/43.



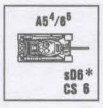

17. T-43: This was actually the prototype of an uparmored T-34 which never reached production, but for ease of identification its name is used here to identify those versions of the standard T-34 which were locally uparmored by welding additional plates to the hull front and turret. Most of these variants were produced in Leningrad and were therefore more commonly used in the areas around the Baltic Sea.
See also Russian Vehicle Notes C, M

© 2000 Multi-Man Publishing, LLC



H

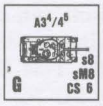
★ **Vehicle 24**

18. T-34/85: By mid 1943 the Soviet Union, somewhat like the U.S., found its tanks to be under-gunned when confronting the new generation of German Panthers and Tigers. The resolution of this problem was the T-34/85, with a more powerful gun mounted in a new three-man turret. It first saw combat with the 1st Guards Tank Army. About 29,430 were built during WWII.

†Decrease RF by .1 for each month after 4/44 until 1.1 is reached in 8/44.

See also Russian Vehicle Note J

19. M4/76(a): The Russians used more Shermans than any other Lend-Lease tank during the last two years of the war. Shipments of the M4A2/76(w) (which was the only 76mm version given to the Soviets) began in May 1944, and ultimately 2,095 were sent. Some tank and mechanized corps were entirely equipped with Shermans; the 1st Guards Mechanized Corps in 1945 was one such. The M4/76 may have a functioning gyrostabilizer (D11.1), and is also equipped with a 2in. smoke mortar (sM8; D13). The "(a)" in the piece name stands for American, for ESB purposes. Note that the M4/76 uses black To Hit numbers and U.S. AP/APCR TK#s.

†RF is 1.5 in 1944.




20. T-44: This was designed to replace the T-34/85, but the initial models failed to live up to expectations. About 200 were built by VE Day. Some saw limited action in 1945. The T-44 was the direct predecessor of the long-lived T-54/T-55 series.

See also Russian Vehicle Notes B, M

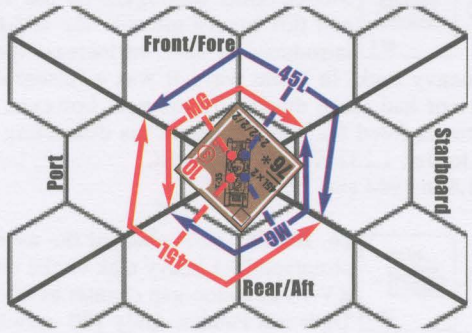



21. T-35: This was a "land-battleship" based on the design of the British Independent tank. While quite a dreadnought on paper, operationally its multitude of weapons could not be effectively directed by the overburdened tank commander; moreover, it was mechanically very unreliable. A total of about 60 were built. Some were used in Finland (1939), and most of those still running in 1940 were amalgamated into the elite 34th Tank Division, only to be subsequently lost in the frontier battles of 6/41—most to mechanical failures. A few participated in the defense of Moscow during late 1941. The high CS# is due more to the size of its crew (10 men) then to any intrinsic strength of the vehicle.

†The T-35 has four sub-turrets: two with a 45L gun (one each in the port aft sub-turret and the starboard fore sub-turret); and two with a 2 FP MG (one each in the port fore sub-turret and the starboard aft sub-turret). Each port sub-turret may fire at targets within the T-35's port side Target Facing, and each starboard sub-turret may do likewise within the T-35's starboard side Target Facing. Each fore sub-turret may fire at targets within the T-35's front Target Facing, and each aft sub-turret may do likewise within the T-35's rear Target Facing. Thus each sub-turret has a "CA" of either "front and one side" or "rear and one side" T-35 Target Facing, as per the diagram at the top of the next colum. All ST penalties apply to the 76* gun.

Each 45L gun is always subject to the +1 BU DRM but does not suffer any TCA change DRM (although it must pay NT CA DRM if the T-35 changes its VCA); moreover, it may not use a multiple ROF nor may it use Intensive Fire.

See also Russian Vehicle Note M



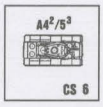



22. KV-1 M39/40: The KV (Klementi Voroshilov) caused great consternation amongst the Germans when they first encountered it. Barring a lucky track hit, it was almost totally invulnerable to all German guns save the 88s and large caliber artillery pieces. Its chief drawbacks were a poor turret layout and the fact that it was both extremely tiring to drive and unwieldy in action (the KV's turret had a three-man crew, but in game terms it suffers RST penalties because its turret configuration precluded the commander's being CE while the MA was being used). 508 KV were in service on June 22. 3,015 KV-1 types were built. Most Soviet independent tank battalions and brigades in the 1941-42 period contained a mixture of KV, T-34, and recon tanks. Soviet heavy tank platoons consisted of only two tanks each, with five tanks per company.

†The KVs' first major combat came with the German invasion, although a few KV-1 Model 1939 prototypes saw action near Summa, Finland, as early as 12/39 (RF 1.6 for pre-1941 use).

See also Russian Vehicle Note M



23. KV-lE, KV-1 M41, & KV-1 M42: Uparmoring of the KV (Klim) was started even before Operation Barbarossa, based on faulty intelligence reports that the Germans were massively upgunning their tanks. Moreover, as new German weapons and ammunition were encountered, the Soviets introduced further modifications and retrofitted many of the surviving older KV with various types of applique armor. Each successive addition to their weight engendered a further loss of mobility however—and although the front lines were calling for faster tanks with thicker armor, the critical shortage of heavy tanks meant that the current models had to remain in production and could only be improved through expediencies.

Due to their hampering of operations when used with the faster T-34, from 7/42 KV were placed in separate independent heavy tank regiments of 21 KV each.

See also Russian Vehicle Notes D, M




24. KV-2: The Dreadnought was designed as a "bunker-buster", the need for which was discovered during the war against Finland in 1939. While it was an effective weapon versus static emplacements, its lumbering bulk was the complete opposite of what was needed during the mobile defensive battles of 1941, and it was quickly phased out of production. 334 were built.

†One prototype saw action in Finland in February 1940, around Summa.

†The KV-2's massive turret was difficult to traverse—especially if the tank was not on level ground. For this reason it is treated as a NT AFV *[EXC: it may change its TCA but pays NT traverse DRM when doing so].*

See also Russian Vehicle Note M

© 2000 Multi-Man Publishing, LLC





25. KV-1S: By mid 1942 the number of Soviet tanks was again on the increase, and this luxury allowed the KV-1S to be introduced in order to increase the mobility of the heavy tank. In some ways it was a retrograde step, since its armor had to be drastically thinned; however, its new three-man turret freed the commander of his distracting need to also be the loader. 1,232 KV-1S were built.

†RF is 1.4 in 1944 and 1.6 in 1945.



26. KV-85: This mounted the turret of the prototype IS-1 heavy tank on the hull of the KV-1S as a stop-gap counter to the German Tiger and Panther. Only 130 were built and these were quickly consumed in the winter battles of 1943-44.
See also Russian Vehicle Note B



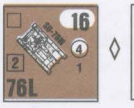
27. IS-2: The IS (Iosef Stalin) heavy tank incorporated a re-designed KV hull and chassis combined with a new three-man turret. The first prototypes were built with an 85mm gun and then with a new 100mm gun, but the production versions had a 122mm gun chosen for its better HE capability and ease of production. This model is generally known as the JS-I in the West. IS tanks were initially used in independent heavy tank regiments, each of which contained 21 (5 per company; 2 per platoon).
See also Russian Vehicle Note B



28. IS-2m: The main distinguishing characteristic of the IS-2m was its uniformly sloped upper hull front. Besides its above-mentioned use, by 1945 the IS also equipped the new independent heavy tank brigades (each containing 65 IS types). 3,854 IS-2 types were built between late 1943 and mid 1945. The IS-2m is generally known as the JS-2 in the West. The main tactical drawbacks of the IS series were their slow rate of fire and their stowage of only 28 rounds.
Errata: The counter with identity letter "F" should have a white dot behind its BMG FP.
See also Russian Vehicle Notes B, G



29. IS-3: The prototype IS-3 (Shchuka) was built in November 1944. Its low, round, and extremely sloped turret was a revolutionary design, and its pointed hull front gave rise to its being nicknamed the "Pike". The IS-3 was first issued at the time of the battle of Berlin. It is not definitely known if any saw combat; the Soviets claim they did. When first publicly displayed in September 1945 they caused great concern to Western observers and significantly influenced post-war Western designs.
See also Russian Vehicle Notes G, J

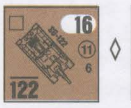


30. SU-76M: The Suka was designed as a combination assault gun/tank destroyer on a much modified T-70 hull and chassis. The increasing effectiveness of German armor and guns soon relegated it to the infantry support role, however, where it saw widespread use. It was initially used in conjunction with the SU-122 on the Volkhov Front in the attempt to relieve Leningrad. To ease logistics, in mid 1943 the SU-76 were placed in their own light SPA regiments of 21 vehicles each (with each battery comprised of four vehicles). 12,671 SU-76 and ZSU-37 AA vehicles were built between 1942 and mid 1945. The SU-76 was not well-liked by its crews, as evidenced by its nickname, "Bitch".

†RF is 1.5 prior to 9/43.



31. SU-76i(g): This used the hull and chassis of a captured PzKpfw III or StuG III, on which was fabricated a sloping box superstructure mounting a 76mm gun. 190 were built in 1943. They were generally used like the SU-76M. The sole surviving example (converted from a PzKpfw III J) was found in the Ukraine in 1972, lying at the bottom of the Sluch River where it had fallen through thin ice in January 1944 during the 143rd Rifle Division's attack on Sarny. The "(g)" in the piece name stands for "German", for ESB purposes.
See also Russian Vehicle Note K

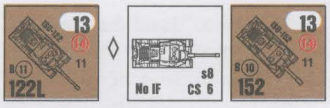


32. SU-122: An assault gun consisting of an M-30S field howitzer mounted on the hull and chassis of the T-34. First used in conjunction with the SU-76; in mid 1943 the SU-122 were placed in their own medium SPA regiments of 16 (later 21) such vehicles each (with each battery comprised of four vehicles). 1,148 were built between 1942-44.

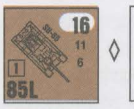


33. SU-152: Designed to combat the German Tiger at long range, the SU-152 was an adaptation of the hull and chassis of the KV-1S. It first entered combat in the Kursk battles, and dealt so successfully with Tigers, Panthers, and Elefants that it was dubbed "Zvierboy"—variously translated as Animal Hunter or Conquering Beast. Its greatest tactical drawback was in carrying only twenty rounds of ammunition. 704 SU-152 were built and used in heavy SPA regiments of 21 vehicles each. A battery of heavy SU/ISU AFV consisted of three vehicles each.

†RF is 1.6 for 7-9/43, and is 1.4 thereafter.



34. ISU-122 & ISU-152: These were continuations of the SU-152 concept, but using the IS chassis. In action, the greater armor piercing capability and longer range of the 122mm gun were complemented by the 152mm's better HE performance. They were used almost exclusively for direct fire, in the second wave of tank attacks. Their greatest liability was their ammunition capacity, which was only 30 and 20 rounds respectively. The ISU-122 and 152 were used in heavy SPA regiments (as per the SU-152), and after 1944 also in Guards heavy SPA brigades (as per the SU-100). From latter 1943 to mid 1945 a total of 4,075 of both types were built.
See also Russian Vehicle Note G

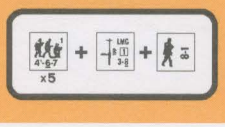


35. SU-85: Designed as a countermeasure to the latest German AFVs, the SU-85 was essentially an SU-122 upgunned by mounting a derivative of the 85mm AA gun. Used in tank destroyer battalions of 16 vehicles each (21 from 1944), it first saw combat during the forcing of the Dnepr River. With the advent of the T-34/85, the gun of the SU-85 became redundant and it was eventually superseded in production by the SU-100. 2,050 SU-85 were built.

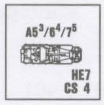


36. SU-100: This was essentially an upgunned SU-85, using an adapted 100mm naval gun. It was used in Tank Destroyer Battalions of 21 vehicles each, and in Guards Heavy SPA Brigades with 65 SU-100s and 3 SU-76s. 1,675 SU-100 were built from late 1944 to mid 1945. An SU-85 or SU-100 platoon consisted of two such vehicles, with five vehicles per battery.

© 2000 Multi-Man Publishing, LLC





◊


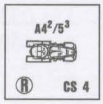
37. SU-57(a): The U.S. T48 GMC half-track. 650 were Lend-Leased to the Soviet Union, where they were re-armed with the more powerful Soviet 57mm AT gun and used in special brigades of 60 SU-57 each. The "(a)" in the piece name stands for "American", for ESB purposes.
See also Russian Vehicle Note K



◊


38. BA-20: This was a modernization of the older BA-27 and BA-27M armored cars. It consisted of an armored body topped by a MG turret, all on a modified 4×2 Ford Model A chassis with an updated Model A engine. It was used for security and reconnaissance missions. BA = Bronieavtomobil (armored automobile). Approximately 4,800 armored cars (of all types) were in Soviet service in June 1941.



◊


39. BA-6: The BA-6 (aka BA-10 in the West) utilized the 6×4 chassis of the GAZ-AAA truck, which was itself a modification of the 1930 Ford Model AA truck. It mounted the turret of the T-26 Model 1933 tank. About 100 Soviet 6×4 armored cars fought in Spain (1936-38); these types also saw combat as standard recon vehicles in all subsequent Soviet military actions through 1943. The game piece also represents the later (1938) BA-10 (aka BA-32), which carried the turret of an experimental light tank but is equivalent in game terms.



◊


40. BA-64B: This was a light armored car based on the GAZ 4×4 automobile. It was used as a recon vehicle by commanders and staff officers and as a liaison vehicle in recon units. One source states that about 3,500 were built during the war.

†All 1MT restrictions apply normally *[EXC: the crew must be CE to fire the CMG]*.

Errata: The Russian BA-64B AC should have "BU FP NA" on the counter.
See also Russian Vehicle Note A



◊


41. ZSU-37: A curious attempt at AA defense based on the SU-76M. Several hundred were built, but they were withdrawn from service at the war's end, due to their excessively slow turret traverse.

†The ZSU-37 is treated as a NT AFV *[EXC: it may change its TCA but pays NT traverse DRM when doing so]*.
See also Russian Vehicle Note A



◊


42. SU-12: The first standardized Soviet SP gun. Used in cavalry and mechanized units, with one battery of six vehicles supporting each cavalry motorized infantry regiment.
See also Russian Vehicle Note F



◊


43. GAZ-4M-AA: Standard Soviet AA vehicle of the 1930s. AAMG consists of four MMG with 8 hex range, and can be neither Removed nor Scrounged.

†Make four To Kill DR on the MG column when using the AP To Kill Table; only one DR (firer's choice) is used.
See also Russian Vehicle Note A



◊


44. ZIS-42-AA: Just prior to the outbreak of the war, a limited number of 25mm M1940 AA guns were mounted on modified ZIS-5 trucks. They were probably used by motorized/mechanized units.
See also Russian Vehicle Notes A, F



◊


45. IAG-10-AA: A standard AA gun mounted on a IAG heavy truck. Probably used by motorized/mechanized units, with one battery of eight vehicles in the division's AA battalion.
See also Russian Vehicle Notes A, F



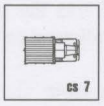
◊


46. GAZ-67B: This was a 4×4 car closely patterned after the U.S. Jeep but using GAZ automobile components (including a modified Model A Ford engine).
See also Russian Vehicle Note L







◊


47. Counters are provided for three common Soviet trucks, although they were by no means commonly used in other than motorized/mechanized units. The GAZ-MM was commonly known as the Russki-Ford; the ZIS-5 as the Stalin Truck. During WW2 the Soviet Union produced about 344,000 cars and trucks, while it received some 433,000 from the U.S. alone.

48. Stuart III: Although called the Stuart III for game purposes, most of the M3A1 light tanks sent to the Soviet Union were the (Mark) IV type with diesel engines. The Soviets disliked the Stuart's high silhouette and its fixed BMG (which they, like the British, often removed).

49. Lee: The U.S. shipped Lees (M3 Medium) to the Soviet Union from late 1941 through August 1942. Their high silhouette and bow-mounted gun rendered them unpopular with Soviet tankers, however. One known use of Lees in Russia was during the unsuccessful amphibious operation at Ozereyka Bay in Feb. 1943, where afterwards the Germans counted 31 knocked-out Lees and Stuarts.

50. Sherman III: The first shipment of some 200 75mm Sherman III (M4A2) medium tanks was made in September 1942; further shipments were not made until July 1943, but then continued on through 1944 with a total of 1991 M4A2s and 2 M4A4s being delivered by 31 December 1944. The Soviets not surprisingly regarded the Sherman as inferior to the T-34, but could not have failed to be impressed by its durability—since a Sherman could generally be expected to run at least three times as long as a T-34 before suffering a mechanical breakdown.

†RF is 1.5 in 1943.

†The number listed as shipped includes the late models [signified by "(L)" in piece name].

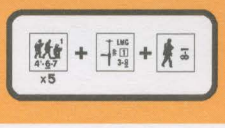
51. Matilda II: The Matilda was the second most common Lend-Lease British tank used by the Soviets. They did not like it however, and criticized both its slow speed and its poor performance in winter. It was used mainly for infantry support. In deep snow scenarios, assume the Matilda's MP allotment to be printed in red.

52. Valentine II, V, & VIII: The Soviets received more Valentines than any other British tank. They also preferred it over the others because of its higher speed and greater reliability—but they still (justifiably) considered it manifestly inferior to their own T-34. Almost all Marks were sent; the Marks II, V, and VIII given in the Listing are representative of the various types.

†The number listed as shipped is for all Marks—and includes 1,388 Marks VI-VII built in Canada.

53. Churchill III: Due to their weight, Churchills were considered heavy tanks by the Russians, who regarded them as inferior to their own KV heavy tanks. The only heavy tanks available to

© 2000 Multi-Man Publishing, LLC



the 5th Guards Tank Army at Kursk were 35 Churchills in an independent heavy tank regiment.

54. M3A1: Lend-Lease M3A1 scout cars were used by the Soviets primarily for liaison, scouting, and as prime movers for guns.

55. M5 & M9A1: Lend-Lease halftracks were used by the Soviets almost exclusively in the HQ units of armored formations. They were rarely, if ever, used as tactical infantry transport. The number of M9A1 halftracks listed as shipped includes 342 of the M2 version.

56. M17: The M17 MGMC was the Lend-Lease equivalent of the U.S. M16 MGMC, and was the most common AA vehicle used by the Soviets. They were allotted to Tank and Mechanized Corps.

57. Carriers: Carriers from Great Britain, Canada, and even 96 U.S.-built types were Lend-Leased to the Soviet Union. They were used for scouting, liaison, and troop transport.

58. Trucks: Most Lend-Lease trucks were modern purpose-built military vehicles of 4×4, 6×4, or 6×6 configuration. This gave them better off-road mobility than the obsolete Soviet designs, which were basically copies of 1930 U.S. vehicles. On the other hand, the Lend-Lease types probably had problems in the severe Russian winters (as western vehicles do in the Soviet Union to this day). U. S. trucks contributed vitally to the motorization of the Red Army, and became so common in certain areas that the locals sometimes thought the "USA" stencilled on them stood for "Ubiyat Sukinsyna Adolf" ("kill that sonofabitch Adolf").

LEND-LEASE VEHICLES

The United States supplied the Soviet Union with some $9 billion worth of goods and materials during World War II. Included in this were some 7,200 tanks (of which 6,300 arrived), over 432,500 trucks, and just over 14,000 aircraft. Great Britain and Canada supplied the U.S.S.R. with about 5,200 tanks (of which some 4,600 arrived), 4,000 planes, over 2,500 Carriers, and several types of trucks. The Soviets generally belittled the AFV of the Western Allies and relegated many to secondary fronts, thus releasing their own AFV for use in more important areas at a time when Soviet AFV production was still recovering from the setbacks of 1941. More recent reports of Soviet tactical doctrine indicates that Russian policy was to operate 'Western' tanks on their southern fronts where winter conditions were not so harsh. On the other hand, the great influx of trucks and other transport vehicles gave Soviet units a degree of mobility that could not have been attained had they been solely dependent on their own domestic truck production, which out of necessity had to be greatly curtailed to allow increased AFV production. In sum, while the Soviets have minimized the effects of Lend-Lease on their ability to defeat Germany, it is fair to say that in this regard it was not decisive but was certainly significant.

For DYO purposes use British counters to represent the following vehicles in Soviet service. All pertinent Vehicle Notes apply normally. As a rule of thumb, keep in mind that generally only one type of Lend-Lease tank was used in a Soviet tank brigade or regiment - although often in conjunction with Soviet light or medium tanks. Note also that since the Soviets have been largely reticent concerning their use of Lend-Lease vehicles, the Dates given below are in many cases estimates based on shipping and/or delivery dates.

Name	Type	Dates	RF	#Shipped	Notes
Stuart III	LT	42-43	1.5	1,676	48
Lee	MT	42-43	1.5	1,386	49
Sherman III	MT	43-45	1.5-1.4†	1,991	50†
Sherman III (L)	MT	10/43-45	1.4	†	50†
Matilda II	HT	12/41-43	1.5	1,084	51
Valentine II	HT	12/41-43	1.5	3,700+	52
Valentine V	HT	43	1.4	†	52†
Valentine VIII	HT	43-44	1.4	†	52†
Churchill III	HT	43	1.6	301	53
M3A1	SC	43-45	1.4	3,310	54
M5	ht	43-45	1.6	403	55
M9A1	ht	43-45	1.5	755	55
M17	AAht	44-45	1.5	1,000	56
Carrier	APC	42-45	1.4	2,656	57
Jeep	tr	43-45	1.3	20,000+	58
Beep	tr	43-45	1.3	50,000+	
1½ ton	tr	43-45	1.2	151,053	
2½ ton	tr	43-45	1.2	200,662	
7½ ton	tr	43-45	1.5	2,972	

RUSSIAN MULTI-APPLICABLE VEHICLE NOTES

A. MA and CMG (if so equipped) have AA capability—signified by "MA:AA" being printed on the counter.

B. Due to being in a fixed mount and fired remotely, this BMG receives a +1 DRM to all fire at a moving/Motion target. This penalty is signified on the counter by a white dot over the BMG factor.

C. This AFV has no radio in scenarios set prior to 1943 (see D14). As of 1943 it is radio-equipped.

D. Optional AAMG RF is 1.3. If available, optional RMG RF is 1.3.

F. MA may not fire at a same or lower level target through the VCA—as signified by "MA: NA VCA" being printed on the counter. If "No Bnd(F)F" appears on the counter, the vehicle may not use Bounding (First) Fire.

G. Optional AAMG is 12.7mm, with RF of 1.2.

H. The Target Size To Hit DRM is +3 (and also HD) if in a Water Obstacle or deep/flooded stream hex.

I. Increase 1941 RF by .1 for each month after 7/41.

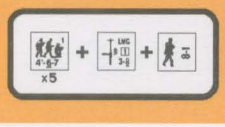
J. This AFV may possibly carry smoke dischargers (sD). Use rule D13 *[EXC: they are usable only once per scenario]*.

K. Uses red To Hit numbers despite its non-Russian manufacture.

L. Vehicle has Low Ground Pressure (D1.41)—signified by its identity letter being inside a square. Moreover, when this vehicle is bogged, one (only) CX squad (even a Prisoner—but not a Guard) on foot expending ≥ four MF in the vehicle's Location (and declared to be assisting its unbogging) thereby allows the owning player to subtract 2 (1 per crew/HS) from the colored dr of its immediately subsequent unbogging DR.

M. Russian tracked AFV of the early war years had notoriously poor transmissions. Not only were they plagued by breakdowns, but were also extremely difficult to shift; in fact, many models carried as standard equipment a large hammer which the driver used on the shift lever to "persuade" it to move. Therefore, each time a

© 2000 Multi-Man Publishing, LLC



Mechanical Reliability DR (D2.51) is made for a Russian built AFV, an 11 result indicates that the AFV has stalled or suffered transmission difficulties that have prevented it from starting normally. Its owner must then immediately make another DR, which equals the total number of Delay MP (including one MP to stop, but excluding the MP expended to start) that the AFV has used in the unsuccessful attempt to move. It can again attempt to move, but must expend another MP to start—and must undergo another Mechanical Reliability DR as it does so. An AFV that stalls is subject to Defensive First Fire (since it has expended a MP to start), but not as a moving target unless it had already entered a new hex during the same MPh. Should a Stall result in more Delay MP being expended than the AFV has available, the AFV is considered to have expended its entire MP allotment in Delay.

RUSSIAN ORDNANCE NOTES



1. 50mm RM obr. 40: Superseded the overly-complex models 38 and 39 as the standard Soviet company mortar. Its design was extremely simple, and it could be fired at only two different elevation settings: 45° or 75° (some sources state that it also had an 82° setting). An adjustable sleeve vent at the base of the barrel allowed a variable portion of the propellant gas to bleed off, thus shortening the projectile's range at a given elevation setting. A large number of the RM 40 (and its successor, the 50mm RM obr. 41) were built but, as in the German Army, the light mortar gradually lost favor due to its lack of punch and diminished in use as the war progressed.



2. 82mm BM obr. 37: A slightly redesigned copy of the French Brandt medium mortar. It was used primarily for support at the battalion level. The later versions (BM 41 and 43) had wheels, thus obviating the need to disassemble the mortar for long hauls; therefore, after 1941 this mortar can be fired once in the same phase either prior to becoming dm or after reverting to non-dm status.

†RF is 1.1 prior to 1942; 1.3 in 1942; and .9 after 1942.



3. 107mm GVPM obr. 38: An enlarged version of the BM 37 designed specifically for mountain troops. It weighed about 350 lb. in action and fired an 11.6 lb. bomb.

See also Russian Ordnance Note A



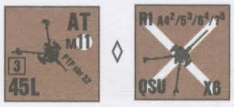
4. 120mm PM obr. 38: The best heavy mortar of WWII. In fact, the German GrW 42 was an almost direct copy of it. It was widely used by the Soviets, both as a regimental support weapon (after 1941 one battery of 6 tubes per rifle regiment; 9 tubes if Guards) and in 120mm mortar brigades.



5. 160mm PM obr. 43: Due to the weight of its bomb (90lbs), this mortar incorporated breech-loading, which necessitated elevating the breech clear of the baseplate before reloading could take place. It was used as divisional artillery by some Soviet units.



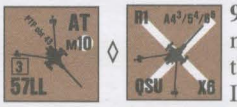
6. 37mm PTP obr. 30: A license-built version of the German 3.7cm AT gun, with the only difference being the use of wire spoked wheels on the Soviet model. It was probably used by second-line units, as the superior 45mm AT gun was in widespread service by 1941.



7. 45mm PTP obr. 32: Basically the 37mm PTP 30 with a 45mm barrel substituted. At the time of its introduction it was the most powerful purpose-built AT gun in the world and, along with its successor the Model 37, formed the mainstay of the Red Army's AT defenses through the first half of WW2. A light AT gun platoon consisted of two guns; a battery could contain either two or three platoons; and a battalion contained six platoons.



8. 45mm PTP obr. 42: An updated and more potent version of the PTP 32 and 37, incorporating several minor design changes—most important of which was an increase in barrel length (and thus armor penetration).

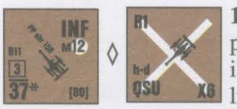


9. 57mm PTP obr. 43: This gun was originally introduced in the spring of 1941 as the Model 41, but in very small numbers. In 1943 it was re-issued in a slightly modified form, and remained in Soviet service for many years after the war. It was also referred to as the ZIS-2.

†RF is 1.6 prior to 1943.



10. 100mm PTP obr. 44: An extremely potent gun with the usual Soviet dual purpose field/AT gun capability. It is also commonly known as the D-10. Slightly modified versions were used in the SU-100 tank destroyer (D-10S) and the post-war T-54 tank (D-10T). The D-10 (and a later version, the M1955) remain in service to this day in some Soviet-equipped armies.



11. 37mm PP obr. 15R: This diminutive support piece entered service with Imperial Russian Army in 1915 and in 1941 was still in limited use, probably with second-line units.

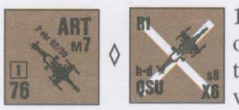


12. 76.2mm PP obr. 27: A sturdy and reliable gun also known as the 75-27. A battery of six provided support for each rifle regiment. The Germans appreciated the 75-27's simplicity and its longer range compared to their own 7.5cm leIG 18. Consequently, those they captured were retained and eventually saw service on all fronts, many of them using German sights and ammunition specially produced in Germany.

See also Russian Ordnance Note A



13. 76.2mm obr. 00/02P: This gun had originally been designed at the turn of the century and had seen action with the Imperial Russian Army during WWI. Subsequently, it became the mainstay of the new Red Army's artillery arsenal, but by 1941 was only in limited use, probably with second-line units. Other armies also using this gun in 1941 were Rumania and Finland.



14. 76.2mm obr. 02/30: An updated model of the original 00/02P gun. The modification actually resulted in two "new" guns with different barrel lengths; the game piece represents the shorter-barrelled version. It was in widespread use in 1941 and the Germans captured many, which they subsequently used throughout Europe.



15. 76.2mm obr. 39: Also called the 76-39, this Soviet field gun also had a designed anti-tank capability. It was intended as a replacement for the 76-36 since it was lighter and thus easier to manhandle. The game piece also represents the

© 2000 Multi-Man Publishing, LLC

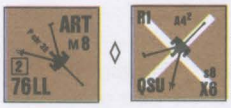


RUSSIAN ORDNANCE LISTING

#	Name	Type	CSize	ROF(IFE)	B#	Range	M#	TSize	Dates	Special	BPV	RF	Notes
5	50mm RM obr. 40	MTR	50*	3		3-20		—	39-45	4PP		—	1
4	82mm BM obr. 37	MTR	82*	3		3-78	11	+1	37-45	NT, QSU, s8, IR	28	1.1-.9†	2†
2	107mm GVPM obr. 38	MTR	107*	2		10-152	10	+1	38-42	NT, QSU, s8	22	1.4	3
4	120mm PM obr. 38	MTR	120*	2		12-151	**9**	+1	38-45	NT, QSU, s8	24	1.3	4, A
2	160mm PM obr. 43	MTR	160*		11	19-129	**6**	0	44-45	NT, no IF	17	1.5	5
4	37mm PTP obr. 30	AT	37L	3		120	12	+1	31-45	NT, QSU	26	1.2	6
4	45mm PTP obr. 32	AT	45L	3		110	11	+1	33-45	NT, QSU, $A4^2/5^3/6^4/7^5$	29	1.0	7
4	45mm PTP obr. 42	AT	45LL	3		138	11	+1	42-45	NT, QSU, $A4^2/5^3/6^4/7^5$	30	1.1	8
4	57mm PTP obr. 43	AT	57LL	3		210	10	+1	41-45†	NT, QSU, $A4^3/5^4/6^5$	36	1.6-1.3†	9†
2	100mm PTP obr. 44	AT	100L	1		525	**4**	0	1-5/45	NT	43	1.5	10
4	37mm PP obr. 15R	INF	37*	3	11	80	12	+1	15-41	NT, QSU, h-d	20	1.1	11
4	76.2mm PP obr. 27	INF	76*	2		214	8	+1	27-45	NT, QSU, H6, s8	30	1.0	12, A
2	76.2mm P obr. 00/02P	ART	76*	1	11	219	8	0	02-41	NT, QSU, s8, h-d	21	1.3	13
4	76.2mm P obr. 02/30	ART	76	1		310	7	0	30-42	NT, QSU, s8, h-d	27	1.0	14
4	76.2mm P obr. 39	ART	76L	2		332	9	0	39-45	NT, QSU, $A4^2/5^3/6^4/7^5$, s8	35	1.2-.9†	15†
4	76.2mm P obr. 36	ART	76LL	2		340	8	0	11/39-42	NT, QSU, $A4^2$, s8	38	1.2-1.4†	16†
4	85mm P obr. 44	ART	85L	2		387	7	+1	44-45	NT, QSU, $A5^4/6^5$, s8	43	1.4	17
2	107mm P obr. 10/30	ART	107	1	11	409	**7**	0	30-41	NT, s8, h-d	27	1.3	18
3	122mm G obr. 10/30	ART	122*	1	11	223	**8**	0	30-42	NT, s8, h-d	30	1.1	19
3	122mm G obr. 38	ART	122	1		303	**6**	0	39-45	NT, H6, s8	34	1.1	20
2	122mm P obr. 31	ART	122L	1		522	**2**	-1	33-45	NT, s8	44	1.3	21
2	152mm G obr. 38	ART	152*			310	**4**	-1	39-45	NT	40	1.2	22
2	152mm GP obr. 37	ART	152			432	**2**	-1	37-45	NT	44	1.3	23
2	25mm ZP obr. 40	AA	25LL	3 (6)	11	113	9	+1	40-41	T	25	1.5	24
4	37mm ZP obr. 39	AA	37L	3 (8)		200	8	0	9/39-45	T	30	1.2-1.3†	25†
2	76.2mm ZP obr. 38	AA	76LL	2		350	**5**	-1	31-42	T	39	1.2-1.4†	26†
2	85mm ZP obr. 39	AA	85L	2		391	**5**	-1	39-45	T	44	1.3	27

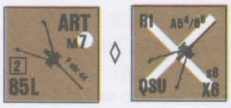
later obr. 42 (76-42), which had a new carriage and a muzzle brake. These two models became the standard Soviet light artillery/medium AT guns for the duration of the war, with four constituting a battery. They also remained in use for many years after the war, and indeed are still in service with some armies. The high velocity 76mm gun was called the "crash-boom" by the Germans, due to its supersonic shell exploding on the target before the defenders could hear the sound of the gun firing. Any gun whose shell traveled faster than the speed of sound could actually be called a crash-boom, but this nickname was applied primarily to the 76mm types since they were so commonly encountered.

†RF is .9 after 1942.



16. 76. 2mm obr. 36: Also known as the 76-36, this was a standard Soviet field gun with very potent anti-tank capabilities. Introduced in 1939, it first saw action in the Winter War against Finland, and some captured by the Finns were subsequently used against their former owners. It seems the Germans captured practically all the remaining guns of this type, and were so impressed by them that they rebuilt and issued many as the 7.62cm PaK 36r.

†RF is 1.4 in 1942.



17. 85mm obr. 44: Also referred to as the D-44, this was yet another field gun with purpose-built anti-tank capabilities. In fact, it was mostly used as an AT gun. A similar gun (the D5T) was mounted in the SU-85 tank destroyer, as well as in the KV-85 and very early models of the T-34/85. A modernized version of the D-44 is currently used by Soviet airborne forces; it has a two-cylinder engine and a third (steerable) wheel attached, and is thus capable of limited SP mobility at up to 4.5 mph.



18. 107mm obr. 10/30: A pre-WWI gun of French design, updated in 1930 by replacing the original barrel. It was commonly known as the 107-10/30, and many were in use as corps artillery in 1941. A longer-barrelled version (the 107-40 M60) was just entering service when the Germans invaded; its use was short-lived however, for the Germans overran many of its production facilities. A tank gun version of the 107-40 was also being designed at this time as the main armament of the prototype KV-3 heavy tank, which would have superseded the KV-1 had the Germans not invaded when they did.



19. 122mm G obr. 10/30: This gun was originally the French Schneider l0S, imported in large numbers by Imperial Russia prior to the First World War. In 1930 they were modernized and were then known as the 122-10/30. Many were captured and used by the Germans, and the Finns also acquired some.

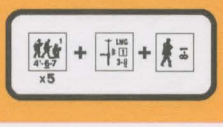


20. 122mm G obr. 38: This howitzer was the medium artillery piece of first-line rifle divisions, rifle corps, independent artillery brigades, and artillery divisions. Four pieces formed a battery, and three batteries a battalion. Also known as the M-30, it was produced in great numbers and remains in use in many countries today. The M30S version was used in the SU-122 assault gun.



21. 122mm obr. 31: The 122-31 (as it was also known) was an original Soviet design that utilized the carriage of an interim 152mm gun-howitzer (the 152-10/34). Along with a later version (the 122-37 or A-19) it was used in artillery divisions and independent artillery brigades, with two guns per battery and six per battalion. Several modified versions of the A19 were carried by the ISU-122 assault gun and IS tank series.

© 2000 Multi-Man Publishing, LLC





◊


22. 152mm G obr. 38: A very good heavy howitzer with a designed anti-tank capability. It was also referred to as the M-10, and was used by rifle corps, artillery divisions, and independent artillery brigades, with four constituting a battery and twelve a battalion. The M-10T version was mounted in the KV-2 heavy tank.



◊


23. 152mm GP obr. 37: An excellent heavy gun howitzer that actually was a combination of the earlier 152-10/34 barrel and the 122-37 carriage. It was intended primarily for counter-battery fire in artillery divisions and independent artillery brigades, but also had a designed anti-tank capability. Other designations for this gun are 152-37 and ML-20; when used in the ISU-152 assault gun it was known as the ML-20S. The ML-20 was so successful that today it is still in service in many countries.



◊


24. 25mm ZP obr. 40: Apparently this light AA gun was produced in small numbers only, and few facts regarding it have come to light. It's possible that it was not a very successful design since three different versions were built in rapid succession; the Models 39, 40, and 41. On the other hand, it may be that the Model 41 was intended to become standard issue but its manufacturing facilities were overrun in 1941, thus bringing its production to a premature halt. Of course, it is also possible that the Soviets simply decided to concentrate their efforts on AA guns of larger caliber.



◊


25. 37mm ZP obr. 39: A rugged, no frills gun derived from the Swedish Bofors. Large numbers of captured pieces were used by the Germans to equip their own FlaK units. The fact that it is still currently in service with a number of countries vouches for its successful design. Soviet light AA batteries were usually comprised of four or six guns each. It is interesting to note that rifle divisions lost their organic light AA battery in mid 1942. This process of centralization combined light and heavy AA batteries into AA divisions which were allotted to Armies and Fronts, and then assigned as needed to lower formations. Four batteries of four guns each also equipped each tank and mechanized corps.

†RF becomes 1.3 in 1943.



◊


26. 76.2mm ZP obr. 38: The standard Soviet heavy AA gun of the 1930s. The date given for this piece includes the earlier Model 31, which is equivalent in game terms. The Germans captured a large number of these AA guns and, starting in 1943, modified many to use 8.8cm ammunition. In Soviet service, the 76.2mm AA guns apparently either lost favor or had their production facilities overrun; their use seems to have declined rapidly after the rifle division's heavy AA battery was officially deleted at the end of July 1941.

†RF is 1.4 in 1942.



◊


27. 85mm ZP obr. 39: This gun was designed to replace the earlier 76.2mm AA guns. Also known as the KS-12, it was used in AA divisions. A later version, the Model 44 (or KS-18), was basically a more heavy-duty model, and continues in widespread service today.

RUSSIAN MULTI-APPLICABLE ORDNANCE NOTES

A. This weapon may be Animal-Packed (G10).

© 2000 Multi-Man Publishing, LLC

© 2000 Multi-Man Publishing, LLC

RUSSIAN VEHICLE RARITY FACTOR CHART

.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6

| NAME | 39 | 1940 | | | | | | | | | | | | 1941 | | | | | | | | | | | | 1942 | | | | | | | | | | | | 1943 | | | | | | | | | | | | 1944 | | | | | | | | | | | | 1945 | | | | | | | | NAME |
|---|---|---

RUSSIAN ORDNANCE RARITY FACTOR CHART

.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6

NAME	39	1940											1941											1942											1943											1944											1945						NAME
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A		
82mm BM obr.37																																																								82mm BM obr.37
107 GVPM obr.38																																																								107 GVPM obr.38
120 PM obr.38																																																							120 PM obr.38
160 PM obr.38																																																							160 PM obr.38
37mm PTP obr.30																																																								37mm PTP obr.30
45mm PTP obr.32																																																								45mm PTP obr.32
45mm PTP obr.42																																																								45mm PTP obr.42
57mm PTP obr.43																																																								57mm PTP obr.43
100mm PTP obr.44																																																								100mm PTP obr.44
37mm PP obr.15R																																																								37mm PP obr.15R
76.2mm PP obr.27																																																								76.2mm PP obr.27
76.2mm P obr.00/02P																																																								76.2mm P obr.00/02P
76.2mm P obr.02/30																																																								76.2mm P obr.02/30
76.2mm P obr.39																																																								76.2mm P obr.39
76.2mm P obr.36																																																								76.2mm P obr.36
85mm P obr.44																																																								85mm P obr.44
107mm P obr.10/30																																																								107mm P obr.10/30
122mm G obr.10/30																																																								122mm G obr.10/30
122mm G obr.38																																																								122mm G obr.38
122mm P obr.31																																																								122mm P obr.31
152mm G obr.38																																																								152mm G obr.38
152mm GP obr.37																																																								152mm GP obr.37
25mm ZP obr.40																																																								25mm ZP obr.40
37mm ZP obr.39																																																								37mm ZP obr.39
76.2mm ZP obr.38																																																								76.2mm ZP obr.38
85mm ZP obr.39																																																								85mm ZP obr.39
NAME	39	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A		NAME
		1940												1941												1942												1943												1944												1945					

© 2000 Multi-Man Publishing, LLC



U.S. VEHICLE NOTES

The National Defense Act of 1920 made tanks a responsibility of the Infantry, under whose benign neglect U.S. tank development languished for almost a decade. In 1931 MacArthur, as the new Chief of Staff, instituted a vigorous policy of motorization and mechanization for the Army. One element of his vision was an exploitation role for mechanized cavalry using tanks, and soon afterward the Cavalry took the initiative in AFV development and tactics away from the Infantry. (Ironically, until 1940 the Cavalry was forced to call its tanks "combat cars" because legally only the Infantry could possess "tanks".) Tank development accelerated during the 1930s; the Infantry began developing a medium tank, and several types of combat cars and light tanks entered production. However, the tight budgets of that era, coupled with America's isolationist outlook, kept production figures extremely low in view of the ominous clouds on the political horizon. Consequently, in May 1940 as the German Army was overrunning France and the Low Countries, the U.S. had only about 300 tanks in service—and of these only eighteen woefully inadequate M2A1 Mediums and ten M2A4 Lights were gun-armed (with a 37mm piece); all the rest were armed only with MG. The stunning German victory over France, and the ensuing Battle of Britain, shocked America out of its lassitude and spurred government and industry to gear up for the production of armaments in what would become fantastic quantities.

U.S. vehicles, with a few exceptions, were highly regarded for their reliability and ease of operation. For example, the Soviets felt that it was excellent for one of their tanks to run for fourteen hours without a mechanical failure, whereas a U.S. tank was expected to run for at least forty hours without a breakdown. Moreover, German and Japanese tank tracks had an average life of about six hundred miles, while U.S. tank tracks averaged about three thousand miles. Overall, American AFV designs were not ingenious, but usually were competent and adequate when brought into service. Unfortunately there was far too much resistance to the introduction of improved models (due to both a desire to keep production at full capacity and an unwillingness to change tactical doctrines), with the result that U.S. AFV found themselves outgunned and underarmored from 1944 on. Combined with tactics that were often less than inspired, this frequently allowed an outnumbered German force (which was sometimes more experienced but usually technically superior) to exact a heavy toll of attacking American AFV.

Thanks in part to factories that were safe from enemy bombs and invading armies, during WW2 the U.S. produced some 207,000 AFV (including 88,410 tanks and 53,813 halftracks) and 3,200,436 soft-skin military transport vehicles. Indeed, more U.S. tanks were Lend-Leased to the British Empire than either she or Germany produced individually. America truly was the Arsenal of Democracy.

The Army used an alphanumeric system of nomenclature for its vast array of materiel. This system showed not only the basic model of an item but also any modifications to it. "T" stood for an equipment type still in the developmental stage, while "M" signified a standardized type. "E" represented an experimental modification to the basic type, and "A" a standardized modification. "B" indicated a major change in production (e.g., a vehicle with another chassis substituted for the standard one). The number following each letter generally—but not always—gave its numerical sequence; e.g., "M1E3" would designate the first model of a particular type of equipment M1, which also incorporated the third in a series of experimental modifications. This M1 equipment type could be a helmet, a tank, a slide rule, etc.

[Note: ETO stands for European Theater of Operations, which in game terms comprises Europe and Sicily. PTO stands for Pacific Theater of Operations, which in game terms equals "vs Japanese".]



1. *M2A4 Light Tank:* The Army's most modern light tank in 1940. 375 were built. It was a very reliable and well-armed light tank for its time, but was rapidly superseded by the improved M3 version. The M2A4 saw combat only on Guadalcanal with Company A of the 1st Marine Tank Battalion.



2. *M3 Light Tank:* A large number of improvements were made to the M2A4 in early 1941, resulting in the M3 Light Tank. 5,811 were built. A small number were with the 1st Armored Division during the Torch landings and the subsequent fighting in Tunisia. In the PTO the 192nd and 194th Tank Battalions with a total of 108 M3 Lights (and no HE ammo) formed the core of the 1st Provisional Tank Group, which was employed in the defense of the Philippines (12/41-4/42); more than thirty of them were captured by the Japanese, whose 7th Tank Regiment used them against the returning Americans in 1944-45. M3 Light Tanks were also used on Guadalcanal (8-12/42) by Company B of the 1st Marine Tank Battalion. The M3 garnered the distinction of becoming the first U.S.-built AFV to see combat in WW2 when the British used it in Operation Crusader (11/41).

†Dates for use in other than the PTO are 11/42-5/43. PTO Dates are 41-42.



3. *M3A1 Light Tank:* This was an improved version of the M3 Light Tank, incorporating a remodelled turret, deletion of the two fixed BMG, and standardization of the gyrostabilizer. 4,621 were built. The M3A1 first saw action on Guadalcanal (9-12/42) with Company C of the 1st Marine Tank Battalion, and remained in widespread use with the Marines until early 1944 when the M5A1 Light Tank began to replace it. In North Africa, both Light Tank Battalions (1st of the 1st Armored Regiment and 1st of the 13th Armored Regiment) in the U.S. 1st Armored Division were equipped primarily with the M3A1.

‡Dates and RF for use in other than the PTO are 11/42-5/43 and 1.2. PTO Dates are 9/42-44. RF in the PTO is 1.2 from 9/42 through 6/44; thereafter increase RF in this theater by .1 for each two-month period after 6/44, until 1.5 is reached in 11/44.



4. *M3A1 Satan:* The need to eliminate Japanese bunkers created a requirement for flamethrower tanks. The Marines met this by replacing the MA on some of their M3A1 Light Tanks with a Canadian-built Ronson FT. They were first used on Saipan by Company D of the 4th Marine Tank Battalion. Each such battalion was to have 24 Satans; however, while some sources state that each possessed an average of about 18, other sources claim that only 20 Satans were ever built. The Army also used a very small number of similar vehicles (based on the M5A1) on Luzon, 4-5/45.



5. *M5A1 Light Tank:* The M5 did not replace the M3A1 but rather was produced concurrently with it, and actually entered production several months before the latter. (Since the M5 and M5A1 are equivalent in game terms there is no M5 counter.) Its front hull plates were sloped to enhance protection and its turret-front armor was increased. This new armor configuration was then also applied to the M3A1, resulting in the M3A3 which was used only for Lend-Lease purposes. While the designers were thusly creating the M3A3 they decided to also improve its gun mount and move the radio from the hull to the rear of the turret. This new turret was judged superior to that of the M5 and was consequently introduced on M5 production lines, thus creating the M5A1. Both M5 and M5A1 were used to replace combat losses in the light tank battalions of the 1st Armored Division in Tunisia. By the time of the invasion of Sicily in July 1943, all M3 and M3A1 Lights had been withdrawn from active service in the ETO, making the M5A1 the Army's standard light tank. In the PTO the U.S. did not use the M5A1 in action until Feb. 1944, with the 4th Marine Tank Battalion on Roi-Namur. 2,074 M5 and 6,810 M5A1 were built—and altogether 19,316 M3-M5A1 Light Tanks were produced. Five constituted a platoon in both Army and Marine use. The British referred to tanks of the M3-M5A1 series as "Stuarts".

†RF in North Africa (11/42-5/43) is 1.3; thereafter in ETO scenarios its RF is 1.1. PTO Dates are 2/44-45, while RF in this theater is 1.3 for 2-5/44, 1.2 for 6-7/44, and 1.1 thereafter.



6. *M24 Light Tank:* The replacement for the M5A1 was the M24, also known as the "Chaffee" (for Gen. Adna Chaffee, the "Father of the U.S. Armored Force"). It used a modified M18 GMC chassis, while having a completely new turret that mounted a lightweight 75mm aircraft gun adapted from the B-25H Mitchell bomber. At least two (used by the 740th Tank Battalion) saw action during the Battle of the Bulge. By VE Day all Light Tank companies in the 7th Armored Division, and all Light Tank troops in mechanized cavalry squadrons in NW Europe, had been completely re-equipped with the M24. M24 production totalled 4,195 in the period 4/44-6/45. Chaffees also saw combat with U.S. forces in the postwar era, being the first tanks to reach South Korea. They went into action on July 10, 1950 near Chonui but it quickly became apparent

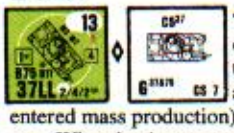
U.S. VEHICLE LISTING

	#	Name & Type	WGT	BPV	RF	Dates	Size	AF	TA	OT	CS	MP	GP	GT	MA	ROF	B#	IF	BMG	CMG	AAMG	SA	Am	s#	sM#	PP/T#	Notes
1	5	M2A4 *LT*	10	42	1.3	8-12/42	0	3			4	18		ST	T37LL				4†	4	2		C10[F]†[1]				1,B†,C†[1],P
	5	M3 *LT*	12.5	44	1.3	41-5/43†	0	4/3	+SR		4	18		ST	T37LL	1			4†[1]	4	2		C7[A2+]†[2]				2†,B†[1],C†[2],N
	6	M3A1 *LT*	13	45	1.2-1.5†	9/42-44†	+1	4/3	+SR		4	18		ST	T37LL	1			2	4	2	†[1]	C7†[2]				3†,C†[2],F†[1],G,N
	3	M3A1 Satan *LTv*	13	65	1.4	6/44-6/45	+1	4/3	+SR		4	18		ST	TF32		X11		2	4							4,P
2	6	M5A1 *LT*	15.5	46	1.3-1.1†	11/42-45†	+1	6/3	+SR		4	17		ST	T37LL	1			2	4	2	†[1]	C7†[2]				5†,C†[2],F†[1],G,N,Y
	5	M24 *LT*	17.5	71	1.6-1.3†	12/44-5/45	0	6/3	+SR		5	18		T	T75	1†[1]			2	4	4			5;WP7	8		6†,G,P,R†[1]
	6	M3 *MT*	28	64	1.0	11/42-11/43†	−1	8/4	+SR		7	13		T-NT	T37LL	1†	11†		2†[1]	4	2†	B75	C5†[2]				7†,B†[1],C†[2],G,N
	6	M4 *MT*	30.5	68	1.0	7/43-45†	−1	8/4	+SR		5	13		T	T75	1†[1]			2	4	4	†[2]		5[3+];WP7[3+]†[3]	5[4+]		8†,F†[2],G,R†[1],Y,BB†[3]
3	6	M4A1 *MT*	30.5	70	1.4-.9†	12/42-45†	−1	11/4	−F/+SR		5	13		T	T75	1†[1]			2	4	4	†[2]		5[3+];WP7[3+]†[3]	5[4+]		9†,F†[2],G,N,R†[1],Y,BB†[3]
	6	M4A2 *MT*	31	69	1.1	11/43-6/45	−1	8/4	+SR		5	14		T	T75	1†			2	4	4	†[1]		5[3+];WP7[3+]†[2]	5[4+]		10,F†[1],G,P,R†,BB†[2]
	4	M4A2 (L) *MT*	32	72	1.3	7/44-6/45	−1	11/4	−F/+SR		6	14		T	T75	1†			2	4	4	†[1]		5;WP7	8		11,F†[1],G,P,R†
	5	M4A3 *MT*	30.5	70	1.3	7/43-45†	−1	8/4	+SR		5	15		T	T75	1†[1]			2	4	4	†[2]		5[3+];WP7[3+]†[3]	4[4+]		12†,F†[2],G,R†[1],Y,BB†[3]
4	6	M4A3(75)W *MT*	31.5	73	1.1	6/44-45†	−1	11/4	−F/+SR		6	15		T	T75	1†[1]			2	4	4	†[2]		5;WP7	8		13†,F†[2],G,R†[1],Y
	4	M4A3E2 *MT*	38	78	1.5	9/44-5/45	−1	18/8	+SR		6	12		T	T75	1†			2	4	4	†[1]		5;WP7	8		14,F†[1],G,P,R†
	2	M4A3E2 (L) *MT*	38	82	1.6-1.5†	10/44-5/45	−1	18/8	+SR		6	12		T	T76L	1			2	4	4	†[1]	A4[4]/5[3]	5[3]	8		14†,F†[1],G,P
	6	M4A1(76)W *MT*	32	76	1.2-1.1†	7/44-5/45	−1	11/4	−F/+SR		6	13		T	T76L	1			2	4	4	†[1]	A4[A4]/5[3]†[2]	5[3]	8		15†,A†[2],F†[1],G,P,Y
5	6	M4A3(76)W *MT*	32	77	1.1-.9†	7/44-5/45	−1	11/4	−F/+SR		6	15		T	T76L	1			2	4	4	†[1]	A4[A4]/5[3]†[2]	5[3]	8		16†,A†[2],F†[1],G,P,Y
	3	M4(105) *MT*	31.5	72	1.4-1.3†	6/44-45	−1	11/4	−F/+SR		6	13		ST	T105				2	4	4		H9;C7[F]†[1]	7;WP9	8		17†,C†[1],Y
	3	M4A3(105) *MT*	31	73	1.3-1.2†	7/44-45†	−1	11/4	−F/+SR		6	15		ST	T105				2	4	4		H9;C7[F]†[1]	7;WP9	8		17†,C†[1],Y
	2	M4 Tankdozer *MTv*	31	70	1.3	6/44-45	−1	11†/4	−F/+SR		5	12		T	T75	1†[1]				4	4			5;WP7	6		18†,G,R†[1]
6	2	T1E3 *MTv*	57	55	1.5	7/44-5/45	−1†	8/4	+SR		5	8†	H	T	T75†	1†[1]				4†	4			5;WP7	6		19†,G,P,R†[1]
	2	Sherman Crab *MTv*	33	70	1.6	5/44-45†	−1†	8/4	+SR		5	12		T	T75	1†[1]				4	4	†		5[4+];WP7[3+]†[2]	4		20†,G,R†[1],BB†[2]
	3	POA-CWS-H1 *MTv*	30.5	72	1.5-1.4†	2-6/45†	−1	11/4	−F/+SR		6	13		T	TF32†		X11		2	4	4				8		21†,P
	5	M26 *HT*	41.5	91	1.6-1.5†	3-5/45	0	18/8	−F		6	12		T	T90L	1			2	4	4		A7				22†,P
7	6	M10 GMC *TD*	29.5	65	1.5-1.1†	3/43-45†	0	8/3		•	7	15		ST	T76L	2					4		A[E5A4]/6[3]†[1]	5[3]	sP5†[2]		23†,A†[1],N,S†[2],Y
	6	M18 GMC *TD*	18	71	1.6-1.2†	8/44-6/45†	+1	3/1		•	6	24		T	T76L	2					4		A[E5A4]/6[3]†[1]	5[3]	sP5†[2]		24†,A†[1],S†[2]
	6	M36 GMC *TD*	28.5	83	1.6-1.1†	8/44-5/45	0	8/3		•	7	15		T	T90L	2					4		A5[3]		sP5†[1]		25†,P,S†[1]
	3	M36B1 GMC *TD*	31	85	1.5	1-5/45	−1	11/4	−FSR	•	7	14		T	T90L	2			2		4		A5		sP5†		26,P,S†
8	6	M2 *ht*	8	35	1.1-1.3†[1]	41-45†[1]	+1	0/0	+F	•	4	20			AAMG†	2					6†					9PP/T6	27†[1],E†,H,I†,N
	12	M3 *ht*	8	34	1.0-1.3†	41-45†	+1	0/0	+F	•	5	20			AAMG	1					4†					15PP/T6	28†,N
	6	M3A1 *ht*	8	39	1.2-1.4†[1]	44-45	+1	0/0	+F	•	5	20			AAMG†	2					6†					15PP/T6	29†[1],E†,H,I†,Z
	3	M3(MMG) *ht*	8	56	1.3	11/42-5/45	+1	0/0	+F	•	5	20			AAMG†	2					12†					10PP†	30†,E†,H,N,P
9	3	M3(HMG) *ht*	8	61	1.4	11/42-5/45	+1	0/0	+F	•	5	20			AAMG†	2					16†					10PP†	30†,E†,H,N,P
	3	M4 MC *ht*	8	39	1.4	11/42-5/45	+1	0/0	+F	•	4	20		NT	R81*†	2†[1]	10†[1]				2†[2]			WP8			31†,J†,M†[1],N,O†[2],P
	3	M4A1 MC *ht*	8	44	1.5-1.4†	9/43-45†	+1	0/0	+F	•	4	20		NT	R81*†[1]	2†[2]					2†[3]			WP8			32†,J†[1],M†[2],O†[3]
	3	M21 MC *ht*	8.5	49	1.5	6/44-5/45	+1	0/0	+F	•	4	20		NT	B81*	3					4†			WP8			33,M,O†,P
10	6	M3 GMC *TDht*	9	42	1.2-1.4†	12/41-6/45†	+1	0/0	+F	•	4	19		NT	B75	1					Opt 4†						34†,N,U
	3	T30 HMC *ht*	9	41	1.1-1.5†[1]	11/42-43	+1	0/0	+F	•	4	19		NT	B75*	2					4†		H5;AP7	WP9			35†[1],K†,N,O†,P,U
	3	T19 HMC *ht*	12†	40	1.2-1.5†	11/42-43	+1	0/0	+F	•	4	15†		NT	B105		†				4†[1]		H5	7;WP8			36†,K†[1],N,O†[1],P
	4	M15A1 MGMC *AAht*	9.5	60	1.3-1.5†	11/42-45†	0	0/0/★T†	+F	•	4	18		T	T37L	3(8)				12†	†[1]						37†,N,V†,AA†[1]
11	4	M16 MGMC *AAht*	9	66	1.3-1.5†	44-45†	+1	0/0	+F	•	4	19		T	T12.7†	3(24)†					†[1]						38†,V†,AA†[1]
	4	M3A1 *SC*	5.5	40	1.2-1.5†[1]	40-44	+1	0/0	+F	•	4	28[1]	H		AAMG†	2					6†					9PP†[1]/T8	39†[1],E†,H,I†,N
	4	M20 *SC*	7	39	1.3	44-45†	+1	2/1		•	4	36†[1]	L		AAMG	2					6†[2]				sP5†[3]	5PP	40†,D,O†[2],S†[3],W†[1],Z
	3	T8 *"SC"*†	14.5	36	1.5	1-5/45	+1	6/3		•	5	18			AAMG	2					6†[1]						41†,O†[1],P
12	6	M8 *AC*	8	48	1.5-1.2†	9/43-45†	+1	2/1	+SR	•	4	36†[1]	L	ST	T37LL	2				4	4		C7†[2]		sP5†[3]		42†,C†[2],G,S†[3],W†[1]
	3	M8 HMC *SPA*	15.5	52	1.3-1.4†	9/43-45†	+1	6/3	−F	•	5	17		T	T75*	2					4		H9;C4[4+]†[1]	WP9			43†,C†[1],Y
	4	M7 HMC *SPA*	23	50	1.5-1.2†	11/42-45†	0	3/1	−F	•	7	14	L	NT	B105	1					4		H7;C7[F]†[1]	7;WP8			44†,C†[1],N
	2	M12 GMC *SPA*	27	40	1.6	6/44-5/45	0	4/1/★	−F	•†	9	13		NT	B155		9	•					AP6	WP8			45†,P
13	6	LVT(A)1 *aLT*	15	49	1.3	2-12/44	−2	1/0	+SR		6	12[3]	L†	ST	T37LL	1				4	8†[1]		C10[F]†[2]				46†[1],C†[2],G,H,P,T†
	6	LVT(A)4 *aLT*	18	53	1.4-1.2†	6/44-45	−2	2/0	+FSR	•	6	11[3]	†[1]	T	T75*	2			Opt2†[2]		4		H8;C7[F]†[3]	WP9			47†,C†[3],P,T†[1],X†[2]
	6	M4 DD *aMT*	31	74	1.3	6/44-5/45	−1	8/4	+SR		6	13[2]		T	T75	1†				4	4			5;WP7	5		48,G,P,R†
	6	LVT2 *aPC* +4	14	46	1.1-1.5†	11/43-6/45†	−1	★			6	13[3]	L†[1]		AAMG†[2]	2					14†[2]					24PP/T3	49†,D,H,Q†[2],T†[1]
14	6	LVT(A)2 *aAPC* +6	14.5	48	1.0-1.5†	2/44-6/45†	−1	1/0		•	7	12[3]	L†[1]		AAMG†[3]	2					14†[3]					19PP/T3	50†,D,H,Q†[3],T†[1]
	6	LVT4 *aAPC* +6	15	51	1.0-1.5†	6/44-6/45†	−1	1/0†		•	7	12[3]	L†[1]		AAMG†	2			Opt2†[2]		14†					39PP†	51†,D,H,T†[1],X†[2]
	5	DUKW *atr*	9	24	1.2	3/43-45†	−1	★			7†[1]	27*			AAMG	2					Opt 4†[2]					29PP	52†,D,O†[2],CC†[1]
	2	¼-Ton Jeep GPA *atr*	2	14	1.4	7/43-45	+2†	★			2	32[2]	L†[1]													9PP	53†,L†[1]
15	6	¼-Ton Jeep *tr*	1.5	15	1.5-.9†	41-45	+2	★			2†[1]	37[1]	L†[2]		AAMG	1 or 2					Opt2or4†[3]					9PP/T10	54†,L†[2],N,O†[3],CC†[1]
	6	¾-Ton *tr*	3.5	13	1.1-1.3†	40-45	+1	★			4	32[1]														10PP/T9	55†,N
	6	1½-Ton *tr*	5.5	16	1.0-1.3†	40-45	0	★			6	28[1]														21PP/T7	56†,N
	6	2½-Ton *tr*	7.5	20	1.2-.9†	41-45	0	★			7	28[1]														29PP/T5	57†,N
	4	7½-Ton *tr*	22	20	1.4-1.5†	41-45	−1	★			7	22[1]	H													29PP/T-4	58†,N



that the M24, while an excellent recon tank, was out of its league when confronting the T-34/85.

†Decrease RF by .1 for every month after 12/44, until 1.3 is reached in 3/45.



7. *M3 Medium Tank:* By mid 1940 the Army had come to the conclusion that its newest medium tank (the M2A1, which carried a 37mm gun and a multitude of MG, and which had not yet even entered mass production) was outclassed by the PzKpfw IV with its 75mm gun. What the Army now desired was a tank armed with a weapon at least equivalent to the German piece. The problem was that no turret capable of carrying such a powerful weapon had ever been built in the U.S., and the development of one would necessarily take time. Meanwhile, the British were in desperate need of new tanks to replace those lost in France. The Army therefore decided to modify the M2A1 and install both a turret-mounted version of the Army's 37mm AT gun, and a limited-traverse 75mm gun (which was an adaptation of an unsuccessful AA gun) on the starboard side of its front hull. The resulting M3 Medium was viewed only as a stopgap solution until a proper 75mm tank could become available—but with the added benefit that the automotive bugs corrected on the M3 would expedite the Sherman's development since both would use essentially the same chassis. Other versions of the basic M3 were also produced, but in much smaller quantities; since they vary little in game terms they are not included in counter form.

In all, 6,258 were built, but only about 1,400 were retained by the U.S.; the rest were Lend-Leased to various allies. In U.S. service the M3 first saw combat in mid-June 1942 during the latter stages of the Gazala battle when three with U.S. crews (who had been sent to help familiarize the British with their new tanks) attached themselves to the British 1st Royal Tank Regiment and for a few days fought the Germans between Knightsbridge and Acroma, southwest of Tobruk; during this time they claimed the destruction of nine enemy AFV. However, its first official U.S. use came with the Torch landings and later in Tunisia with the 2nd and 3rd Battalions of the 1st Armored Division's 13th Armored Regiment. These battalions were equipped solely with M3 types until Shermans from the 2nd Armored Division began arriving to replace combat losses. At the conclusion of the Tunisian campaign all M3 Mediums were relegated to training roles. In the PTO, their only U.S. use occurred in Nov. 1943 when the 193rd Tank Battalion aided in the seizure of Makin Atoll.

†B11 applies individually to both the 37LL MA and 75 SA. The 37LL MA is a T Gun, while the 75 SA is a NT Gun. Either the MA or SA can claim the possibility of multiple ROF, but only the one that fires *first* in a phase (treating Defensive First and Final Fire as one phase) can actually use it. Either the MA and SA both have Gyrostabilizer benefits or neither does; i.e., when using H1.42 one dr applies to both Guns.

†The AAMG was mounted in a turreted cupola. For game purposes it can be used as a normal AAMG or, while the crew is BU, like a remotely-controlled AAMG (i.e., while BU, it cannot be used vs an Aerial target but can be used in CC).

†Dates for North African use are 11/42-5/43. PTO Date is 11/43 only.



8. *M4 Medium Tank:* Popularly referred to as the Sherman, the M4 Medium series was designed to be used in the role of exploitation; i.e., to assist the infantry in breaking through the enemy's defenses and then to rapidly penetrate far behind his lines to disrupt his supplies and communications. It was well-suited to this role by being highly reliable and relatively maintenance-free, and by having a gun with excellent HE characteristics. However, since current Army doctrine held that enemy tanks were to be engaged by tank destroyers rather than tanks, it was deemed unnecessary to give the Sherman any special AT capability. The Sherman used the chassis of the M3 Medium with a new superstructure and turret for its MA, and by 1944 it had become the main battle tank of all the Western Allies. The chief deficiencies of the early Shermans were: the aforementioned mediocre AT capability; a high, bulky silhouette; the use, except in the M4A1, of a number of plates welded together (as opposed to a single rolled or cast piece) to form the sloping hull front (aka the glacis), which significantly compromised the glacis' ballistic protection; and a high susceptibility to fires due mainly to exposed ammo rounds which often ruptured when a projectile penetrated the tank. A total of 49,234 Shermans were built, of which 30,600 were equipped with the 75mm gun. Of these, 6,748 were the M4 type, (which was the original design model but actually entered production in July 1942, several months after the M4A1 and M4A2 versions). No M4 Mediums were built with the 76mm gun.

†PTO Dates are 1944-45.



9. *M4A1 Medium Tank:* This was the first Sherman model to enter production. It was also the only original model to have a cast upper hull; otherwise it was identical to the M4 except for carrying six fewer rounds of ammunition. 6,281 were built. The M4A1 was the only Sherman used by U.S. forces in North Africa. The game piece also represents 1,676 M4 Mediums built at the Detroit Tank Arsenal; these are often referred to as "composite hull" Shermans because their front hull was cast (like the M4A1) while their side and rear hulls were welded. In Army service throughout the war, a medium tank platoon consisted of five tanks.

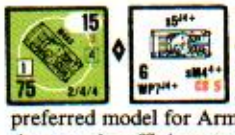
†Dates for North Africa and the ETO are 12/42-5/45, with RF of 1.4 in 12/42, 1.3 in 1/43, 1.2 for 2-5/43, and .9 thereafter. PTO Dates are 12/43-45, with RF of .9.



10. *M4A2 Medium Tank:* This Sherman model used two GMC diesel engines. 8,052 [including the M4A2 (L) model] were ultimately built, making this type the most numerous of the 75mm Shermans—but as the Army preferred gasoline powered vehicles most were assigned to Lend-Lease and only 640 were retained in U.S. service. The only U.S. combat use of the M4A2 was with the USMC, since many of the Navy's small craft were also diesel-powered and both could use the same fuel. The M4A2's operational debut was with Company C of the 1st Marine Amphibious Corps Tank Battalion in the assault on Betio (Tarawa Atoll). A Marine medium tank platoon comprised four Shermans prior to April 1944, three from then until April 1945 (with two bow-mounted FT also authorized), and five Shermans thereafter (with three FT Shermans per company).



11. *M4A2 (L) Medium Tank:* The final-production M4A2s in 1944 incorporated the new front hull design that was coming into use on all the Shermans (other than the M4 and M4A1). This new design replaced the multi-piece welded glacis with a thicker one-piece unit. Shermans with this glacis are generally described as having the 47° front hull, which refers to the glacis plate's inclination from the vertical. About 1,600 of the M4A2 (L) were constructed. "(L)" in the piece name indicates "late model".



12. *M4A3 Medium Tank:* The M4A3 differed from other early Shermans by having a Ford V8 engine. Due to this engine's high output, compact design, and ease of maintenance, the M4A3 became the preferred model for Army service; however, the original model's production was insufficient to supply the Army's entire needs and it remained a minority type. 1,690 were built.

†PTO Dates are 1944-45.



13. *M4A3(75)W Medium Tank:* Beginning in Feb. 1944 all newly-built models of the 75mm-armed M4A3 incorporated both the 47° glacis and a new arrangement for ammunition stowage wherein all MA rounds were now stowed on or beneath the turret floor in racks that contained jackets filled with antifreeze and water. Thus if a shellcase were ruptured by a projectile or fragment the liquid would douse any exposed propellant, extinguishing or at least hampering any resultant fire. This was known as "Wet Stowage", and cured the Sherman of its tendency to rapidly "brew up" when penetrated. The M4A3(75)W remained in production until March 1945, long after all other 75mm versions had been discontinued. 3,071 were built.

†PTO Dates are 10/44-45.



14. *M4A3E2 & M4A3E2 (L) Medium Tanks:* To provide a heavily armored assault tank, 254 M4A3(75)W were produced between May and July 1944 with an extra 1½ inches of armor plate on the hull front and upper hull sides, a new lower front hull casting 5½ inches thick, and a new turret with 6-inch cast armor and a 7-inch thick gunshield. All originally carried the 75mm gun but in early 1945 permission was granted to field-mount the 76mm weapon instead. As this conversion could be easily accomplished, the Dates for the 76mm version have been extended back into 1944 to allow for possible "unauthorized" conversions. The M4A3E2 was nicknamed the "Jumbo" and was a very successful variant, often being used as the lead

vehicle in a column when moving through unfriendly territory. Not surprisingly, it played a prominent role in the drive to relieve Bastogne. Apparently neither version was used in Italy.

†RF for the M4A3E2 (L) is 1.6 from 10/44 through 3/45, and 1.5 thereafter.



15. *M4A1(76)W Medium Tank:* Attempts had been made to upgun the Sherman with a high velocity 76mm gun as early as mid 1942 but the Army Ground Forces, which formulated Army tactical doctrines, would not allow its production. The AGF steadfastly believed that the current Sherman was an ideal balance of firepower, armor protection, and mobility, and did not want to disrupt production for a change it considered non-essential. Moreover, it held that tanks should be used for infantry support and exploitation, and that enemy tanks should be left to tank destroyers— which sounded fine in theory but which often proved impossible to comply with in battle. Eventually the 76mm-armed Sherman did go into production but the delayed decision, along with the reluctance of field commanders (including Patton) to introduce the new weapon on the very eve of the Normandy landings, resulted in none being included in the invasion forces. However, the first clashes with Panthers and Tigers revealed the relative impotence of the 75mm gun against these well-armored tanks. 76mm Shermans were therefore rushed across the Channel as quickly as possible with the initial intent of arming one-third of each Sherman unit with them, but by VE Day well over half the Shermans in U.S. units carried the more potent 76. Unfortunately even this gun proved to be only marginally effective against the frontal armor of a Panther or Tiger.

The M4A1(76)W was the initial production version of the 76mm Sherman. It consisted of a slightly-modified M4A1 hull and chassis with Wet Stowage and the turret of the T23 Medium Tank (a forerunner of the M26 Pershing). 3,426 were built.

†RF is 1.2 in 1944 and 1.1 in 1945.



16. *M4A3(76)W Medium Tank:* This used the hull and chassis of the M4A3(75)W as well as the new 76mm-armed turret. It was built in greater numbers than any other 76mm Sherman, with 4,542 being produced. Of these, more than half used the new HVSS (Horizontal Volute Spring Suspension) system to give the tank a better ride and lower ground pressure (though not low enough to qualify for low ground pressure in game terms). With HVSS this tank was designated the M4A3E8, from which arose its nickname "Easy Eight".

†RF is 1.1 through 10/44, 1.0 from 11/44 to 2/45, and .9 thereafter.



17. *M4(105) & M4A3(105) Medium Tanks:* The original design of the Sherman's 75mm gun turret allowed for the alternate installation of a 105mm howitzer. Production of the M4(105) amounted to 1641, with about half having the new HVSS system. M4A3(105) production totalled 3039, with all but about 500 having HVSS. The howitzer-armed Shermans had neither power traverse, gyrostabilizer, nor Wet Stowage (their ammo being kept in armored bins instead). Three of these tanks formed the basis of the assault gun platoon in the HQ company of an Army medium tank battalion, and one (two in 1945) was also present in the HQ platoon of each of that battalion's medium tank companies.

†ETO RF for the M4(105) is 1.4 in 1944 and 1.3 in 1945; that for the M4A3(105) is 1.3 in 1944 and 1.2 in 1945. PTO Dates and RF for both AFV are 10/44-45 and 1.3 respectively.



18. *M4 Tankdozer:* Aside from engineer field-built tankdozers, a special kit consisting of a dozer blade and associated components was developed for the Sherman. This kit was designated the M1, and 1,957 were produced by the end of the war. Tankdozers were usually operated by combat engineers and could also be found in Medium Tank Battalions (Special). Sixteen tankdozers using the M1 kit were assigned to the assault on Omaha Beach but only five landed still fit to be used as bulldozers. As of April 1944 each Marine medium tank company was authorized one M1 dozer kit. For tankdozer usage see "Bulldozers" in Index.

†Due to the extra protection afforded by the dozer blade, a special +2 To Hit DRM applies to the calculation of a *front-hull* hit vs a Tankdozer unless the firer is at least one full level higher than the target. This is signified by "+2 for HH" on the counter.

EX: If a Gun needs a Final DR of 10 to hit the front Target Facing of a Tankdozer, it will strike the hull only if the Final DR is ≤ 8 (and the colored die is ≥ the white die).



19. *T1E3:* This ungainly combination of Sherman and 27-ton roller mine exploder, nicknamed the "Aunt Jemima", was the Army's most widely used mine clearance vehicle. About 200 were built but it is doubtful that even half of them saw action. The "Mine Exploder, T1E3" consisted of a normal 75mm-gun Sherman with special drive sprockets that not only propelled the tank but also drove, via a system of roller chains and shafts, two groups of five pancake-shaped rollers that stood on edge ahead of the tank tracks. Each roller was eight feet in diameter, 2¾-in. thick, and weighed more than two tons, and their collective ground pressure would detonate any mines directly ahead of the tracks. Unfortunately, the mine rollers sank rapidly into soft ground and the vehicle had great difficulty in negotiating hills. To aid its movement the T1E3 had a curved plate attached to its hull rear, thus enabling it to be pushed by another tank when necessary. Two T1E3 were used to lead road columns of the 6th Armored Division in its attack south of Lessay on July 29, 1944; others were later used near Brest and in the Nancy-Metz area. Apparently none were used in Italy.

†*MOVEMENT:* The T1E3 may change its VCA only *one* hexside in a particular hex, and only immediately after entering that hex; i.e., when it expends MP to enter a new hex it may then expend another MP to change its VCA *one* hexside, but thereafter as long as it remains in that hex it cannot again change its VCA—nor can it change its VCA in a hex wherein it has just expended a Start MP. The T1E3 may not enter a building or woods, or rubble [EXC: via a TB], and may not ford a stream or river, conduct an OVR, or use VBM. Moreover, it may not move to a different elevation unless on a road. A T1E3 may cross a wall/hedge hexside; see "BOG:" below. A T1E3 may not cross a Bocage hexside, even via a Breach; nor may it create a Breach itself.

†*BOG:* A T1E3 crossing a wall/hedge hexside (not bocage) in either forward or reverse mode must make a Bog DR; if it bogs it remains in the hex it was attempting to *leave*. It must also make a Bog DR when it enters a Trench hex. A bogged T1E3 can attempt to free itself as per D8.3 only if another fully-tracked AFV of ≥ 25 tons is in the T1E3's Location to help push it. Both AFV must have coinciding VCA, and the pushing AFV is subject to all the rules given in D8.3 for an assisting AFV (i.e., one that grants a −1 drm to the colored die of the Bog Removal DR); however this −1 drm does *not* apply to the T1E3's unbogging attempt. Conversely, a T1E3 may not be used to grant such a −1 drm to another vehicle's unbogging attempt.

†*CLEARANCE:* A T1E3 clears mines like a flail tank (B28.7-.72), with the following exceptions. Each time a T1E3 enters a new hex, the player owning mines in that hex must announce their presence (but not type or strength). The T1E3's owner then makes his Mine Clearance DR, but there is a +2 DRM to that DR unless when entering that hex the T1E3 paid *twice* the normal MP cost *and* did not use the CE road movement cost. A Final Mine Clearance DR of 11 or ≥ 12 is treated as per B28.72 or B28.71 respectively. A T1E3 need not be, or remain, in Motion in order to attempt Mine Clearance, even in the last hex it enters during the MPh. If the T1E3 reveals the presence of mines while CE it must immediately become BU (even if not normally allowed to do so).

†*TO HIT:* Due to the obstruction caused by the mine rollers, all attacks [EXC: mines, CC, Indirect Fire, those to/from at least a full-level higher elevation, and those whose LOS to/from the T1E3 coincides with the center hexspine of its VCA] vs/by a T1E3 within its VCA receive a +4 TH (or Effects for non-ordnance) DRM—as signified by "VCA: +4 DRM" on the counter.



20. *Sherman Crab:* The U.S. and Britain experimented with a wide variety of roller, plow, and explosive-device mine clearance AFV, but none were as successful as the British-designed Sherman Crab, which used chains attached to a revolving drum to beat the ground ahead of the tank. This flailing action detonated any mines and, as the tank inched forward at 1¼ mph, cleared a path whose width equalled the vehicle's. A small number were used by U.S. forces in Europe. See B28.7-.72 for usage rules. The game piece also represents the experimental T3 Mine Exploder, twelve of which were used by the 6617th Mine Clearing Company during the breakout from Anzio (5/44) and the drive to Rome. The use of flail tanks in the PTO was restricted to a few field-improvised types.

†A flail tank can attempt to clear wire in a non-woods/non-building (only) Location by making a Mine Clearance DR. If that DR results in successful mine clearance (regardless of the presence of mines), that wire counter

is removed (along with any mines). All other possible results of that DR are still applicable. A flail tank that successfully clears wire by this method is not subject to a Bog DR due to that wire (B26.43); however, if the tank is unsuccessful and must undergo the Bog DR, B26.53 applies unchanged.

†If used in the PTO or pre-7/44 in Italy, a +1 DRM applies to the Mine Clearance DR, and the DR given in B28.7-.72 for each possible result is assumed to be a *Final* DR.

†Dates for ETO use are 5-6/44 (for the T3 version in Italy) and 7/44-5/45 (for the Crab). PTO Dates are also 7/44-45.



21. *POA-CWS-H1 Flame Tank:* The demand in the PTO for a more heavily armored tank with a main armament flamethrower resulted in the Ronson FT being mounted in a Sherman. The breech end of the tank's gun was replaced by the FT apparatus so the FT could fire through the 75mm gun barrel, thus making the FT version virtually indistinguishable from the original tank. (This camouflage was desired because flame tanks always became prime targets when identified by the enemy.) Eight POA using the M4A3(75)W chassis were used on Iwo Jima: four each with the 4th and 5th Marine Tank Battalions, first going into action on Feb. 21, 1945. Fifty-four "composite-hull" M4 Mediums were also converted to POA flame tanks and were designated the 713th Tank Battalion (Armored Flamethrower). They were sent to Okinawa where they were parceled out amongst the other attacking divisions, going into action on April 19, 1945. 41 were knocked out (with 26 subsequently repaired and returned to duty) with no crew fatalities—an exceptional record for a flame tank.

†The TCA may not traverse into or through the tank's "rear" VCA (as defined in U.S. Vehicle Note J). This is signified on the counter by "TCA:NA RVCA".

†Use an M4A1 or M4A2 (L) Medium Tank counter to represent the POA-CWS-H1 until the FT fires, or the M4A1's smoke mortar fires with a DR of 6-8, or the tank is destroyed (for CS purposes).

†Used only on Iwo Jima and Okinawa. RF is 1.4 from 4/45 on.



22. *M26 Heavy Tank:* The Pershing originated with the T20 Medium Tank, which was to be the eventual replacement for the Sherman with approximately the same firepower and armor protection as the Tiger I. Ultimately a prototype designated the T26E3 Medium Tank appeared in the spring of 1944 equipped with a 90mm gun derived from the AA piece. As a minor exercise in psychology it was then redesignated a Heavy Tank. The first shipment of twenty arrived in Europe as part of the Zebra Mission (which was to oversee the combat trials of a variety of new weapon types). The 3rd and 9th Armored Divisions each received ten T26E3, and these new tanks went into combat on Feb. 25 and Feb. 28 respectively. In March 1945 the T26E3 was standardized as the M26 Heavy Tank. Other units to use the M26 (from 4/45 on) were the 2nd, 5th, and 11th Armored Divisions. The most famous action involving Pershings was the capture on March 7, 1945, of the Ludendorff railway bridge across the Rhine at Remagen, in which four Pershings of Company A, 14th Tank Battalion, 9th Armored Division, played a leading role. Ironically, the Pershings never crossed the badly-damaged bridge as they were considered too heavy for it; instead they were ferried across the Rhine five days later. By VE Day over 700 Pershings had been built, of which 310 were in Europe (none were sent to Italy).The M26 Heavy Tank was also used in Korea (by which time it had once again been designated a Medium Tank), but the lighter and more agile M4A3(76)W was preferred in that rugged countryside.

‡RF is 1.5 after 3/45.



23. *M10 GMC:* Designed to give the Army's Tank Destroyer Command a turreted and fully-tracked AFV to replace the M3 GMC Halftrack, the M10 Gun Motor Carriage used the basic chassis and drive train of the M4A2 Medium Tank; the hull, however, was completely redesigned using thinner but well-sloped armor to decrease weight and thus enhance mobility, and its pentagonal turret was open-topped to increase visibility. Its main armament was a modified 3-in. AA gun which was massive and heavy; consequently two 1800-lb. counterweights had to be attached to the rear of the M10's turret to balance it. Other features unusual for a U.S. "tank" were its lack of power traverse and the use of twin diesel engines. 4,993 were built. The M10 GMC equipped the 899th and 776th TD Battalions (Heavy SP) in Tunisia, with four per platoon; after that campaign it became the standard AFV of all Tank Destroyer Battalions (SP) in the ETO until the latter half of 1944 when the M18 and M36 GMC began to replace it. In the PTO only three M10-equipped TD Battalions (or elements thereof) saw action: the 632nd, 640th, and 819th. A few were also used on Kwajalein by the 767th Tank Battalion. From late 1943 through 1945 a U.S. TD platoon (SP) consisted of four TD, two M20 (or M3A1) Scout Cars, and one Jeep.

†ETO RF is as follows: 1.5 for 3-8/43; 1.3 for 9/43-5/44; 1.1 for 6-8/44; 1.2 for 9-12/44; and 1.3 in 1945. PTO RF is 1.3, with Dates of 10/43-45.



24. *M18 GMC:* The M18 (nicknamed the "Hellcat") was a completely new TD design, and was intended to be as light and fast as possible. Thus it had only half-inch armor front, sides, and rear (with a 1-in. thick gunshield), and instead of using the heavy gun of the M10 it used the lighter 76mm weapon of the Sherman. The M18's low weight gave it a high degree of mobility which, it was believed, would compensate for its thin armor. Indeed, it proved to be the fastest tracked vehicle of WW2, and was well-liked by its crews since its mobility allowed rapid changes of position during an engagement. Overall the M18 came closest to the Tank Destroyer Board's original concept of the true TD. 2,507 were built. The M18 was the intended replacement for the M10 GMC and could have been in combat by the end of 1943, but its deployment was withheld because commanders in the ETO preferred to wait for the more-heavily-armed M36 GMC which was itself nearing the production phase in late 1943. No M18-equipped TD battalions served in Italy, but some M18 were used there in 1945 by the 752nd Tank Battalion. In the PTO only one M18 TD battalion saw combat; this was the 637th, which fought on Luzon.

†Decrease ETO RF by .1 for each two-month period after 8/44, until 1.2 is reached in 3/45 [EXC: Dates and RF for use in Italy are 1945 and 1.5 respectively]. PTO Dates and RF are 1-6/45 and 1.4.



25. *M36 GMC:* The M36 Gun Motor Carriage was basically an M10A1 GMC (an M4A3 Medium with an M10 GMC turret; none saw combat) with a new turret and a 90mm gun derived from the M1 towed AA weapon. 1,413 were built. Because of its potent gun the M36 was the most successful of the three main U.S. TD. Like the others however, it was all too often expected to double as a tank—a task for which it was not well suited due to its thinner armor, weak MG FP, and open top. The realization that TD were not as adaptable as tanks to the various demands of the battlefield resulted in the demise of the TD Command in 1946. The M36 GMC was sometimes referred to as the "Jackson" or the "Slugger". Apparently none were used in Italy.

†RF is 1.6 in 8/44, 1.5 in 9/44, 1.3 for 10-11/44, and 1.1 thereafter.



26. *M36B1 GMC:* The continuing demand for 90mm Gun Motor Carriages resulted in a composite vehicle which consisted of an M36 GMC turret on an M4A3(75)W Medium Tank. This TD was taller and heavier than the M36 but retained the BMG and thicker hull armor of the Sherman. A total of 187 were built in late 1944. Apparently none were used in Italy.



27. *M2 Halftrack:* The M2 Halftrack was intended to be used as a recon vehicle (it replaced the M3A1 Scout Car in certain mechanized cavalry roles during 1943), mortar or MG carrier, and artillery prime mover. It could seat ten including the driver, and its armament officially consisted of two MG: one .50-cal and one air-cooled .30-cal, with both mounted on a skate rail that ringed the passenger compartment to allow them a form of 360° traverse. (Other MG combinations existed as field modifications but have been excluded for simplicity.) M2 production totalled 11,415 vehicles. 1,643 M2A1 halftracks were also built during 1943-44; these replaced the skate rail with a pulpit mount (as in the M3A1 halftrack) but are not included in the game. Since the M3 halftrack was larger and proved to be more versatile, the M2 types became less common towards the war's end.

† Dates for non-PTO use are 11/42-5/45, with RF of 1.1 for 11/42-43 and 1.2 thereafter. PTO RF is 1.3 for 41-45.



28. *M3 Halftrack:* The primary function of this halftrack was to carry the infantry of the armored divisions. It was slightly longer than the M2 and could seat thirteen including the driver. Its single .30-cal air-cooled MG was pedestal-mounted in the center-foward section

of the passenger compartment. 12,499 were built. Compared to their German counterparts, U.S. halftracks had superior overall mobility by virtue of their higher top speed, driven front axles, and front bumper-mounted roller (to help prevent digging into the side of a ditch or steep incline) or winch. On the other hand, U.S. halftracks had no floor armor (thus making their occupants vulnerable to mines), higher ground pressure, and tracks that tended to wear out quickly. In game terms a 1942-43 armored infantry platoon consisted of three M3, one M2, and one M3(MMG) halftrack; three M3 with one passenger squad each (and one 60mm MTR in one of the halftracks), one M2 towing a 37mm AT Gun and carrying its crew, and one M3(MMG) for MG support.

†MA is a MMG for To Kill and Removal purposes—as signified by "MA: MMG" on the counter.

†Dates and RF for non-PTO use are 11/42-5/45 and 1.0. PTO RF is 1.3 for 41-45.

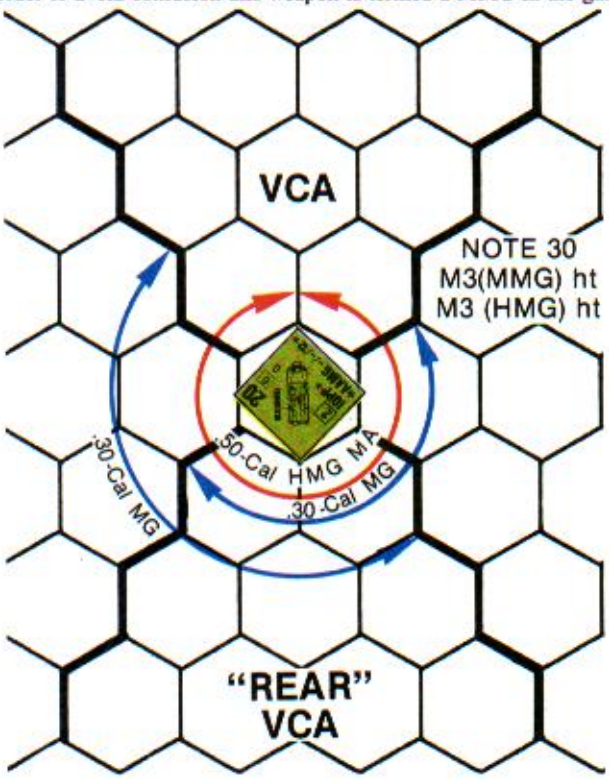


29. *M3A1 Halftrack:* This differed from the M3 Halftrack by having a .50-cal MG on a ring mount (also commonly known as a "pulpit") to the right of the driver, and an air-cooled .30-cal MG on one of three pintle mounts that were located on the side and rear walls of the passenger compartment. 2,862 M3A1 were built. Many M3 halftracks were also converted to M3A1 by the addition of a pulpit kit. Versions with additional MG were quite common but are not included in the game. In game terms a 1944-45 armored infantry platoon consisted of one M3A1 halftrack carrying the platoon leader and a squad, two M3 halftracks with a passenger squad apiece, one M3 with a passenger HS and a 60mm MTR, and one M3(MMG) halftrack. Such a platoon possessed tremendous firepower for an "infantry" unit (even with just its official weapons allotment), but it should be noted that the squads usually dismounted before attacking because their halftracks were vulnerable to the lightest of AT weapons and even close-range MG fire. In fact, halftracks were sometimes referred to as "Purple Heart Boxes".

†Non-PTO RF is 1.2. PTO RF is 1.4.



30. *M3(MMG) & M3(HMG) Halftracks:* The M3(MMG) Halftrack represents the vehicle used to provide MG support for the armored infantry platoon, with one M3(MMG) per such platoon. The squad carried in this vehicle was historically referred to as a LMG squad since the Army called its air-cooled .30-cal a LMG, but in order to avoid confusion this weapon is termed a MMG in the game.



The M3(HMG) represents the vehicle used in the armored infantry battalion's MG platoon, which consisted of three such vehicles. While the armament of these vehicles could vary considerably, for game purposes the M3(MMG) is assumed to carry one .50-cal MG along with two air-cooled .30-cal MG while the M3(HMG) is assumed to carry one .50-cal MG and two water-cooled .30-cal MG. Neither of these halftracks were used in these roles in the PTO, since no armored infantry was employed there.

†This halftrack starts each scenario with an Inherent crew, and also with a 6-6-6 (or as otherwise specified by SSR) squad, or that squad's two HS (owner's option of squad or HS), as a Passenger that applies to the vehicle's PP capacity (D6.1).

†The AAMG FP actually consists of three MG: one .50-cal HMG (MA; 4 FP), and two secondary .30-cal MG [each a 4 FP MMG in the M3(MMG), or each a 6 FP HMG in the M3(HMG)]. This is signified on the counter by "4MA&[red]4&[red]4" for the M3(MMG), and by "4MA&[red]6&[red]6" for the M3(HMG). The MA .50-cal AAMG may fire normally in any direction. However, neither of the two secondary .30-cal AAMG may fire at a target that lies within the halftrack's VCA. One secondary AAMG may fire at a target that lies either to one "side" of the halftrack or within its "rear" VCA, while the other secondary AAMG may fire in like manner to either the halftrack's "other side" or within its "rear" VCA. See the accompanying diagram and U.S. Vehicle Note E.



31. *M4 MC Halftrack:* The M4 Mortar Carrier was based on the M2 Halftrack and arose from the desire to increase the mobility of the medium mortar and its crew in mechanized units. Unfortunately, since it was assumed that the mortar would always be dismounted before being fired, the mounting faced to the rear and had an extremely limited traverse. 572 were built. A platoon of three was included in the HQ company of an Army tank battalion and armored infantry battalion. It was apparently not used in the PTO.

†The mortar suffers an extra +1 TH DRM to all fire at a moving/Motion target. This is signified by a white dot on the counter beside the MA designation. See U.S. Vehicle Notes J and M.

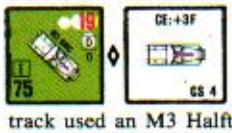


32. *M4A1 MC Halftrack:* This was a redesign of the M4 Mortar Carrier. In it the mortar still faced to the rear, but was provided with increased traverse and a reinforced mount to absorb the shock of recoil when firing. For this reason the M4A1 MC is treated as a normal NT AFV [EXC: see U.S. Vehicle Note J]. Some 600 were built.

†RF is 1.5 prior to 1944. PTO Dates are 44-45.



33. *M21 MC Halftrack:* While the "rear-fire only" characteristic of the halftrack mortar carriers enabled them to make a rapid withdrawal from an untenable position, it also meant that they took longer to get into firing position—which made them unpopular with their crews when going into action under fire. Consequently the M21 Mortar Carrier, based on the M3 Halftrack, was designed with a forward-facing mortar. 110 were built, of which 54 were ultimately used by the Free French. In addition, some units (e.g., the 2nd Armored Division) modified their old M4 and M4A1 MC so that they fired forward. Apparently none were used in the PTO.



34. *M3 GMC Halftrack:* This vehicle resulted from an urgent requirement to have some form of tank destroyer available until the M10 GMC could enter service. The M3 Gun Motor Carriage Halftrack used an M3 Halftrack modified to carry an M1897A4 field gun. Production began in late 1941, and in December of that year 50 arrived in the Philippines where they were used as SP artillery until the fall of Bataan. Altogether 2,202 were built, but 1,360 were later converted to M3A1 Halftracks. In the PTO the M3 GMC was used successfully by the USMC (who often referred to it as the "SPM" [Self-Propelled Mount]) until the war's end, with each infantry regiment in a Marine division having a platoon of two (four after April 1944) in its weapons company, and until that same date the divisional Special Weapons battalion also had three such platoons. The M3 GMC was the only type of halftrack employed in Marine divisions. In Tunisia the M3 GMC was used in the 601st, 701st, 805th, 813th, and 894th TD Battalions (Heavy SP), with four per platoon. They met with mixed success in that campaign; their thin armor caused many to be knocked out, but when properly used in ambushes from HD

positions they were effective vs Axis armor. M3 GMC were also used in Sicily by the 601st TD Battalion.

†Optional AAMG is available only for USMC use, is a .50-cal HMG, and has a 1.0 RF.

†Dates for non-PTO use are 11/42-8/43, with RF of 1.2 through 5/43 and 1.4 thereafter. Dates and RF for Army PTO use are 12/41-4/42 and 1.4; for Marine PTO use they are 8/42-6/45 and 1.3.



35. *T30 HMC Halftrack:* The T30 Howitzer Motor Carriage was an expediency, designed to provide a self-propelled close-support AFV. It was usually referred to as an assault gun, and consisted of an M3 Halftrack carrying a 75mm pack howitzer. 500 were built. A platoon of three was allotted to the HQ company of each Army tank battalion and armored infantry battalion, and a platoon was also included in the armored regiment's recon company. In addition, the infantry regiments initially used in the Mediterranean area included two such platoons in their cannon company. The T30 HMC fought only in North Africa, Sicily, and Italy.

†RF is 1.1 through 8/43; thereafter increase it by .1 for each month until 1.5 is reached in 12/43.



36. *T19 HMC Halftrack:* This was simply a 105mm howitzer mounted on an M3 Halftrack. 324 were hastily built in early 1942. Only eight rounds of ammo were carried aboard the vehicle; hence it towed an ammo trailer. The T19 equipped the armored field artillery battalions of the 1st and 2nd Armored Divisions (with six per battery), and two were included in the cannon company of infantry regiments initially used in the Mediterranean area. Those in armored field artillery battalions were gradually replaced by the new and far-superior M7 HMC during the Tunisian campaign, while those in regimental cannon companies were eventually superseded by the M3 105mm howitzer.

†This halftrack is assumed to be towing an armored (0/0 AF) ammo trailer which, by its owner's announcement, can be unhooked at the start of its MPh if it is not in Motion and its crew is CE. Unhooking is accomplished by simply flipping the counter over to the side showing no trailer. Its MP allotment is thus increased to 19 (although the act of unhooking the trailer costs the vehicle one-fourth of this new MP allotment), while its WGT becomes 9 and its B# becomes ⑨. The trailer is always assumed to be hooked up at the start of a scenario, and an unhooked trailer cannot be hooked up again. A hooked-up trailer is otherwise treated as per C10.4-.41. If the halftrack is destroyed, replace it with the wreck counter of another halftrack that has the same MG armament.

†RF is 1.2 through 6/43; thereafter increase it by .1 for each two-month period until 1.5 is reached in 11/43.



37. *M15A1 MGMC Halftrack:* This vehicle consisted of an M3 Halftrack altered to carry a 37mm AA gun and two coaxial .50-cal MG, with armor plates around the front and sides of the gun to provide crew protection. The first 80 were designated T28E1 and sent to Tunisia where they were highly successful in the AA role. Their crews found that they could lure an enemy aircraft to its destruction by opening fire at long range with just the .50-cals; the enemy pilot would note the trajectory of the tracers and assume he could fly closer at no risk—but if he did the 37mm gun would then open fire with an increased chance of a hit. The T28E1 was standardized in 1943 as the M15 Multiple Gun Motor Carriage, and at this time the armor plates around the gun mount were added. The main production model was the M15A1, which differed from the M15 only in how the MA and CMG were mounted. Production of all versions amounted to 2,332 vehicles. Those used in Tunisia were assigned to TD battalions (Heavy SP), with six vehicles per battery. Later in 1943 they were removed from TD battalions and placed in various types of AAA [Anti-Aircraft Artillery] Automatic Weapons battalions, which were usually either attached to divisions or directly controlled at Army level. At the same time the size of an AA halftrack battery was reduced to four such vehicles.

†The *turret's* rear Target Facing is unarmored. However, in North African scenarios the *vehicle's* entire side and rear Target Facings (both hull and turret) are treated as unarmored.

†Normal range of the CMG is 16 hexes—as signified on the counter by "Nml Rng: 16".

†PTO Dates and RF are 1945 and 1.5.



38. *M16 MGMC Halftrack:* This was an M3 Halftrack carrying four .50-cal MG mounted coaxially on an electrically-powered Maxson turret. With a maximum rate of fire of 2,200 rounds per minute and a traverse rate of 60° per second it proved to be very deadly against low-flying aircraft, and was also a devastating weapon when used for ground support; hence its nickname of "meat chopper". The M16 MGMC was used in AAA Automatic Weapons battalions in the same manner as the M15A1 MGMC, with the AA halftracks in these battalions ideally having a 50/50 mix of the two types.

†Due to the height of the gun mount, the crew's CE DRM is only +1 when being fired on through the *turret's* side/rear Target Facing—as signified by "CE:+1SRT" on the counter.

†Make four To Kill DR when using the 12.7 column of the AP To Kill Table; only one DR (firer's choice) is used.

†Maximum range for To Hit purposes (A9.61) is 16 hexes—as signified by "[16]TH" on the counter.

†ETO Dates and RF are 44-5/45 and 1.3 [EXC: 1.4 RF in Italy]. PTO Dates and RF are 1945 and 1.5.



39. *M3A1 Scout Car:* This vehicle was used primarily for scouting, screening, and security. Most were found in the mechanized cavalry recon troops of infantry, and armored divisions—usually in platoons of three or four vehicles each. Others were used in TD battalions and the scout company of Marine light tank battalions—in both cases, in sections of two vehicles each. Almost 21,000 M3A1 Scout Cars were built, and were one of the first U.S. vehicles to be Lend-Leased (in which role they were still being used in 1945). Some were still being used by the U.S. 1st Army in Europe as late as 10/44—probably as commanders' vehicles.

†Each M3A1 Scout Car starts the scenario with an inherent crew, and also with either a 3-3-6 (or as otherwise specified by SSR) HS or a 2-2-7 crew (owner's choice of HS or crew) as a Passenger that applies to the vehicle's PP capacity (D6.1). This vehicle can retain any unpossessed SW aboard it (D6.4), and its crew may Remove its MG armament (D6.631).

†RF is 1.2 through 8/43; 1.3 for 9-12/43; and 1.5 thereafter.



40. *M20 Scout Car:* Known officially as the Armored Utility Car M20, this vehicle was derived from the M8 Armored Car by replacing the turret with a ring-mounted .50-cal MG and rearranging the interior to create a cargo/passenger compartment. The requirement for such a vehicle came from the Tank Destroyer Force who wished to replace their obsolete M3A1 Scout Cars; thus most M20 were used in TD battalions for command, scouting, and cargo-carrying purposes. 3,791 were built. In 1944-45 each TD platoon (SP), in addition to four Gun Motor Carriages and a Jeep, also contained two M20 Scout Cars that conducted local reconnaissance for the platoon and afforded it extra protection against close assaults by enemy infantry.

†PTO Dates are 5/44-45.



41. *T8 Reconnaissance Vehicle:* As the M24 Light Tank entered service with combat units, a number of redundant M5A1 Light Tanks had their turrets removed and replaced by a .50-cal MG on a ring-mount. The modified vehicles were then used as fully-tracked "scout cars" in various recon units operating in NW Europe.

†The Scout Car designation is given only in deference to the T8's historical use. For all game purposes it is treated as fully-tracked.



42. *M8 Armored Car:* Although originally designed as a light TD, the M8 Light Armored Car replaced both the M3A1 Scout Car and M2 Halftrack as the primary AFV in mechanized cavalry units. The M8's light weight and 6x6 drive gave it excellent speed and cross-country mobility, making it well-liked by its crews despite being rather thin-skinned and undergunned when confronting serious opposition. 8,523 were built. From late 1943, each mechanized cavalry recon platoon was authorized one section of three M8, while each TD battalion was authorized 2-6 M8; see U.S. Vehicle Note 54 for more details.

†Decrease ETO RF by .1 for each two-month period after 10/43, until 1.2 is reached in 3/44. PTO Dates and RF are 5/44-45 and 1.4.



43. *M8 HMC:* This AFV (sometimes called the "Scott") was often referred to as an assault gun and was used for both direct and indirect close support. It consisted of a modified M5 Light Tank with a new turret that mounted a modified pack howitzer. 1,778 were built. Each divisional mechanized cavalry recon squadron had a troop of eight M8 HMC in four platoons of two each (three platoons if a nondivisional squadron), and the HQ company of armored infantry battalions and Army light and medium tank battalions had an assault gun platoon of three, replacing their old T30 HMC Halftracks. Those M8 in medium tank battalions were replaced by 105mm Shermans as the latter became available.

†PTO Dates and RF are 1944-45 and 1.4.



44. *M7 HMC:* The requirement for a self-propelled howitzer with mobility equal to that of the tanks it would support was met by modifying the M3 Medium Tank to carry a 105mm howitzer in an open-top non-turreted fighting compartment. It was standardized as the M7 Howitzer Motor Carriage, and 3,490 were built. Another 826 were built based on the M4A3 Medium Tank and designated the M7B1 HMC; for simplicity this version is not included in the game. The M7 HMC first saw combat with U.S. forces in Tunisia, where as the opportunity arose it replaced the T19 HMC Halftrack in the armored field artillery battalions of the 1st Armored Division. Thereafter it became the standard equipment of all armored field artillery battalions, with six per battery. Some sources state that the HQ company of an armored infantry battalion contained an assault gun platoon of three M7 HMC (instead of M8 HMC), but this is not reflected in the 9/43 Table of Organization for that battalion. In the PTO, six M7 HMC formed the cannon company of at least some Army infantry regiments that fought in the Philippines and on Okinawa, while the regimental weapons company of a Marine division was authorized a platoon of four M7 in May 1945. The British called the M7 the "Priest" because of the pulpit-like appearance of its .50-cal AAMG mount.

†RF for use in other than the PTO is 1.5 for 11/42-5/43, and 1.3 thereafter. PTO Dates and RF are 10/44-45 and 1.2.

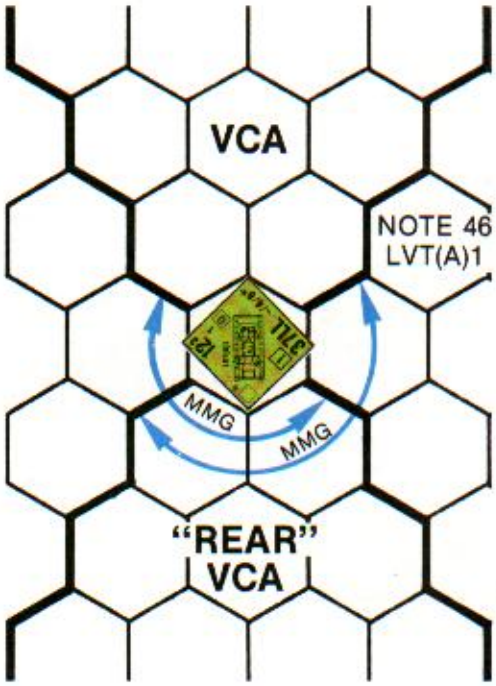


45. *M12 GMC:* This was an M1917 or M1918-type 155mm gun on a much-modified M3 Medium Tank chassis, with a retractable spade at the rear to help absorb the gun's recoil. 100 were built and remained in the U.S. until 1944 when 74 were sent to Normandy between June and August with the nondivisional 174th, 258th, 557th, 558th, 987th, and 991st Field Artillery Battalions (SP). They proved particularly valuable after the Normandy breakout by often being the only heavy artillery that could keep pace with the rapid advance across France while still being able to provide support at short notice. The M12 GMC was sometimes referred to as the "King Kong", and was used in batteries of four.

†Due to the M12's configuration most of the crew actually stood outside of and behind it while serving the gun. Therefore, one side of the counter shows the AFV "limbered" while the other side shows it "unlimbered". To change modes the counter is flipped over during any friendly PFPh/DFPh, provided its inherent crew is not stunned, shocked, pinned, or broken, and neither the crew nor the MA has fired; both the crew and AFV then become TI. The MA may not fire while "limbered". While the M12 is "unlimbered" it may not expend MP, it is treated as an RFNM Gun (C10.25) for To Hit purposes, and its crew is always CE as per D6.84 (but with only a +1 CE DRM [0 DRM if attacked through its unarmored Target Facing; D5.311])—as signified by "CE:+1" on the counter.



46. *LVT(A)1:* After the near-disaster at Tarawa, it was decided that in future assault landings the initial wave would need an armored type of LVT, plus amphibious tanks for close support. This resulted in the LVT(A)2 (see U.S. Vehicle Note 50), and also the LVT(A)1 which consisted of an LVT(A)2 with its cargo compartment roofed-over to carry a turret derived from that on the M5A1 Light Tank. In addition, on both sides of the turret and aft of it was a scarf-mounted .30-cal MG operated by a gunner who stood through a hole in the roof. 509 were built, and their first combat use was in the Kwajalein Atoll landings with the Army's 708th Amphibian Tank Battalion and the Marines' 1st Armored Amphibian Battalion. An LVT(A)1 or (A)4 platoon consisted of five vehicles (of one or both types), although in action there were usually six since one of the three company HQ LVT(A)1/(A)4s accompanied the platoon. "LVT" stands for "Landing Vehicle, Tracked", while "(A)" indicates that it was constructed using armor plate (rather than soft steel).



†The AAMG FP actually consists of two 4 FP MMG, neither of which may fire within the LVT's VCA [EXC: during CC]. These are signified by "4&4;NA VCA" on the counter. One AAMG may fire at a target that lies either to one "side" of the LVT or within its "rear" VCA, while the other AAMG may fire in like manner to either its "other side" or within its "rear" VCA. See the accompanying diagram and U.S. Vehicle Note H.



47. *LVT(A)4:* The inability of the LVT(A)1 to deal with heavily fortified positions led to the development of another amphibious tank based on the LVT(A)2 but having greater HE firepower. The LVT(A)4 differed from the (A)1 by carrying the turret of the M8 HMC and not having scarf-mounted MG positions. Unfortunately, its OT turret and weaker MG FP made it more vulnerable to Japanese close assault tactics, so extra MG began to appear on it almost immediately after its introduction. 1,890 LVT(A)4 were built, and their first combat use was at Saipan. Despite its "Tank" designation, the LVT(A)4 was intended to be used as an assault gun and SP artillery piece, and had been armed with a howitzer specifically for such a dual direct/indirect fire role.

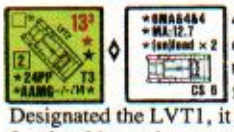
†RF is 1.4 prior to 1945.



48. *M4 DD Medium Tank:* The basic principles of the DD system are given in footnote D13. To go into more detail, the waterproof canvas screen was attached to steel decking that had been welded on around the tank's hull at the fender line, and was erected by using compressed air to inflate rubber air tubes attached to the decking and the frame of the screen. After the screen had been raised, hinged struts were locked into place to keep it rigid. Erecting and securing the screen took about fifteen minutes, and care had to be taken when moving the tank so as to not tear the screen by hitting a tree limb, etc. Steering was effected by the tank commander who stood on a platform attached to the rear of the turret and controlled a tiller that angled the propellers. Once ashore, the screen was dropped by the driver's actuating hydraulic plungers which unlocked the struts and opened the air valves. One slight drawback to the DD system was that the screen's frame blocked the line of fire from the BMG until the screen was removed. While afloat the DD tank itself was not visible from the ground due to the screen, and drew relatively little fire from the enemy who thought it just a small boat.

During the Normandy landings DD Shermans were used by three U.S. tank battalions: the 70th (30 launched, of which one sank) on Utah Beach, and the 741st (29 launched, of which 27 sank; 3 ship-landed on the beach) and 743rd (32 ship-landed) on Omaha Beach. The intention was to have them land several minutes before the infantry so as to provide covering fire but, due to rough seas and the general confusion of the day, those

that made it ashore arrived late. DD Shermans were also used in the Anvil landings in southern France (8/44) and in several river-crossing operations in NW Europe (including the assault across the Rhine in March 1945).



49. *LVT2:* The LVT (Landing Vehicle, Tracked) derived from an amphibious rescue vehicle called the Alligator, whose tracks were specially configured to propel it in water as well as on land. Designated the LVT1, it was unarmored since it was to be primarily used for the ship-to-shore movement of supplies. (For this reason it is not included in the game.) The great advantage of the LVT was that, in the PTO where many islands are surrounded by coral reefs that block the passage of boats, it could simply drive across the reef and continue shoreward. It also excelled in crossing soft or muddy ground. On the other hand, the LVT—and especially its delicate tracks—proved to be somewhat unreliable; in fact it was generally accepted that each hour of operation necessitated two hours of maintenance. The LVT1 and LVT2 also had another drawback in that only light cargo items could be carried since they had to be lifted over the vehicle's side to be unloaded. However, in spite of these deficiencies the LVT was one of the most important tactical innovations of WW2 and proved indispensable in PTO amphibious landings. Total production of the unarmored LVT2 was 2,963 vehicles, and it first saw combat during the Betio landings in the Tarawa Atoll. Beginning in July 1942, each Marine division was authorized an amphibian tractor battalion—within which a platoon comprised nine LVT (increased to ten in April 1943).

†RF in the PTO is 1.1 through 3/44, 1.2 for 4-5/44, 1.3 for 6-9/44, 1.4 for 10-12/44, and 1.5 for 1-6/45. ETO Dates and RF are 1-5/45 and 1.5.



50. *LVT(A)2:* The armored version of the LVT was requested by the Army and was designated LVT(A)2. 450 were built; in addition, many unarmored LVT2 were modified into LVT(A)2 by the use of bolt-on armor kits. Unfortunately, the extra weight ensuing from the use of armor decreased the LVT(A)2's payload capacity. The LVT(A)2 first entered combat in the Kwajalein Atoll landings with the Army's Provisional Amphibian Tractor Battalion.

†RF in the PTO is 1.1 for 2-3/44, 1.0 for 4-12/44, 1.2 for 1-3/45, and 1.3 for 4-6/45. Dates and RF for use in the ETO are 1-5/45 and 1.5.



51. *LVT4:* To increase the carrying capacity of the LVT2, two new models were designed in 1943. The first to be used in combat was the LVT4, which had the engine moved forward from the stern to behind the driver's cab so that a manually operated ramp could be incorporated at the stern. This ramp allowed quick on- and off-loading, and even enabled the LVT4 to carry a small vehicle. (The LVT3, also known as the Bushmaster, was not used operationally until the landings on Okinawa in April 1945 and is equivalent to the LVT4 in most game terms, so has not been included in the game.) As originally built, the LVT4 was armored only on the cab and ramp but most were modified by the use of bolt-on armor kits and so are treated as AFV in the game. 8,348 LVT4 were built, making them the most numerous LVT type during WW2. They first saw action during the Saipan landings. The LVT2 and (A)2 were nicknamed "Water Buffalo", while all LVT were referred to generically as "amtracs" (amphibious tractors) or "alligators". More than 18,600 LVT of all types were produced during WW2.

†The AAMG FP actually consists of three AAMG: one .50-cal HMG (MA; 6 FP), and two secondary .30-cal MMG (4 FP each). This is signified by "MA:12.7" and "6MA&4&4" on the counter. The MA AAMG may fire only at a target that lies within the VCA, but the secondary AA-MMG may *not* fire thusly within the VCA [EXC to both: during CC]. One secondary AA-MMG may fire at a target that lies between one border of the VCA and the hexspine-defined centerline of the "rear" VCA, while the other secondary AA-MMG may fire in like fashion but only on the "other side" of the LVT. See the accompanying diagram and U.S. Vehicle Note H.

†PTO RF is 1.4 for 6-9/44, 1.2 for 10-12/44, and 1.0 for 1-6/45. ETO Dates and RF are 1-5/45 and 1.5.

†*PASSENGERS:* The ramp on the LVT4 enabled it to carry a vehicle/Gun as well as Personnel, making special rules necessary for their transport. Such a Passenger-Gun/vehicle (including the latter's PRC) may not attack in any way. An LVT4 must be CE to (un)load any type of Passenger(s). In addition, if an LVT4 has (un)loaded any Passenger(s) during the current MPh, its rear Target Facing is treated as *unarmored* vs all Defensive *First* Fire attacks that can affect it through that Target Facing.

PP CAPACITY: The LVT4 may transport any combination of the following items, with the total indicated PP applying to the LVT's PP Capacity (D6.1).

Item	PP Cost
• Vehicle of ≤ 2 tons	15
• Vehicle of > 2 but ≤ 4 tons	30
• Non-MTR Gun with M# of ≥ 10	10
• Gun with M# of 6-9	20
• MTR of 76-107mm	0
• Ammunition	4 or 8[1,3]
• Inherent vehicle crew	0
• All other Personnel/SW	normal[2,3]

[1]: As per C10.13 (i.e., 4 PP for a Gun of ≤ 99mm, or 8 PP for one ≥ 100mm). This applicable PP cost is also used for a dm 76-82mm MTR, as well as for a 107mm mortar.

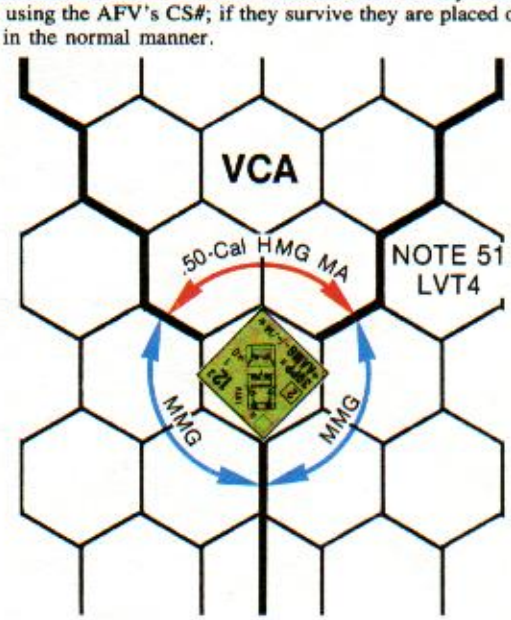
[2]: As per their normal Passenger/Rider PP cost.

[3]: EXC: the PP cost of units/SW/ammo are reduced to zero if they are *Passengers* of a vehicle that is itself a Passenger.

VEHICLE: Unloading a Passenger vehicle consists of driving it off the LVT4 into the LVT's Location at a cost of one MP for starting, plus one-fourth of the Passenger vehicle's MP allotment, plus COT. There is no MP cost for entering the LVT's Location (D2.14), but Overstacking will apply. Loading is the reverse of this procedure; i.e., the vehicle first enters the LVT's Location if necessary (paying one extra MP; D2.14), and then expends one-fourth of its MP allotment plus one MP for COT to load onto it, plus one MP to stop. Otherwise, the normal principles of D6.4-.5 for (un)loading Passengers apply, including the "simultaneous expenditure" of each 25%-segment of movement allotment by both the Passenger vehicle and the LVT4 during the turn of (un)loading. An allowed vehicle can (un)load while towing a Gun (unless using Reverse movement; C10.1) by paying the extra MP for towing. A Passenger vehicle or Gun may not change its CA relative to that of its LVT. Since the LVT4's ramp is at its rear, a vehicle's VCA must coincide with the LVT's VCA (or "rear" VCA) so that the vehicle is properly aligned for forward or reverse entry/exit onto/from the LVT. Overstacking does not occur due to a vehicle's being a Passenger on an LVT4. A vehicle that is also a Passenger cannot claim or retain Motion status independently of the LVT4.

GUN: (Un)loading an *unhooked* Gun from/onto an LVT4 follows the same procedure as (un)hooking it from/to a towing vehicle (C10.11 & .2). A Gun may be (un)hooked from/to an allowable vehicle while both are Passengers on the LVT (any resulting TI status does not apply to the LVT).

SURVIVAL: If an LVT4 is destroyed (but does not burn) *while on land*, all unarmored vehicles and Guns aboard it are also destroyed; *all* vehicular PRC roll for survival using the *LVT's* CS#. If an AFV is aboard such a destroyed LVT4, repeat the original attack, using its Original DR but now vs the AFV and adding an extra +2 TH (or IFT for non-ordnance) DRM as well as all other DRM applicable to the AFV. If the AFV survives it is bogged but may freely unload in a subsequent friendly MPh if it first passes a Bog Removal DR. The AFV's PRC automatically survive the LVT's destruction, but if the AFV does not survive they must roll for survival using the AFV's CS#; if they survive they are placed on foot in the hex in the normal manner.





52. *DUKW:* In 1942 a requirement originated for a wheeled amphibious cargo carrier that could land supplies directly on a beach and then proceed inland with them if necessary. The vehicle ultimately developed for this purpose was a 2½-ton 6×6 truck that was transformed into a boat (complete with anchor) while retaining its wheeled drive. It was designated the DUKW (D=1942; U=utility; K=all-wheel drive; W=twin rear axles) and was commonly referred to as the "Duck". Water propulsion was via propeller, and steering was effected by the combined use of the front wheels and a rudder which were both controlled by the steering wheel. Over 21,000 were built. One vehicle in four was equipped with a ring-mounted .50-cal AAMG. The DUKW was first used in March 1943 during the landings at Noumea, New Guinea; against the Germans its initial use came in July 1943 when 300 were used during the invasion of Sicily.

†ETO Dates are 7/43-5/45. PTO Dates are 3/43-45.



53. *Jeep GPA:* The amphibious Jeep was based on the standard Jeep chassis and engine, but with a boat-like waterproof hull. Propulsion in water was via an engine-driven propeller, and the steering wheel doubled as a helm controlling the rudder. Production of the GPA began in Sept. 1942, but the type never saw widespread service as only about 6,000 were built. Various nicknames were applied to the amphibious Jeep; among them were "Seep", "Waterbug", and "Duckling". "GPA" stands for "General Purpose, Amphibious".

†The Target Size TH DRM is +3 (and also HD) if in a Water Obstacle or deep/flooded stream.



54. *Jeep:* By the end of the war 361,349 Willys MB had been built, as well as 277,896 Ford GPW, for a total of 639,245 standardized Jeeps. The name "Jeep" is said to have derived from the "GP" (General Purpose) designation used by Ford; however, the vehicle's official name was "Truck, ¼-Ton, 4×4, Utility". During the early war years it was often also referred to as the "Peep" (while "Jeep" was used for the ½-ton Dodge truck). Aside from its many command, liaison, etc., roles the Jeep was also standard equipment in the mechanized cavalry recon platoon from mid 1943 on. Each such platoon consisted of an armored car section, and a scout section that contained six Jeeps (three with a mounted MG and three with a 60mm mortar apiece). In addition, a 1944-45 TD battalion included one (if towed) or three (if SP) recon platoons, each of which contained five Jeeps (four with MG) as well as two M8 Armored Cars.

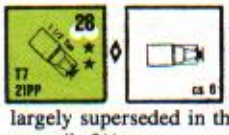
†RF is 1.5 prior to 8/42, 1.3 for 8-10/42, 1.1 from 11/42 through 6/43, and .9 thereafter.



55. *¾-Ton Truck:* This vehicle, known as the Weapons Carrier and nicknamed the "Beep" (for Big Jeep), was used primarily in maintenance and support units for the transport of weapons, equipment, and personnel. The game piece also represents the older ½-ton truck which was used in the same roles but was phased out when the ¾-ton versions became available in the latter half of 1942. About 82,000 ½-ton and 267,000 ¾-ton trucks were built—all by Dodge.

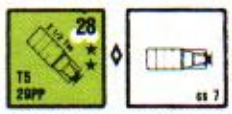
†If "T7" is used as its Towing number, the game piece can also represent the International 1-ton truck which was widely used by the USMC.

†RF is 1.3, except for use with Marines in which case it is 1.1.



56. *1½-Ton Truck:* In late 1939 the U.S. Army standardized five classes of trucks: ½-ton, 1½-ton, 2½-ton, 4-ton, and 7½-ton. Although 428,196 of the 1½-tonner had been built by 1945, it was largely superseded in the cargo-carrying role in U.S. units by the more versatile 2½-tonner; consequently many were built with specialized bodies and fittings for use by the Signal Corps, engineers, etc. The 1½-tonner was not used by the Marines.

†RF is 1.0 prior to 7/42, 1.2 for 7/42-6/43, and 1.3 thereafter.



57. *2½-Ton Truck:* The 2½-ton "light-heavy" truck was the most widely used transport vehicle of U.S. forces during WW2, and was also numerically the most important army truck of the period. There were two basic types: 6×6 and 6×4, with the latter being used almost entirely for road-bound cargo haulage. 812,262 of the 6×6 version were built. The 2½-tonner had various nicknames such as "Deuce and a half", "Jimmy", "Eager Beaver", and "Workhorse of the Army".

†RF is 1.0 through 6/43 and .9 thereafter [EXC: for use with the Marines the RF is always 1.2].



58. *7½-Ton Truck:* In Army service any truck with a load capacity ≥ 4 tons was in the "heavy-heavy" class. Three of the more common vehicles in this category were the Diamond-T 4-Ton 6×6 (used for, among other things, towing the 155mm howitzer and 4.5-in. gun), the 6-Ton 6×6 (used for towing heavy AA guns), and the Mack NO 7½-Ton 6×6. However, for simplicity only the latter is used in the game to represent its class. The Mack 7½-tonner was used as a prime mover for the 155mm gun and the 8-in. howitzer. A low production priority for heavy-heavy trucks during the early war years resulted in their being rather rare, especially in the 1943-44 period. 154,686 heavy-heavy trucks were built during WW2.

†RF is 1.4 through 6/43; 1.5 for 7/43-44; and 1.4 in 1945.

U.S. MULTI-APPLICABLE VEHICLE NOTES

A. APCR is not available in Italy or in the PTO (as signified by "E" in the Depletion number if the vehicle is available in the PTO). "A6" stands for "August 1944", the date when this ammo becomes available.

B. Due to two of the MG that constitute the BMG FP being in fixed mounts and fired remotely, this BMG receives a +1 DRM to all fire at a moving/Motion target. This penalty is signified on the counter by a white dot over the BMG factor.

C. 37mm canister has 12 FP, and is available in all theaters but only after 7/42—as signified by the superscript "A2+" ("August 1942 on") on certain counters. 75mm canister has 20 FP, and is available in 1944-45 but not in Italy. 105mm canister has 24 FP, and is available in 1944-45 but only in the PTO. Printed canister Depletion numbers are increased by *three* for use in the PTO unless the superscript "P" is present to indicate that canister is available only in the PTO; e.g., "C7" becomes "C10" when used in the PTO, but "C7P" is used as "C7" and only in the PTO. For the M3 Medium Tank, canister is available only to the 37LL MA—as signified by "C5[37]" on the counter.

D. The vehicle's high hull made exit and entry difficult for Personnel who had to climb over the sides. Therefore, the costs to (un)load (D6.4-.5) are doubled to ½ of the vehicle's MP allotment and two MF for the Personnel—as signified by "(un)load×2" on the counter [EXC: normal costs apply to the LVT4]. In addition, all attacks made by the Passengers of this vehicle are halved (or receive a +2 TH DRM) as Mounted Fire (D6.1). This vehicle can retain any unpossessed SW aboard it (D6.4), and its crew may Remove its MG armament (D6.631).

E. The inherent crew may fire only the .50-cal MA unless it is malfunctioned or disabled, in which case the crew may fire a secondary AAMG instead. Otherwise, only a Good Order *Passenger* may use a secondary AAMG (as signified on the counter by printing such FP in *red*). If such a Passenger is a lone SMC, it can fire one secondary AAMG; if ≥ two SMC or a MMC, all secondary AAMG can be fired. Assuming they are properly manned, the MA AAMG and any/all secondary AAMG may be fired together as a FG or at separate targets (as per D3.5 and within any applicable field of fire restrictions). *Each red-FP AAMG fired by a Passenger counts as use of a SW for the purpose of also using that Passenger's inherent FP.* See U.S. Vehicle Note H.

F. This AFV may be equipped with a bow-mounted SA FT instead of a BMG—but only by SSR. For DYO purposes (H1.41) use the rules below to determine if this tank is so equipped; note that the DR mentioned below are actually Availability DR.

LT: If the AFV is a Light Tank (as per Vehicle Listing), it has a FT if its owner makes a DR of 2 (for a 7/44-45 scenario in the ETO) or ≤ 4 (for a 1944-45 scenario in the PTO). This FT has 24 FP, Normal Range of 1, and X10.

MT: If the AFV is a Medium Tank it has a FT if the scenario date is 7/44-45 and the owner makes a DR of 2 (for an ETO scenario), or ≤ 4 (for a 7-12/44 scenario in the PTO), or ≤ 5 (for a 1945 scenario in the PTO). This FT has 30 FP, Normal Range of 1, and X10.

G. May be equipped with a Gyrostabilizer as per D11.



H. Each AAMG malfunctions and is repaired or disabled independently of the others. If a vehicle's MA AAMG malfunctions, mark it with a "MA Malfunction" counter to show that its non-MA AAMG FP is still usable. Whenever *all* of a vehicle's *non-MA* AAMG malfunction, indicate this by using an "AAMG Malfunction" counter. If a vehicle has more than one non-MA AAMG and one of them malfunctions, mark the vehicle with a "One AAMG Malfunction" counter; thereafter, in each friendly fire phase in which that AAMG is not repaired, the remaining still-usable non-MA AAMG may fire in its own allowed direction or in the malfunctioned AAMG's direction at no extra penalty. [EX: An LVT4's "port-side" AAMG malfunctions. As long as that AAMG is not repaired, the "starboard-side" AAMG can be used in *either* AAMG's side-rear field of fire; i.e., its field of fire is then in any direction except through the VCA. See the diagram for U.S. Vehicle Note 51.] Since the ROF applies only to the MA (A9.2), the owner must announce before he fires that he is using the MA if he wishes to possibly retain a multiple ROF. An Armor/Passenger leader may direct the fire of more than one vehicular-mounted/Passenger-fired MG only if those MG are firing together as a FG.

I. The AAMG FP actually consists of two MG: one .50-cal HMG (MA; 4 FP) and one secondary .30-cal MMG (2 FP)—as signified by "4MA&[red]2" on the counter. See U.S. Vehicle Note E.

J. While inherent armament of the halftrack, the mortar can fire only at a target that lies within the halftrack's "rear" VCA (i.e., the VCA emanating from its rear Target Facing)—as signified by "MA:RVCA only" on the counter.

K. The AAMG may not fire at a target that lies within the VCA [EXC: during CC]—as signified by "MG:NA VCA" on the counter.

L. This vehicle has Low Ground Pressure (D1.51). Moreover, when it is bogged, one (only) CX squad (even a Prisoner—but not a Guard) on foot expending ≥ four MF in the vehicle's Location (and declared to be assisting its unbogging) thereby allows the owning player to subtract two (one per crew/HS) from its immediately-subsequent unbogging DR.

M. The mortar's range is 3-75 and can be Removed dm (D6.631). While Removed, its ROF, B#, and all other specifications conform to that of the U.S. M1 81mm MTR counter, and the halftrack retains an Inherent Driver.

N. This vehicle was used in North Africa (Morocco/Algeria/Tunisia) at some time from 11/42 to 5/43 (within the limits of its own given Dates).

O. The AAMG is a .50-cal HMG if 4 or 6 FP, or a MMG if 2 FP—and may be Removed (D6.631) as such. If the MG is optional, its RF is 1.3 if 4 FP or 1.1 if 2 FP.

P. This vehicle was used by U.S. forces *only* in the PTO [EXC: if "P" appears, it was *not* used in the PTO by U.S. forces].

Q. The AAMG FP actually consists of three MG; one .50-cal HMG (MA; 6 FP) and two secondary .30-cal MMG (4 FP each)—as signified by "MA:12.7" and "6MA&4&4" on the counter. These MG may fire together as a FG or at separate targets (as per D3.5). In all other respects they are treated as normal AAMG. See U.S. Vehicle Note H.

R. This AFV had a very fast and accurate turret traverse, and also a better-than-normal ROF for a MA of its caliber. Therefore, this AFV is allowed the possibility of Multiple Hits (C3.8) even though its MA is > 40mm. Moreover, in a Gun Duel (C2.2401) its total Firer-based TH DRM are halved (FRD) prior to adding any Acquisition DRM. (The final total of all DRM may not be < zero, and applies for Gun Duel calculations *only*.) These abilities are signified on the counter by *the ROF # being printed on a white background.*

S. Equipped with smoke pots (as signified by "sP#" on the counter) instead of a smoke mortar. See D13 for usage. A crew must be CE in order to attempt sP usage.

T. The Bog DRM for ground specified as "soft, mud, or snow-covered" (D8.21) does not apply to an LVT.

U. Gunshield yields a +3 DRM against incoming fire through the AFV's front Target Facing instead of the normal +2 DRM for CE status. This is signified by "CE:+3F" on the counter.

V. Even though the CMG (or IFE, for the M16 MGMC) FP actually comprises more than one MG, it is treated as a single weapon for malfunction/repair purposes. Neither the MA nor CMG may be Scrounged or Removed—as signified by "CMG [or MA] Rmvl NA" on the counter. Neither the MA nor CMG may fire at a target that lies within the VCA and is also at the same or a lower level than the firer [EXC: during CC]. This is indicated on the counter by "VCA ≤ level NA".

W. Reverse movement costs this vehicle four times its normal hex entry cost—as signified by "REV×4" on the counter.

X. Any optional MG are available 7/44-45, with 1.1 RF. The BMG *can* fire while the vehicle is HD—as signified by "BMG HD FP ok" on the counter.

Y. If the scenario date is after 7/25/44, and if SSR so specifies, this AFV is equipped with the Culin hedgerow device. For a DYO scenario set after this date the player may, if he wishes to use the Culin device, make a dr to determine its availability: ≤ 2 means all *eligible* LT, MT, TD, and SPA are so equipped: 3-4 means only *eligible* LT and MT are so equipped; ≥ 5 means no AFV are so equipped. One dr determines availability for all eligible AFV purchased for the player's OB. The BPV cost of the optional Culin device is five points per AFV having it.

Z. This vehicle starts each scenario carrying one BAZ of the latest model (signified by "BAZ" on the counter), which does apply to the vehicle's PP capacity (D6.1) when it takes counter form. (Thus it must remain inherent if the vehicle currently has no unused PP capacity.) In a single Player Turn the inherent crew may fire either the vehicle's normal armament *or* the BAZ (as per C13.8-.81). Otherwise, the BAZ may only be Removed (D6.631) by the crew or a Passenger (who can claim possession of it automatically), or Scrounged (D10.5). These principles also apply to the inherent SW in the German SPW 251/10.

AA. MA and CMG (if so equipped) have AA capability—signified by "MA:AA" on the counter.

BB: WP7 and s5 become available in June 1944—as signified by the superscript "[7+]" on the counter.

CC. The vehicle if armed, has an Inherent crew and thus has a CS# instead of a cs# (D5.6).

U.S. ORDNANCE NOTES



1. *M2 60mm Mortar:* This light mortar was a license-built version of the French Brandt 60mm mortar, and was adopted by the U.S. Army in 1940. About 75,000 were made. An Army rifle company had three in the mortar section of its weapons platoon. A mechanized cavalry recon troop had nine (three per platoon; see U.S. Vehicle Note 54). Each armored infantry platoon had one (see U.S. Vehicle Notes 28 and 29). Each parachute infantry platoon had one, as did each glider infantry platoon until 8/44. The glider infantry company also had 2-4 more (depending on the date) in its weapons platoon. A Marine rifle company had two (officially increased to three in April 1943—although many companies apparently did not receive the third one until much later). In May 1944 four were also authorized in each Marine infantry battalion HQ company. A Marine Raider company had three 60mm mortars.

†The M2 had a longer range than most light mortars because its primary role was not as a "direct support" weapon for the platoon/company, but rather as the company's on-call "OBA". Therefore, for every three M2 mortars the U.S. player receives in his OB, he may exchange those three for a radio (or field phone) and a 4 FP OBA battery that can fire only HE (and WP in 1945) Concentrations/IR. This battery receives the −2 Radio Contact Maintenance DRM of C1.22, and uses the standard U.S. Battery Access draw pile [EXC: if the U.S. force is suffering from Ammo Shortage, this battery has Scarce ammo]. When used as OBA, the M2 is treated as having a maximum range of 40 hexes, which is counted from the center road hex of the U.S. player's Friendly Board Edge (i.e., as per B11.42). An AR/SR/FFE counter of this OBA cannot be placed/Corrected beyond this range of 40 hexes, and any direction/extent of error dr that would place such a counter beyond this range is void and must be rerolled. If the U.S. force has no Friendly Board Edge, this OBA option cannot be used.



2. *M19 60mm Mortar:* Also known as the T18E6, this was a lighter, simplified version of the M2. Only a small number were made, and were issued to a few airborne and special purpose units. The M19 used the same tube as the M2, but had a much smaller baseplate and no bipod. It also differed from the M2 by being trigger-fired.



U.S. ORDNANCE LISTING

#	Name	Type	CSize	ROF (IFE)	B#	Range	M#	TSize	Dates	Special	BPV	RF	Notes
6	M2 60mm Mortar	MTR	60*	3		3-45	—	—	40-45	5PP, WP7[3], IR, OBA†	—	—	1†,N
6	M19 60mm Mortar	MTR	60*	2	11	2-18	—	—	44-45	4PP, WP6[3], IR	18	1.6	2
4	M1 81mm Mortar	MTR	81*	3		3-75	11	+1	40-45	NT, QSU, WP8	29	1.1	3,N
4	M2 4.2-in. Mortar	MTR	107†	2	11	14-100	**10**	+1	7/43-45†	NT, QSU, WP10	26	1.4-1.2†	4†
2	T25 155mm Mortar	MTR	155*	1	11	5-57	7†	0	7/44-45	NT, WP8	18	1.6	5†,P
4	M3A1 37mm AT Gun	AT	37LL	2		292	12	+1	39-45†	NT, QSU, C7[A2+†]	30	.9-1.4†	6†,C†[3],N
4	M1 57mm AT Gun	AT	57L†	3		247	10	+1	7/43-45†	NT, QSU, HE7[J4E]/75†, D4[J4+E]†	33	1.3-1.0†	7†
4	M5 3-in. AT Gun	AT	76L	1		366	7	0	6/44-5/45†	NT, QSU, A4[4]/5[3]†, s6[3]	40	1.2-1.4†	8†,[F]
4	T32 37mm Manpack Gun	INF	37*	2	11		—	—	7/44-45†	5PP (3PP dm)†, C5†[1], crewed†[2]	26	1.6	9†,C†[2],D†[2]
4	M18 57mm Recoilless Rifle	RCL	57	1	11	110	—	—	3-6/45†	3PP, H7, WP6, crewed†[1]	29	1.6	10,D†[1],E†
4	M20 75mm Recoilless Rifle	RCL	75	1		160	—	—	3-6/45†	5PP, H7, WP7, crewed†[1]	36	1.6	11,D†[1],E†
4	M1A1 75mm Pack Howitzer	ART	75*	2		218	10	+1	41-45†	NT, QSU, H7, WP8, C4[4+†][3]	33	1.5-1.1†	12†,C†[1]
2	M1897A2 75mm Gun	ART	75	1		309	8	0	17-4/42	NT, QSU, WP8	32	1.3	13,P
4	M2A1 105mm Howitzer	ART	105	1		286	7	0	8/42-45†	NT, H6, s7, WP8, C7[4+P†][1]	34	1.2-1.0†	14†,C†[1],N
4	M3 105mm Howitzer	ART	105*	1		166	**10**	0	9/43-45†	NT, H7, s7, WP8, C7[P†][1]	35	1.4-1.0†	15†,C†[1]
2	M1 4.5-in. Gun	ART	114			480	**3**	−1	10/43-5/45†	NT	28	1.6-1.5†	16†,[F]
2	M1918 155mm Howitzer	ART	155*		11	281	**5**	−1	17-45†	NT, s7[3+], WP8	37	1.2-1.4†	17†,N
2	M1 155mm Howitzer	ART	155			372	**3**	−1	7/43-45†	NT, s7, WP8	40	1.5-1.2†	18†,N
2	M1918M1 155mm Gun	ART	155		11	425	**-1**	−1	17-44†	NT, RFNM, AP4, WP8, no IF	31	1.4-1.6†	19†,A,N
2	M1A1 155mm Gun	ART	155L			584	**-3**	−1	7/43-45†	NT, RFNM, AP4, s7[3], WP8, no IF	34	1.5-1.3†	20†,A
2	M1 8-in. Howitzer	ART	203			421	**-4**	−1	11/43-45†	NT, RFNM, no IF	36	1.6-1.4†	21†
2	M51 Multiple .50-cal. MG Carriage	AA	12.7	3 (24)		†	9	0	9/43-45	T, 4 TK DR†, LF [2 ROF, 20 IFE, B11]	51	1.4	22†
4	M1A2 37mm AA Gun	AA	37L	3 (8)		202	7	0	39-45†	T	34	1.3-1.5†	23†,N
4	M1 40mm AA Gun	AA	40L	3 (8)		247	8	0	9/43-45†	T, LF [40†[1], 2 ROF]	40	1.5-1.2†	24†,B†[1]
2	M3 3-in. AA Gun	AA	76L	2		370	**3**	−1	28-42	T, NM	37	1.3	25,P
2	M1A1 90mm AA Gun	AA	90L	2		454	**2**	−1	43-45	T, NM	47	1.6-1.4†	26†,N
2	M2 90mm AA Gun	AA	90L	2		454	**-3**	−1	6/44-45	T, LF [90†, 1 ROF, B11]	53	1.5-1.3†[4]	27†[1],B†



3. *M1 81mm Mortar:* This weapon, a copy of the classic French Brandt 81mm mortar, was the standard battalion mortar in U.S. service. It fired both light (7-lb.) and heavy (10¾-lb.) HE bombs, as well as WP. About 30,000 were made during the war. Its primary use was in the heavy weapons company of the infantry battalion, whose mortar platoon contained three sections of two mortars each. (Parachute mortar platoons had only two sections—and airborne 81mm mortar platoons were located in the infantry battalion's HQ company.) A mechanized cavalry recon squadron had three 81mm mortars, as did a TD battalion (SP). The weapons company of a Marine battalion contained a platoon of four 81mm mortars until April 1944 (after which date the platoon was moved to the battalion's HQ company), while the HQ company of a Marine Raider regiment had eight.



4. *M2 4.2-in. Mortar:* This weapon was designed by the Chemical Warfare Service, and some 8,500 were built. The 4.2-in. (or "Goon Gun", as it was sometimes called) had been intended to fire only gas and SMOKE rounds; however, an HE round was also designed in time for the mortar's combat debut in Sicily. In action it was found that the higher ROF used when firing HE increased the incidence of malfunctions. The normal Smoke rounds appear to have been used rarely, if at all, in combat. Unlike the vast majority of mortars whose barrels are smoothbore, the 4.2-in. was unusual in having a rifled barrel. This feature increased its accuracy, but at the cost of making it (and its projectiles) more expensive and time-consuming to manufacture. The 4.2-in. was used only in chemical mortar battalions, which were attached at army/corps level. A platoon comprised four weapons.

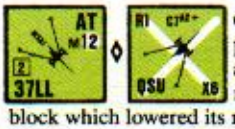
†This MTR fired an exceptionally potent round for its caliber; therefore its Area Target FP is "12" (rather than "8"). This is signified by "12 Area FP" on the counter.

†RF in the ETO is as follows: 1.4 for 7/43-5/44; 1.3 for 6/44-2/45; and 1.2 for 3-5/45. PTO Dates and RF are 8/43-45 and 1.4.



5. *T25 155mm Mortar:* This weapon was designed to give heavy and immediate fire support to amphibious landings and jungle troops in locales not suited to conventional artillery. To be moved, it had to be disassembled; the tube and recoil mechanism were loaded aboard a special handcart, while a second cart carried the bipod and baseplate. Other carts transported the ammo, with six rounds on each. Combat trials were conducted in the SW Pacific in 1944, whereupon it was decided that the extra weight of the T25 and its ammunition negated the value of its larger round, so it was withdrawn from service. Only 244 were built.

†This mortar is carried *on* a vehicle that has a T# ≤ its M# (like a 76-107mm MTR; C10.1), rather than towed by it—as signified by "Tow NA" on the counter.



6. *M3A1 37mm AT Gun:* Development of the first purpose-built U.S. anti-tank gun started in 1937, and was based on the German PaK 35/36. Unlike most AT guns, the M3A1 had a manual breech block which lowered its rate of fire. It was used in combat in North Africa but was then gradually replaced in the ETO by the 57mm gun. In the PTO, however, it remained in use throughout the war, being quite adequate to deal with the lightly-armored Japanese AFV, and having a canister round that proved invaluable for stopping massed infantry attacks. 18,702 were built. It was usually towed by a Jeep or ¾-ton truck. In the 1941-43 period it was found in the Army infantry battalion's HQ company, the infantry regiment's AT company, the armored infantry company (with one gun per armored infantry platoon and one in the company HQ, towed by an M2 Halftrack), the HQ company of an armored infantry regiment, the armored division's HQ company and armored recon battalion, and the glider infantry regiment. A platoon comprised four guns. In addition, the 10th Mountain Division in Italy was authorized three 37mm AT guns per infantry battalion. A Marine division had three four-gun 37mm AT platoons in each infantry regiment's weapons company, and also had (from April 1943 through 1944) three six-gun platoons in its Special Weapons battalion.



A Marine Raider regiment had four 37mm AT guns. The Philippine Army also used the 37mm AT gun in 1941-42.

†Dates for use in North Africa and the ETO are 11/42-5/45; RF for such use is .9 for 11/42-6/43, 1.2 for 7-12/43, and 1.4 thereafter. PTO RF is 1.0.



7. *M1 57mm AT Gun:* By 1941 the Army had realized that its 37mm AT gun was rapidly becoming obsolete. Since it might take several years to design and develop a new gun, the British 6-pounder was copied, with minor alterations made for American preferences and production methods. Some 16,000 of the M1 were built, and from mid 1943 it gradually replaced the 37mm M3A1 in the ETO. In mid 1943 the Army also reorganized its infantry divisions; subsequently the 57mm could be found in the division's HQ company, as well as in the infantry battalion HQ company's AT platoon and the infantry regiment's AT company (first appearing in the latter company, and only later in the battalion AT platoon). Each armored infantry company had one platoon (towed by M2 halftracks), as did the armored division's HQ company. In an airborne division AT guns were found in the glider infantry regiment, the glider infantry battalions (in 1945), the Airborne AA battalion, and the artillery battalions. A platoon comprised three guns (four in certain airborne applications) which were often towed by Jeeps. Unlike most British, Soviet, and German divisions, a U.S. Army division had no organic AT battalion— divisional AT assets being in the form of one or more attached TD battalions. Exceptions to this were the 10th Mountain Division in Italy with its AT battalion of 18 57mm guns, and the airborne divisions which each had a combined AA/AT battalion.

Contrary to what has been previously published, the M1 did fire other types of ammunition besides AP. Limited supplies of British HE and APDS became available in the summer of 1944, and the U.S. T18 HE round was being issued by early 1945. A canister round was also developed—but if used in combat it was issued only in small amounts in late 1944.

†HE with a Depletion number of "7", and APDS with a Depletion number of "4", are available in the ETO as of June 1944. HE7 becomes available in the PTO in 1945. These restrictions are signified on the counter by the superscripts "J" (for June) and "E" (for ETO).

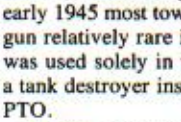
†Dates for use in the ETO and PTO are 7/43-5/45 and 44-45 respectively. Decrease ETO RF by .1 for each two-month period after 8/43, until 1.0 is reached in 1/44. PTO RF is 1.2.



8. *M5 3-in. AT Gun:* While the M1 57mm AT gun was being developed in 1941, the Army also decided to start work on a more powerful weapon. To bring it into production as quickly as possible, the designers used the barrel of the 3-in. (76mm) AA gun and the carriage, breech, and recoil mechanisms of the 105mm howitzer. The result was rather large and heavy for an AT gun (its weight in action was almost twice that of the German 7.5cm PaK 40), but it worked better than might have been expected from such an improvisation. However, while the M3 3-in. AA gun and the M7 3-in. gun of the M10 GMC had semiautomatic breech blocks, the M5 had a manual breech block which lowered its rate of fire. 2,500 were built before production ended in 1944. The M5 was not used as a divisional AT gun but rather in tank destroyer battalions (towed), with four guns (each towed by an M3 halftrack) per platoon. In early 1945 most towed battalions were converted to SP, making the towed gun relatively rare in the last few months of the war. Since the M5 3-in. was used solely in towed TD battalions it was sometimes referred to as a tank destroyer instead of an AT gun. Apparently it was not used in the PTO.

†APCR is not available in Italy.

†RF for use in the ETO (other than Italy) is 1.3 for 6-8/44, 1.2 for 9/44-2/45, and 1.4 for 3-5/45. Dates and RF for use in Italy are 11/44-5/45 and 1.4.



9. *T32 37mm Manpack Gun:* The canister-firing 37mm AT gun was highly valued in the jungle fighting that was common in the PTO, but was difficult to manhandle forward in such terrain. Therefore in late 1943 work began on a light gun that could be completely dismantled and backpacked by its crew or by mule. When assembled, the barrel and recoil mechanism were mounted on a modified .50-cal MG tripod, and the gun's weight in action was 264-lbs. It fired the same HE ammo as the 37mm AT gun as well as a specially developed canister round. 155 were sent to the PTO in 1944 (possibly at the same time as the T25 155mm MTR), and about 100 others were used in Italy in 1945.

†Due to the T32's rarity and unusual design it is treated as a crewed weapon; see U.S. Ordnance Note D. In addition, the T32 may be moved (or advanced) into/through, and fired from, all terrain types allowed to a HMG (e.g., an upper building level). As a SW, the T32 incurs no CA-change DRM penalty (C9.2), but is subject to the woods/building CA restrictions of A9.21. The T32 has no Gunshield, and its portage cost while dm is 3 PP.

†Dates for use in Italy are 3-5/45.



10. *M18 57mm Recoilless Rifle:* Although the first patent for a recoilless gun was granted to an American in 1898, serious work on turning the principle into a viable weapon did not begin in the U.S. until June 1943. The Infantry Section of the Army's R&D Service designed a 57mm piece based on principles gleaned from British RCL experiments, while the Artillery Section produced a weapon based on the German 105mm RCL. The 57mm was test-fired in October 1943 and the Army decided to give it priority over the 105 since its light weight would enable it to be easily carried through jungle or broken terrain. Under the designation T15, 100 were ordered in the spring of 1944 for combat trials. Fifty were sent to the ETO in early 1945 and were first used by the 17th Airborne Division near Essen. Some were also used on Okinawa. The T15 weighed 44-lbs. and could be fired from either the shoulder, its attached bipod, or a modified .30-cal MG tripod. It was standardized as the M18 in June 1945. Development of a canister round was initiated, but was unsatisfactory and apparently was cancelled without undergoing combat trials.

ERRATA: 57mm HEAT ammo has a Basic TK# of "11".



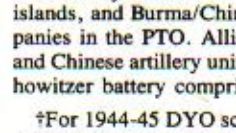
11. *M20 75mm Recoilless Rifle:* This was basically an enlarged version of the 57mm gun. Its weight of 115-lbs. relegated it to almost always being fired from its modified .30-cal MG tripod. The first production order for the T21E4 was placed in October 1944, and combat trials took place alongside the 57mm RCL. It was standardized as the M20 in June 1945. Both U.S. RCL were known as "Kromuskits", which is an amalgamation of the original designers' names.



12. *M1A1 75mm Pack Howitzer:* This weapon was originally developed in the 1920s as a mountain gun able to be disassembled and carried by pack mules. Later a new carriage with pneumatic tires was introduced, thus making the gun able to be towed at higher speeds by a motorized vehicle (usually a Jeep) as well as enabling it to be dropped by parachute. In the latter role it was broken down into nine loads, which in 1944-45 were held together by a harness during their descent. (Prior to 1944 no harness was used, causing a wide dispersion of the gun's components and resulting in an average assembly time of half an hour in daylight or one hour at night.) The 75mm pack howitzer was used in action by field artillery battalions of Marine divisions (officially deleted in May 1945), airborne divisions, and the 10th Mountain Division in Italy. It was also used by several nondivisional artillery battalions in Europe, the Pacific islands, and Burma/China. Some also equipped regimental cannon companies in the PTO. Allied troops who used it included British airborne and Chinese artillery units, and Yugoslav partisans. In U.S. service a pack howitzer battery comprised four such weapons.

‡For 1944-45 DYO scenarios the gun is represented by a ½" parachute when being air-dropped, and is considered re-assembled only if its manning Infantry have spent one *complete* Game Turn TI in the same Location with it.

†Dates and RF for use in other than the PTO are 7/43-5/45 and 1.3. PTO RF is 1.5 through 7/42, and 1.1 thereafter.



13. *M1897A2 75mm Gun:* The M1897A2 was the famed "French 75"—the world's first modern field piece—as altered and built in the U.S.A. after WW1. Although being phased out of active service in 1941, it did see combat in the Philippines with elements of the 23rd, 24th, and 88th Field Artillery Regiments (and probably also with the Philippine Army), and on Java with the 2nd Battalion of the 131st Field Artillery Regiment. The remaining guns were used for training, for arming various allies, and as the armament of the M3 GMC. 4,236 of the M1897A2 were built.





14. *M2A1 105mm Howitzer:* As the standard divisional light artillery piece, the M2A1 was used in the field artillery battalions of Marine, cavalry, and infantry divisions, and also in nondivisional field artillery battalions. A battery consisted of four howitzers, each towed by a 2½-ton truck. 8,536 were built by the end of the war. 13 different types of ammunition were developed for it. The M2A1 was an excellent howitzer and in various modified forms is still in service with over forty countries, including the U.S. where it is designated the M101A1.

†ETO Dates and RF are 11/42-5/45 and 1.0. PTO Dates are 8/42-45, with ROF of 1.2 for 8-10/42 and 1.0 thereafter.



15. *M3 105mm Howitzer:* In 1941 a requirement was issued for an air-transportable 105mm howitzer. The weapon designed to meet this requirement used the M2A1 howitzer's barrel (shortened by 27 inches), the carriage from the cavalry version of the 75mm pack howitzer, and a modified version of the pack howitzer's recoil mechanism. The result worked suprisingly well (although its maximum range was much less than M2A1's). Its primary employment was with the infantry regiment, which as of July 1943 was authorized a cannon company of six M3 howitzers (each towed by a ¾-ton truck). Several glider field artillery battalions (e.g., the 319th, 320th, and 907th) also used the M3 in 1944-45; one glider would bring in the howitzer and its ammo, while another would land its crew with the Jeep used to tow it. (A few sources state that all glider field artillery battalions used the M3, but others say that some retained the pack 75.) While the M3 could be classified as an INF Gun, it was used in the indirect fire role more than its German 75 and 150mm counterparts, and had no gunshield, so has been classed as an ART Type.

†Decrease ETO RF by .1 for each month after 9/43, until 1.0 is reached in 1/44. PTO Dates and RF are 1944-45 and 1.2.



16. *M1 4.5-in. Gun:* In 1939 the Army decided to design a new 4.7-in. (120mm) gun. It was then suggested that the caliber be changed to 4.5-in. (114mm) so as to allow interchangeability of ammunition with the British gun of the same caliber. The M1 was the result. Its British-designed ammunition had a low HE content for its caliber, which made it less effective than desired; for this reason, and its excellent range notwithstanding, the 4.5-in. was declared obsolete the day afer VE Day. 426 were built, but only about 200 saw combat in sixteen medium field artillery battalions—all in the ETO. A battery of 4.5-in. guns comprised four such weapons.

†Dates and RF for use in Italy are 10/43-9/44 and 1.6. Dates for use elsewhere in the ETO are 6/44-5/45, with RF of 1.6 through 9/44, and 1.5 thereafter.



17. *M1918 155mm Howitzer:* In June 1940, 2,791 M1917 (the French C17S) and M1918 (its U.S.-built version) howitzers were in service, of which 599 had pneumatic tires for vehicular towing. The M1918 saw action in the PTO (initially with the 86th Field Artillery Regiment in the Philippines and possibly with the 26th Field Artillery Brigade on Java), North Africa, Sicily, and Italy. It was also used at one time or another during the war by the Chinese, British, Free French, and South Africans.

†Dates for use in North Africa, Sicily, and Italy are 11/42-5/45; RF for this use is 1.2 through 10/43 and 1.4 thereafter. PTO Dates are 41-45, with 1.3 RF through 1943 and 1.4 thereafter.



18. *M1 155mm Howitzer:* Production of the M1 was slow in getting underway; by the end of 1942 only 33 had been completed. 4,035 were eventually built during the war, during which time it gained a reputation for both reliability and accuracy. Slightly modified after the war, it is still used in almost 30 countries, including the U.S. where it is designated the M114A1. The 155mm howitzer was most commonly used as a companion piece to the 105mm howitzer in divisional artillery, with one 155mm medium field artillery battalion (three batteries of four howitzers each) per infantry division. "One-five-fives" also equipped nondivisional medium artillery battalions. Marine divisions were authorized a battalion of 155mm howitzers in May 1945.

†Dates for use in other than the PTO are 7/43-5/45; RF for such use is 1.5 through 8/43, 1.4 for 9-10/43, and 1.2 thereafter. PTO Dates and RF are 44-45 and 1.3 [EXC: for use with the Marines they are 2-6/45 and 1.5].



19. *M1918M1 155mm Gun:* The M1918M1 was a U.S.-built version of the French "Canon de 155 GPF". 641 of the M1918M1 were produced, while 48 of the M1917 model had been purchased. Some saw combat in the Philippines and several other Pacific actions, mostly with coast artillery battalions providing long range artillery support. They were also used in Tunisia, Sicily, and Italy before being replaced by the newer M1A1 model. Some M1918M1 were used as the MA of the M12 GMC, others were Lend-Leased, and the remainder were used for training.

†Dates and RF for use in North Africa, Sicily, and Italy are 1943 and 1.5, while for use in the PTO they are 41-44 and 1.6.



20. *M1A1 155mm Gun:* Work on what came to be called the "Long Tom" started immediately after WW1, but the design was not standardized until 1938. By the end of 1941 only 65 had been built. Prior to 1944 the M1A1 was produced, which incorporated an improved breech ring. Both types (and the M1918M1 models) were used in nondivisional heavy field artillery battalions which comprised three four-gun batteries, and also in eight-gun coast artillery battalions that were used as heavy artillery thoughout the island compaigns in the Pacific. The M1 and M1A1 guns became standard U.S. heavy artillery weapons during WW2, and an improved M2 version remained in both U.S. and British service until the 1950s. The normal time required to completely unlimber the M1A1 was 20-30 minutes.

†Dates and RF for use in the ETO are 8/43-5/45, with 1.5 for 8/43-6/44, 1.4 for 7/44-1/45, and 1.3 for 2-5/45. PTO Dates and RF are 5/43-45 and 1.5.



21. *M1 8-in. Howitzer:* This howitzer first saw combat in late 1943 with the 932nd and 935th Field Artillery Battalions in Italy, while its debut in the PTO was in New Guinea with the 465th Field Artillery Battalion. It was not used by the Marines. By 1945 1,006 M1 8-in. howitzers had been built, and had acquired the reputation of being the war's most accurate long range artillery pieces. An 8-in. howitzer battery consisted of four such weapons. In its towed version the 8-in. was redesignated the M115 after the war and still serves in the armies of several nations. The normal time to completely unlimber the M1 was 30-60 minutes.

†Dates and RF for use in Italy are 11/43-7/44 (RF 1.5), 8-10/44 (RF 1.6), and 3-5/45 (RF 1.5). Dates and RF for use elsewhere in the ETO are 7/44-1/45 (RF 1.5) and 2-5/45 (RF 1.4). PTO Dates and RF are 9/44-45 and 1.6.



22. *M51 Multiple .50-cal MG Carriage:* This weapon was the same as that on the M16 MGMC halftrack (see U.S. Vehicle Note 38), but here was mounted on a four-wheel trailer. In both cases the weapons system was usually referred to as the Maxson, after its manufacturer. A lighter air-transportable version was also developed; designated the M55, it could be towed by a Jeep.

†Make four To Kill DR when using the 12.7 column of the AP To Kill Table; only one DR (firer's choice) is used. Maximum range for To Hit purposes (A9.61) is 16 hexes.



23. *M1A2 37mm AA Gun:* The design of this weapon was started in 1920 by John Browning (of MG fame) but the final version did not enter production until 1939. It compared unfavorably with the 40mm AA gun in several respects but, since production of the latter could not meet demands, the M1A2 continued to be built. 7,278 were manufactured and the gun saw service in all theaters throughout the war. It was also employed as the MA of the M15 and M15A1 MGMC halftracks. The Army used the M1A2 in four-gun batteries in both Mobile and Semimobile AAA [Anti-Aircraft Artillery] Automatic Weapons battalions, and in Coast Artillery (AA) regiments. The Marines used four-gun M1A2 platoons in AAA battalions, Defense battalions, and divisional Special Weapons battalions.

†Dates for use in North Africa and the ETO are 11/42-5/45, with RF of 1.3 through 3/44, 1.4 for 4-12/44, and 1.5 in 1945. RF for use in the PTO is 1.3 through 5/44, and 1.4 thereafter.





24. *M1 40mm AA Gun:* This is the famous Bofors, which was the most widely used AA gun of the Second World War. 34,116 were built in the U.S. during WW2, and they served in all theaters in most of the same types of units as the M1A2. A light-weight, air-transportable version known as the M5, which when disassembled could be carried in a C-47, was also built; although originally intended as an Airborne weapon it was mainly used in the PTO—presumably by the 101st, 102nd, and 843rd AAA Automatic Weapons Battalions (Air-Transportable). Eighteen U.S. Bofors were field-mounted on M3 halftracks by the 209th AAA Automatic Weapons Battalion (SP), and in 1945 were used by that unit in the ground support role on Luzon.

†Dates for use in the ETO (other than Italy) are 6/44-5/45, with RF of 1.3 for 6-9/44 and 1.2 thereafter. Dates for use in Italy are 9/43-1/45, with RF of 1.4 for 9/43-3/44, 1.3 for 4-10/44, 1.4 for 11-12/44, and 1.5 for 1/45. Dates for use in the PTO are 11/43-45, with RF of 1.5 through 5/44 and 1.3 thereafter.



25. *M3 3-in. AA Gun:* There were two distinct types of 3-in. AA guns: a mobile version (which the game piece represents), and a static gun that was used in permanent defenses. About 800 were built. By 1941 most had been relegated to training roles, but some equipped Coast Artillery (AA) regiments and Marine Defense battalions in the PTO where they saw combat during the initial Japanese attacks (e.g., on Guam, Wake Island, and in the Philippines). AP ammunition was not issued to the static guns. One interesting fact concerning all Army AA units is that prior to March 1942 they were part of the Coast Artillery; hence they had Coast Artillery designations until inactivated or renamed later in the war. A 3-in. AA battery comprised four guns.



26. *M1A1 90mm AA Gun:* In 1940 the M1 90mm AA gun, which after slight modification became the M1A1, entered production. By the end of 1942 more than 2,000 90mm AA guns had been built, and they saw service in all theaters. Two deficiencies of the 3-in. AA gun which were not corrected in the 90mm piece were the amount of time required for unlimbering and the inability to depress the gun barrel to fire on targets at lower elevations. This was due to their having been designed solely for AA fire, with little consideration given to use against ground targets.

†ETO RF is 1.5 until 1944 when it becomes 1.4. PTO RF is 1.6 until 1944 when it becomes 1.5.



27. *M2 90mm AA Gun:* Even as the M1A1 gun was entering production it was decided that AA guns should be able to fire at all types of ground targets as well as aircraft. The M1A1 was redesigned to incorporate this principle, resulting in the M2 in 1943. In the M2 the gun itself was little changed, but the mount was entirely new and provided for both rapid unlimbering and limbered fire. Because of the M2's ability to fire at land, sea, and air targets it came to be known as the "triple threat" gun. By the end of the war 7,831 M1, M1A1, and M2 90mm AA guns had been built. They were used in four-gun batteries in both Mobile and Semimobile AAA Gun battalions, and also in those types of units previously equipped with 3-in. AA guns. Until mid 1943 one four-gun 90mm (or 3-in.) AA battery was also included in the Special Weapons battalion of a Marine division.

†RF in the ETO (other than Italy) is 1.5 for 6-7/44, 1.4 for 8-9/44, and 1.3 thereafter. RF in Italy and the PTO is 1.5.

U.S. MULTI-APPLICABLE ORDNANCE NOTES

A. The AP ammo has a low Depletion number due to its being intended for use solely in the Coast Artillery role against ships.

B. When using Limbered Fire, the Barrel Length modification (C4.1) on the counter's LF side is used for To Hit purposes; the Basic To Kill number, however, is still determined using the Caliber Size and Length printed on the unlimbered side.

C. 37mm canister has 12 FP, and is available in all theaters but only *after* 7/42—as signified by the superscript "A2+" ("Aug. '42 on") on the counter. 75mm canister has 20 FP, and is available in 1944-45 but not in Italy. 105mm canister has 24 FP, and is available in 1944-45 but only in the PTO. Printed canister Depletion numbers are increased by *three* for use in the PTO unless the superscript "P" is present to indicate that canister is available only in the PTO; e.g., "C7" becomes "C10" when used in the PTO, but "C7P" is used as "C7" and only in the PTO.

D. This weapon requires a crew (C12.2) or two SMC (C12.21) in order to be used without penalty—as signified by "crew" on the counter. (Therefore C12.2-.21 apply to the T32 37mm Manpack Gun as well as to the RCL.) See A15.23 for hero usage. The BPV of this weapon includes a crew as per H1.3.

E. Dates and RF for use in Germany are 3-5/45. For use on Okinawa they are 6/45.

N. This weapon was used in North Africa (Morocco/Algeria/Tunisia) at some time from 11/42 to 5/43 (within the limits of its own given Dates).

P. This weapon was used by U.S. forces *only* in the PTO [EXC: if "P" appears, it was *not* used by U.S. forces in the PTO].

U.S. ARMY SW ALLOTMENT CHART[1]

	MMG	HMG	.50cal HMG	M2 LT. MTR[2]	BAZ	FT[3]	DC[3]
41-42	8	12	16	8	9[4]	—	2
43	7	11	14	7	7	4[5]	2[5]
44-45	6	10	13	6	5	3[5]	1
# In Game	*6*	*6*	*6*	*6*	*8/9/9[6]*	*6*	*6*

[1]: SW allotted according to Equivalent #.
[2]: Each three received may be exchanged for an OBA module; see U.S. Ordnance Note 1.
[3]: Allotted according to number of Assault Engineers, see 1.22.
[4]: Not available until Nov. 1942.
[5]: Vs Japanese, reduce this # by one.
[6]: 1943/44/45 models respectively.

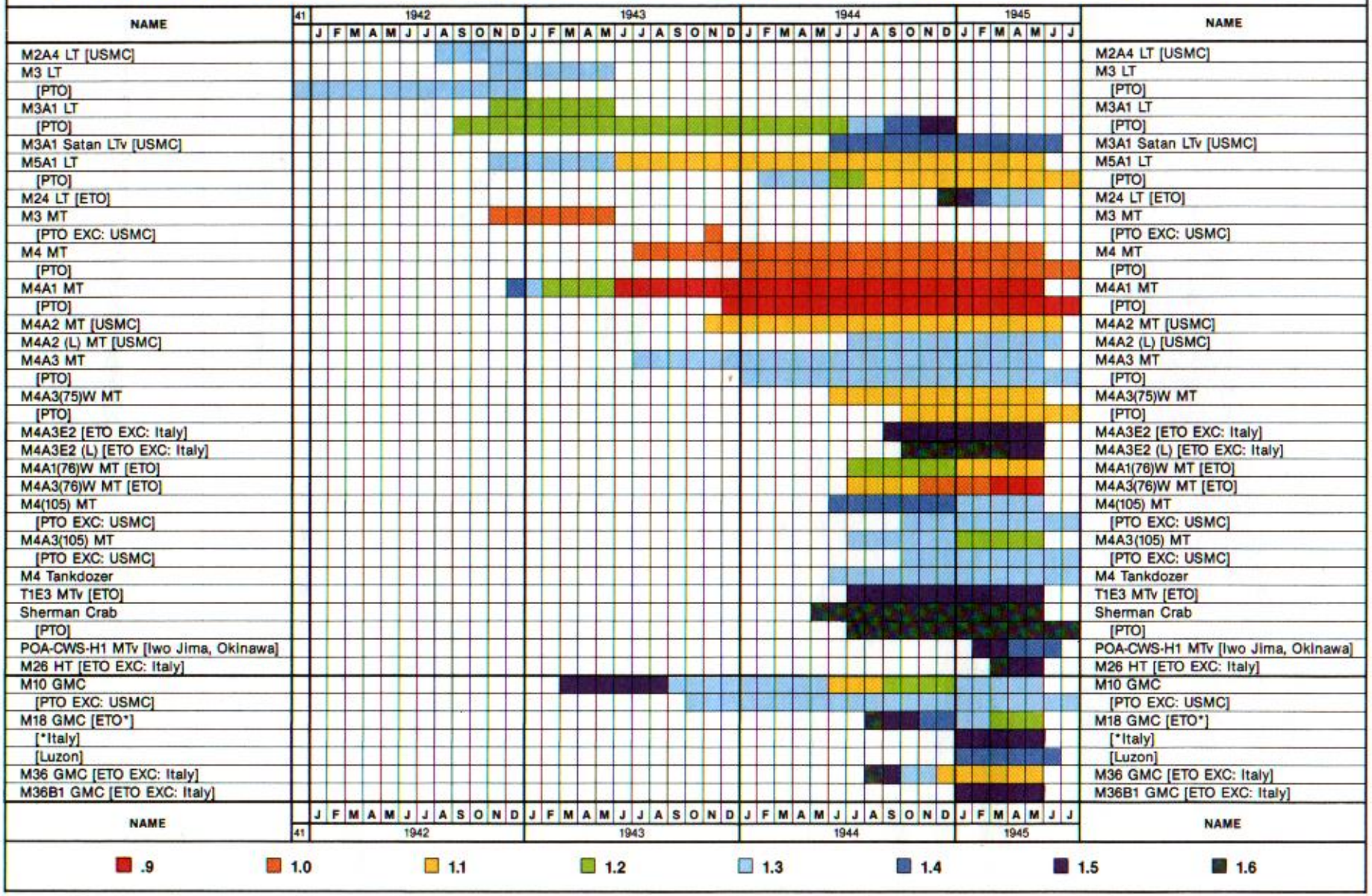
U.S. ARMY OBA AVAILABILITY CHART[1]

YEAR	41-10/42	11/42-5/43	6/43-5/44	6-12/44	1945
DR: 2 BPV:	150+ 236 W	80+M 131 W	200+ 284	150+ † 236 S	100+ † 158 S
3	150+ 236 W	150+ 236 S	150+ † 236 S	200+ 284	100+R 53
4	70+ 95 W	150+ 236 S	150+ † 236 S	80+M 131 W	200+ 284
5	80+M 131 W	100+ 158 S	100+ † 158 S	80+M 131 W	100+ † 158 W
6	80+M 131 W	100+ 158 S	100+ † 158 S	80+M 131 W	80+M 131 W
7	80+M 131 W	80+M 131 W	80+M 131 W	100+ † 158 S	150+ † 236 S
8	80+M 131 W	80+M 131 W	80+M 131 W	150+ † 236 S	100+ † 158 S
9	70+ 95 W	80+M 131 W	100+ † 158 W	100+ † 158 W	80+M 131 W
10	70+ 95 W	100+ 158 S	80+M 131 W	70+ 95 W	70+ 95 W
11	70+ 95 W	70+[2] 95 W	70+ 95 W	100+R 53	80+M 131 W
12	70+ 95 W	70+[2] 95 W	70+ 95 W	150+R 79	150+R 79
MAX. BPV:	236	236	284	284	284

[1]: All BPV are for plentiful ammo. Decrease BPV by 10% (FRD) for normal ammo, or by 25% (FRD) for scarce ammo.
[2]: PTO only. Treat as "100+" (BPV: 158 S) for North Africa.
M: Battalion mortar OBA (C1.22).
R: Rocket OBA (C1.9).
S: Can fire SMOKE.
W: Can fire WP but not Smoke.
†: OP tank possibly available (1.46).

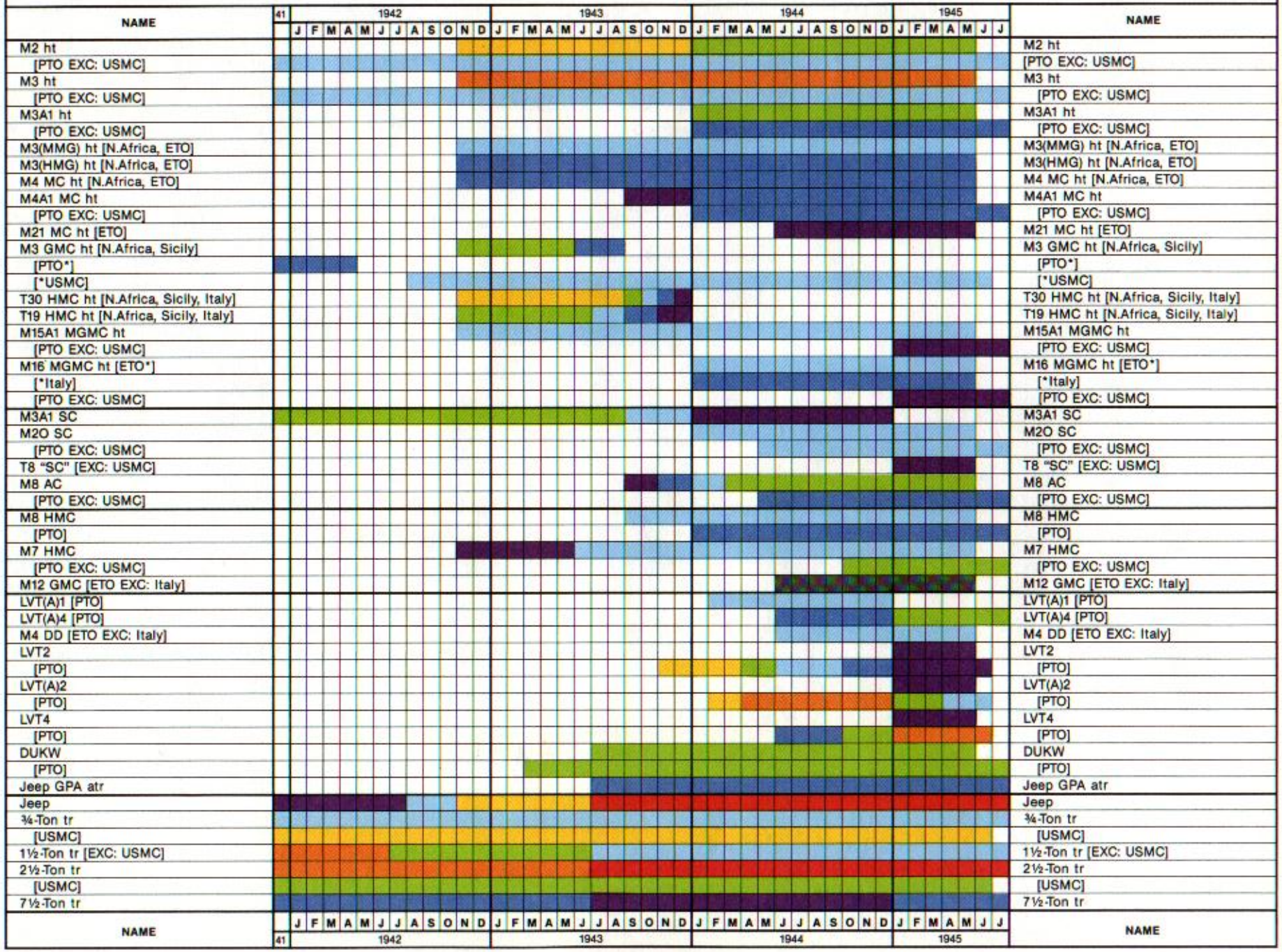
U.S. VEHICLE RARITY FACTOR CHART

.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6



U.S. VEHICLE RARITY FACTOR CHART

.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6



U.S. ORDNANCE RARITY FACTOR CHART

.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6

NAME	41	1942												1943												1944												1945						NAME
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	
M19 60mm Mortar																																												M19 60mm Mortar
M1 81mm Mortar																																												M1 81mm Mortar
M2 4.2-in. Mortar [ETO]																																												M2 4.2-in. Mortar [ETO]
[PTO EXC: USMC]																																												[PTO EXC: USMC]
T25 155mm Mortar [PTO]																																												T25 155mm Mortar [PTO]
M3A1 37mm AT Gun																																												M3A1 37mm AT Gun
[PTO]																																												[PTO]
M1 57mm AT Gun [ETO]																																													M1 57mm AT Gun [ETO]
[PTO EXC: USMC]																																													[PTO EXC: USMC]
M5 3-in. AT Gun [ETO*]																																												M5 3-in. AT Gun [ETO*]
[*Italy]																																												[*Italy]
T32 37mm Manpack Gun [Italy]																																												T32 37mm Manpack Gun [Italy]
[PTO]																																													[PTO]
M18 57mm RCL Rifle [Germany]																																												M18 57mm RCL Rifle [Germany]
[Okinawa]																																													[Okinawa]
M20 75mm RCL Rifle [Germany]																																												M20 75mm RCL Rifle [Germany]
[Okinawa]																																													[Okinawa]
M1A1 75mm Pack Howitzer																																												M1A1 75mm Pack Howitzer
[PTO]																																													[PTO]
M1897A2 75mm Gun [PTO]																																													M1897A2 75mm Gun [PTO]
M2A1 105mm Howitzer																																													M2A1 105mm Howitzer
M3 105mm Howitzer																																													M3 105mm Howitzer
[PTO EXC: USMC]																																													[PTO EXC: USMC]
M1 4.5-in. Gun [ETO*]																																												M1 4.5-in. Gun [ETO*]
[*Italy]																																													[*Italy]
M1918 155mm How. [N.Af., Sicily, Italy]																																												M1918 155mm How. [N.Af., Sicily, Italy]
[PTO]																																													[PTO]
M1 155mm Howitzer																																													M1 155mm Howitzer
[PTO*]																																													[PTO*]
[*USMC]																																													[*USMC]
M1918M1 155mm Gun [N.Af., Sic., Italy]																																													M1918M1 155mm Gun [N.Af., Sic., Italy]
[PTO]																																													[PTO]
M1A1 155mm Gun																																													M1A1 155mm Gun
[PTO]																																													[PTO]
M1 8-in. How. [ETO*]																																													M1 8-in. How. [ETO*]
[*Italy]																																													[*Italy]
[PTO EXC: USMC]																																													[PTO EXC: USMC]
M51 .50-cal. MGC [EXC: USMC]																																													M51 .50-cal. MGC [EXC: USMC]
M1A2 37mm AA Gun																																													M1A2 37mm AA Gun
[PTO]																																													[PTO]
M1 40mm AA Gun [ETO*]																																													M1 40mm AA Gun [ETO*]
[*Italy]																																													[*Italy]
[PTO]																																													[PTO]
M3 3-in. AA Gun [PTO]																																													M3 3-in. AA Gun [PTO]
M1A1 90mm AA Gun																																													M1A1 90mm AA Gun
[PTO]																																													[PTO]
M2 90mm AA Gun [ETO*]																																													M2 90mm AA Gun [ETO*]
[PTO, *Italy]																																													[PTO, *Italy]
NAME		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	NAME
	41	1942												1943												1944												1945						

.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6



BRITISH VEHICLE NOTES

In the 1930s, the British, who had started the whole idea of tank warfare and formulated many of the theories which the Germans later turned into the Blitzkrieg concept, forsook their lead in tank design and the development of armored forces. Indeed, at the time of the Munich crisis in 1938, Britain possessed not a single modern gun-armed tank. This was the result of several factors: the financial austerities of the times; the innate conservatism of certain powerful individuals in the Army; and the high priority given to the Army's role in policing the Empire (for which only light tanks with MG were required). Even as rearmament began, the schism in tank doctrine caused by disagreement over the tank's true function in combat remained unresolved. Three different roles were seen for tanks: reconnaissance, for which the current light tanks would (in theory) suffice; mobile operations, during which the new class of fast, gun-armed but lightly armored Cruiser tanks would engage in pursuit and exploitation in much the same manner as cavalry had in the past; and infantry support, for which slow but heavily armored tanks were being produced. The manufacture of MG-armed light tanks ended when their poor survivability on the modern battlefield became manifest. However, the dichotomy of Cruiser and Infantry tanks, which caused needless dispersion of effort in design and production, and which complicated supply and tactical coordination, lasted until the war's end.

Many early-war British tank designs suffered from unreliability due to being put into production without adequate testing beforehand. This occurred during the hasty rearmament of the late '30s, and again in the frantic months after Dunkirk when, after the loss of over 700 tanks in France, only a few hundred remained in all of Britain. Another factor affecting British tank design was the country's railway gauge, which limited the maximum permissible width of a tank. This restricted the size of the turret ring, in effect rendering the tank incapable of carrying a large-caliber, high-velocity gun such as the 17pdr. On the positive side, Britain led the way in the development of specialized armor such as DD tanks, bridgelayers, mine-clearing tanks and the multi-purpose AVRE. These vehicles, which collectively were known as "Funnies", were Britain's major contribution to armored warfare during WW2.

The British built an estimated 33,000 tanks in the 1936-45 period, including some 2,800 produced in Canada and Australia during the war; however, a number of models (amounting to over 5,000 vehicles) never saw action due to their premature obsolescence and/or chronic unreliability. Total British (only) tank production in the years 1940-45 amounted to some 24,800 vehicles. Between 1938 and 1945 the British also built an estimated 46,000 AFV of other types, including the output of Canada, India and and South Africa but excluding tracked Carriers. Of these, about 36,000 were AC, SC, LRC and wheeled Carriers—highlighting the fact that during WW2 the British made far greater use of wheeled AFV than did any other nation. The U.S. Lend-Leased 27,755 tanks and at least 20,000 other AFV to the various "British" forces/countries.

A short glossary is given below to aid those who may be unfamiliar with the British terms used in the Vehicle and Ordnance Notes. Note that the explanations have been intentionally generalized; in many cases exceptions to them do exist, but have been ignored here.

A#: A War Office ordnance designation assigned to a tank design.

(Army) Tank: A term which, when preceding "brigade", "battalion", etc., indicated that the unit in question was equipped with Infantry tanks.

BEF: British Expeditionary Force—the force sent to France subsequent to Britain's declaration of war on Germany.

Brigade: Equivalent to U.S. "regiment".

Cruiser Tank: A tank designed for the pursuit and exploitation role.

CS: An AFV (usually a tank) carrying a low-velocity gun which fired only HE/smoke, designed for the Close Support of other AFV.

Infantry ("I") Tank: A tank designed for the support of infantry in the assault.

Recce: Another term for "reconnaissance".

Regiment: This has several meanings. It can refer to a parent administrative (as opposed to combat) entity—e.g., the Durham Light Infantry Regiment, the Royal Regiment of Artillery, the Royal Tank Regiment, the Reconnaissance Regiment. However, when used in reference to a specific type of combat unit—e.g., a tank or AA regiment—it is equivalent to the U.S. "battalion". Its use in the latter sense was largely confined to armored, recon, cavalry, and artillery (including AA and AT) units.

RTR: Royal Tank Regiment. When preceded by a number (#), read it as "# Battalion of the Royal Tank Regiment".

Section: When used in reference to an infantry unit, it is equivalent to the U.S. "squad".

Squadron: Equivalent to U.S. "company".

Troop: Equivalent to U.S. "platoon", except when used in reference to artillery in which case it is equivalent to U.S. "battery".

[Note: ETO stands for European Theater of Operations, which in game terms comprises Europe and the Mediterranean islands. NWE stands for Northwest Europe, which in game terms comprises France, Germany and the Low Countries. PTO stands for Pacific Theater of Operations, which in game terms equals "vs Japanese". The term "British" is used as defined in A25.4 unless noted otherwise—though it does not generally apply to Free French in the ETO, where for the most part they were organized and equipped like U.S. forces.]



1. *Light Tank Mk VIB & Mk VIC:* The Mark VI series formed the bulk of British armored strength in 1939-40. Although intended for colonial duties and as recon vehicles, they were often forced to act as battle tanks—with predictably heavy casualties. The Mk VIB was numerically the most important model, with 832 produced. Its armament consisted of two water-cooled Vickers MG, one .50-cal and one .303-cal. The end of production in 1940 included 100+ Mk VIC, which carried a 15mm MG and a .303-cal MG, both air-cooled. In all, about 1180 of the Mk VI series were built. Small production runs of other light tanks preceded the Mk VI, but they saw little combat. Mk VI types were used in troops of three in the light tank squadrons of armoured and light tank regiments, and in the divisional cavalry regiments in the BEF. Four Mk VI were included in the HQ of both a light tank squadron and an Army Tank battalion, and one was allotted to the HQ of each Army Tank company. Mk VI models other than the VIC fought in Belgium, France, North Africa, and in other areas including Greece (4/41, with the 4th Hussars), Crete (5/41, with a squadron of the 3rd Hussars), Syria (6-7/41, with the Australian 6th and 9th Divisional Cavalry Regiments), Singapore (2/42, with the 18th Infantry Division), and Java (3/42, with C Squadron of the 3rd Hussars). The Mk VIC was used in combat only by the 1st Armoured Division in France; at least some of that division's armoured regiments allotted one Mk VIC per light tank troop.

†When using the AP To Kill Table for the *Mk VIB*, make two To Kill DR—one each on the 12.7 and MG columns; only one DR (firer's choice) is used. This is indicated by "2 TK DR (1 12.7; 1 MG)" on the VIB counter.

† *Mk VIB* Dates and RF for ETO use are 5-6/40 (Belgium and France; 1.0), 4/41 (1.1), and 5/41 (1.4); for North Africa they are 6/40-3/41 (1.0), 4/41 (1.1), 5-6/41 (1.2), 7-8/41 (1.3), 9-10/41 (1.4), and 11-12/41 (1.5); for Syrian use they are 6-7/41 (1.4); for PTO use they are 2/42 (1.5) and 3/42 (1.2). *Mk VIC* Dates and RF are 5-6/40 and 1.3.



2. *(A17) Tetrarch & Tetrarch CS [Light Tanks Mk VII & Mk VII CS]:* Intended as the replacement for the Light Tank Mk VI, the Tetrarch entered production in 1940. However, at about that time it was decided that armored cars—not light tanks—would be used for reconnaissance, so only 171 Tetrarchs were built. A small number (probably about 10%) had, instead of the normal 2pdr MA, a 3-in. howitzer for the CS role. A Tetrarch was the first tank to be fitted with the Duplex Drive (DD) propulsion system. Tetrarchs were first used in action in Madagascar, by a Special Service Tank Squadron; thereafter they were held in reserve for airborne use, with the Hamilcar glider being designed specifically to transport them. One Tetrarch squadron of the 6th Airborne Armoured Reconnaissance Regiment was air-landed in Normandy on the evening of 6 June 1944, and the same unit used them in Operation Varsity, the airborne assault across the Rhine in March 1945. (though these were the only times Tetrarchs saw combat, their Dates have been extended to make them somewhat more available for DYO use.) 20 Tetrarchs were sent to the USSR in 1941.

†*Tetrarch* Dates and RF are 5/42 (1.3) and 6/44-5/45 (1.6) [EXC: 1.5 for 6/44 and 3/45]. *Tetrarch CS* Dates are the same.

BRITISH VEHICLE LISTING

#	Name & Type	®	WGT	BPV	RF	Dates	Size	AF	TA	OT	CS	MP	GP	GT	MA	ROF	B#	IF	BMG	CMG	AAMG	SA	Am	s#	sD	PP/T#	Notes
6	Mark VIB *Tt*		5.5	35	1.0-1.5†	36-3/42†	+1	1			3	18	L	ST	CMG†	1				10					6		1†,N,P
3	Mark VIC *Tt*		5.5	36	1.3	5-6/40	+1	1			3	18	L	ST	T15	1(6)	11			4					6		1†
3	Tetrarch *LT*		7.5	42	1.3-1.6†	5/42-5/45†	+1	1	+FSR		3	21	L	ST	T40L	1				4					6		2†
1	Tetrarch CS *LT*		7.5	33†[1]	1.6	5/42-5/45†	+1	1	+FSR		3	21	L	ST	T76*†[1]					4			HE9†[1]	†[1]	6		2†,S†[1]
6	Stuart I(a) *LT*		12.5	41	1.1-1.3†	11/41-5/43†	0	4/3	+SR		4	18		ST	T37LL	1			2	4	2				5		3†,A,N,P
6	Stuart III(a) *LT*		13	43	1.4-1.2†	10/42-45†	+1	4/3	+SR		4	18		ST	T37LL	1			2	4	2		HE[4]+;C6[4]+†[1]		5		3†,A,C†[1],G,N,P
6	Stuart V(a) *LT*		14.5	46	1.3-1.2†	44-5/45	+1	6/3	+SR		4	17		ST	T37LL	1			2	4	2		C6†[1]		5		4†,A,C†[1],G
3	Locust(a) *LT*		7	43	1.6	1-5/45	+1	3/1	+SR		3	19	L	ST	T37LL	1				4			C6†		6		5,A,C†
6	A9 *MT*		13	43	1.0-1.5†	39-41	0	1			5	14		T	T40L	2			4×2†	6	Opt2†[1]				6		6†,K†[1],N
2	A9 CS *MT*		13	27	1.3-1.6†	39-41	0	1			5	14		T	T94*†[2]				4×2†	6	Opt2†[1]			†[2]	6		6†,K†[1],N,S†[2]
6	A10 Mk IA *MT*		14.5	40†[1]	1.1-1.5†	40-41†	0	3			5†	10		T	T40L	2			Opt2†	4or6†[1]	Opt2†[2]				6		7†,B†[1],K†[2],N
3	A10 Mk IA CS *MT*		14.5	24	1.4-1.6†	12/40-41	0	3			5†	10		T	T94*†[2]				Opt2†	4	Opt2†[1]			†[2]	6		7†,K†[1],N,S†[2]
3	A13 Mk I *MT*		14	42	1.1	39-6/40	0	1			4	16		T	T40L	2				6	Opt2†				6		8,K†
6	A13 Mk II *MT*		15	43†[1]	1.0-1.3†	40-41†	0	3/2	+SR		4	16		T	T40L	2				4or6†[1]	Opt2†[2]				6		8†,B†[1],K†[2],N
2	A13 Mk II CS *MT*		15	26	1.3-1.5†	40-41†	0	3/2	+SR		4	16		T	T94*†[2]					4	Opt2†[1]			†[2]	6		8†,K†[1],N,S†[2]
6	Crusader I *MT*		19.5	45	1.0-1.5†	6/41-5/43	+1	4/3	+SR		5	15		T	T40L	2			2†	4	Opt2†[1]				sM8		9†,K†[1],N
2	Crusader I CS *MT*		19.5	35	1.4-1.6†	6/41-5/43	+1	4/3	+SR		5	15		T	T76*†[2]	1			2†	4	Opt2†[1]		HE9	†[2]	sM8		9†,K†[1],N,S†[2]
6	Crusader II *MT*		19.5	46	1.0-1.1†	11/41-5/43	+1	4/3	+FSR		4	15		T	T40L	2				4	Opt2†[1]				sM8		9†,K†[1],N
2	Crusader II CS *MT*		19.5	36	1.3-1.4†	11/41-5/43	+1	4/3	+FSR		4	15		T	T76*†[2]	1				4	Opt2†[1]		HE9	†[2]	sM8		9†,K†[1],N,S†[2]
6	Crusader III *MT*		20	51	1.6-1.2†	7/42-5/43	+1	4/3	+FSR		3	15	H	ST	T57L†[1]	1				4			HE7[F3]+†[1]		7;sM8†[2]		10†,N,Y†[1],Z†[2]
6	Grant(a) *MT*		28	66	1.0-1.6†	5/42-45†	−1	8/4	+FSR		6	13		T-NT	T37LL	1†	11†		2†	4		B75†	HE[4]+;C5[4]+†[1]	8†	sM8		11†,A,C†[1],G,N,P
6	Lee(a) *MT*		28	64	1.6-1.0†	6/42-45†	−1	8/4	+SR		7	13		T-NT	T37LL	1†	11†		2†	4	Opt2†	B75†	HE[4]+;C5[4]+†[1]	8†	6		11†,A,C†[1],G,N,P
6	Sherman II(a) *MT*		30.5	68	1.0-1.3†	10/42-5/45†	−1	11/4	−F/+SR		5	13		T	T75	1†[1]			2	4	Opt4†[2]			8;WP6[3]+†[3]	6		12†,A,G,K†[2],N,R†[1],W†[3]
6	Sherman III(a) *MT*		31	68	1.4-1.0†	10/42-5/45†	−1	8/4	+SR		5	14		T	T75	1†[1]			2	4	Opt4†[2]			8;WP6[3]+†[3]	6		13†,A,G,K†[2],N,R†[1],W†[3]
6	Sherman V(a) *MT*		30.5	67	1.3-.9†	7/43-45†	−1	8/4	+SR		5	13		T	T75	1†[1]			2	4	Opt4†[2]			8;WP6[3]+†[3]	6		14†,A,G,K†[2],P,R†[1],W†[3]
6	Sherman IIA(a) *MT*		32	75	1.5-1.1†	9/44-5/45†	−1	11/4	−F/+SR		6	13		T	T76L	1			2	4	Opt4†[1]		A4[4]/5[3]	5[3]	sM8		15†,A,G,K†[1]
3	Sherman IIC(a) *MT*		33	77	1.3-1.6†	6/44-5/45†	−1	11/4	−F/+SR		5	13		T	T76LL	1				4	Opt4†[1]		HE7;D5[3]/6[3]†[2]		sM8		16†,A,J†[2],K†[1]
3	Sherman VC(a) *MT*		33	76	1.1-1.5†	6/44-5/45†	−1	8/4	+SR		5	13		T	T76LL	1				4	Opt4†[1]		HE7;D5[3]/6[3]†[2]		sM8		16†,A,J†[2],K†[1]
2	Sherman IB(a) *MT*		31.5	71	1.5-1.3†	10/44-5/45†	−1	11/4	−F/+SR		6	13		ST	T105				2	4	Opt4†[1]		H9	7;WP9	sM8		17†,A,K†[1]
3	Centaur IV *MT*		29	61	1.4	6/44	0	6/4	+FSR		5	13	H	T	T95*	1				4			H6	9	7;sM8†		18,S,Z†
6	Cromwell IV *MT*		28	72	1.1-1.2†	6/44-5/45	0	6/4	+FSR		5	18		T	T75	1			2	4				8;WP6	7;sM8†[1]		19†,Z†[1]
2	Cromwell VI *MT*		28	68	1.3-1.4†	6/44-5/45	0	6/4	+FSR		5	18		T	T95*	1			2	4			H6	9	7;sM8†[1]		20†,S,Z†[1]
6	Cromwell VII *MT*		28.5	73	1.2-1.3†	6/44-5/45	0	8/4	+FSR		6	16		T	T75	1			2	4				8;WP6	7;sM8†		19†,Z†[1]
2	Cromwell VIII *MT*		28.5	69	1.4-1.5†	6/44-5/45	0	8/4	+FSR		6	16		T	T95*	1			2	4			H6	9	7;sM8†[1]		20†S,Z†[1]
3	Challenger *MT*		33	71	1.6-1.4†	8/44-5/45	−1	6/3	+FSR		6	15		ST	T76LL					4			HE7;D5[3]/6[3]†[1]		7;sM8†[2]		21†,J†[1],Z†[2]
6	Comet *MT*		36	77	1.3	4-5/45	0	8/4	+FSR		6	15		ST	T77L	1			2	4					7;sM8†		22,Z†
2	Sher. Dozer(a) *MTv*		31	70	1.6-1.4†	9/44-45†	−1	11†/4	−F/+SR		5	12		T	T75	1†[1]				4	Opt4†[2]			8;WP6	6		23†,A,G,K†[2],P,R†[1]
3	Sher. Crab(a) *MTv*		33	70	1.3	6/44-5/45†	−1	8/4	+SR		5	12		T	T75	1†[1]				4	Opt4†[2]	†		8;WP6	6		24†,A,G,K†[2],P,R†[1]
6	Matilda I *HTt*	®	11	26†[1]	1.3	38-5/40	+1	6			2	6†	L	1MT	CMG†	1				4or6†[1]					5		25†,B†[1]
6	Matilda II *HT*		27	51†[1]	1.1-1.6†	40-45†	0	11/8	−F		5	9†	H	T	T40L	2				4or6†[1]	Opt2†[2]				6		26†,B†[1],K†[2],N,P
2	Matilda II CS *HT*		27	41†[1]	1.3-1.6†	5/41-45†	0	11/8	−F		5	9†	H	T	T76*†[2]	1				4	Opt2†[1]		HE9†[2]	†[2]	6		26†,K†[1],N,P,S†[2]
6	Valentine II *HT*		16.5	42	1.0-1.3†	11/41-5/43†	+1	6	+F		4	10	L	ST	T40L	1				4					sM8		27†,N
3	Valentine V *HT*		17	45	1.1-1.4†	11/42-5/43	+1	6	+F		4	10		T	T40L	2				4	Opt2†[1]				sM8		28†,K†[1],N[T]
3	Valentine VIII *HT*		17.5	49	1.5	3-5/43	+1	6/4	+FSR		4	10		ST	T57L	1							HE7		6		29,N[T]
2	Valentine XI *HT*		17.5	60	1.5	10/44-5/45	+1	6/4	+FSR		4	10		ST	T75					4				8;WP6	8		30
2	Churchill I *HT*		39	57†[2]	1.3-1.5†	8/42-44†	−1	11/8			7	10		T-NT	T40L	1†				4		B76*†[2]	HE9†[2]	†[2]	5[4];sM8†[1]		31†,N[T],S†[2],Z†[1]
6	Churchill IV *HT*		40	65	1.6-1.0†	8/42-5/45†	−1	11/8	−F		7	9		T	T57L†[1]	2	11		2	4			HE7[F3]/8[4]+†[1]; D6[4]/7[3]†[2]		6[4]+;sM8†[3]		32†,J†[2],N,Y†[1],Z†[3]
2	Churchill V *HT*		40	66	1.3-1.6†	5/44-5/45†	−1	11/8	−F		7	9		T	T95*	1			2	4			H6	9	7;sM8†[1]		33†,S,Z†[1]
4	Churchill VI *HT*		40	69	1.2-1.4†	5/44-5/45	−1	11/8	−F		7	9		T	T75	1			2	4				8;WP6[3]+†[1]	7;sM8†[2]		34†,W†[1],Z†[2]
6	Churchill VII *HT*		41	73	1.0-1.5†	6/44-5/45†	−1	14/11			7	8		T	T75	1			2	4				8;WP6	7;sM8†[1]		35†,Z†[1]
2	Churchill VIII *HT*		41	70	1.4-1.6†	6/44-5/45†	−1	14/11			7	8		T	T95*	1			2	4			H6	9	7;sM8†[1]		35†,S,Z†[1]
2	Val. Bridgelayer *HTv*		19.5†	40	1.2-1.3†	9/43-45†	+1	6			2	8†			†		X12†								7		36†,M,P
2	Chur. Bridgelayer *HTv*		41.5†	50	1.2-1.5†	5/44-5/45	−1†	11/8			2	8†			†		X12†								7		36†,M
6	Chur. AVRE *HTv*		41†	75	1.2-1.3†	6/44-5/45†	−1	14/11	−FSR		8	8†		T	T200†		//	•	2†	4					7;sM8†[1]		37†,Z†[1]
4	Chur. Crocodile *HTv*		47.5	120	1.3-1.1†	6/44-5/45†	−1	14/11			7	7†		T	T75	1	X12†			4		BF36		8;WP6	7;sM8†[1]		38†,Z†[1]
3	Deacon *TD*		12	40	1.4	10/42-5/43	−1	2/2/★T†	+F	•†	5	16†[1]	H	T†	T57L†	3							HE7[F3]+†[2]				39†,N,L†[1],Y†[2]
4	Wolverine(a) *TD*		29.5	58	1.3-1.2†	9/43-5/45	0	8/3		•	7	15		ST	T76L	2					4		HE7;A5[3]/6[3]†[2]	5[3]			40†,A,J†[1]
4	Achilles(a) *TD*		29.5	70	1.5-1.2†	6/44-5/45†	0	8/3		•	7	15		ST	T76LL	2					4		HE7;D6[3]/7[3]†[1]				40†,A,J†[1]
4	Archer *TD*		16.5	60	1.3	10/44-5/45†	+1	6/4	−FSR	•	5	12	L	NT	R76LL†	2							HE7;D6[4]/7[3]†[1]		7		41†,J†[1]
4	Daimler *SC*		3	29	1.5-1.2†	5/40-45†	+2	4/1	−F	•	2	37	L		BMG	1			2						4[4]+†		42†,M,N,P
4	Lynx *SC*		4.5	27	1.6-1.4†	7/43-45†	+1	4/1	−F	•	2	31†[1]			BMG	1			2						5		42†,L†[1],M,P
4	Humber *SC*		3.5	30	1.4-1.2†	7/43-45†	+2	2/1	−F		2	35†[1]			AAMG	1	11				2†				4[4]+†	1PP†[2]	43†,L†[1],M,P,BB†[2]
4	Stuart Recce(a) "SC"†		12	35	1.5-1.3†	43-45†	+1	4/3		•	5	19	L		AAMG	1			2		8†					7PP	44†,A,D,N[T],P

#	Name & *Type*	WGT	BPV	RF	Dates	Size	AF	TA	OT	CS	MP	GP	GT	MA	ROF	B#	IF	BMG	CMG	AAMG	SA	Am	s#	sD	PP/T#	Notes
3	Humber III LRC *SC*	3.5	26	1.5-1.2†	11/42-45†	+1	0	+F	•	3	31[3†]			AAMG	1					2	OptBATR†[2]			5		45†,L†,N,P,Q†[2]
3	Otter *SC*	4.5	25	1.6-1.4†	4/43-45†	0	0	+F	•	3	29[3††]			AAMG	1					2	OptBATR†[2]			5		45†,L†[1],P,Q†[2]
3	Morris C9 *AC*	4.5	24	1.3-1.6†	38-7/41	0	0		•	4	23[3†]		ST	TATR†[2]	1				2†... or ...2†[1]					5		46†,N,Q†[2],T†[2],X†[1]
4	Rolls Royce *AC*	4	24	1.2-1.6†	20-5/41	+1	0		•	3	24[1†][1]	H	ST	TATR†[2]	1					2†[3]				5		47†,N,Q†[2],T†[1],X†[1]
4	Marmon-Herr. II ME *AC*	6	26	1.4-1.2†	2-12/41†	0	0	+FSR		4	26[1†][1]	H	ST	TATR†[2]	1				2	4†[3]						48†,L†[1],N,Q†[2],T†[1]
2	Marmon-Herr. IIv *AC*	6	28	1.5-1.3†	6/41-5/43	0	0	+FSR	•	4	26[1†][3]	H	ST	T20L†	2 (4)	11				†[2]						49†,L†[1],N,AA†[2]
4	Marmon-Herr. III MFF *AC*	5	35	1.2-1.5†	12/41-42	0	1/0	+SR		4	26[1†]		ST	CMG	1				4		TATR†[2]					48†,L†[1],P,Q†[2]
4	Marmon-Herr. III ME *AC*	5	27	1.4-1.2†	8/41-5/43†	0	1/0	+SR		4	26[1†][3]		ST	TATR†[2]	1				2	4†[3]						48†,L†[1],N,Q†[2],T†[3]
2	Marmon-Herr. IIIv *AC*	5	30	1.6-1.3†	9/41-5/43	0	1/0	+SR	•	4	26[1†][1]		NT	B47†	2	11				Opt4†[2]						49†,K†[2],L†[1],N,T†[2]
3	Humber II *AC*	7	35	1.3-1.4†	11/41-5/43	0	2/1	−F		3	28[1†]		ST	T15	1 (6)	11			4					6		50†,L†[1],N
4	Humber III *AC*	7	38	1.2-1.5†	10/42-45†	0	2/1	−F		4	28[1†]		T	T15	2 (6)	11			4	Opt2†[2]				6		50†,K†[2],L†[1],N,P
4	Humber IV *AC*	7	45	1.3-1.2†	7/43-45†	0	2/1	−F		3	28[1†]		ST	T37LL	1				4			C6*†[1][2]		6		51†,A,C†[2],L†[1],P
4	Daimler *AC*	7.5	42	1.5-1.2†	7/42-45†	+1	2/1	+SR		3	33		ST	T40L	1				4	Opt2†[1]				6		52†,K†[1],N,P
2	AEC I *AC*	11	42	1.6-1.5†	11/42-5/43	0	6/3	+FSR		3	20[1†][1]		ST	T40L	1				4					sM8		53†,N,X†[1]
2	AEC II *AC*	13	57	1.5	7/43-5/45	0	6/3	−F		4	24[1†]		T	T57L	2				4			HE7[3]/8*[1†][1]; D6[3]/7[3]*[2]		sM8		53,J†[2],X†,Y†[1]
2	AEC III *AC*	13	62	1.3	6/44-5/45	0	6/3	−F		4	24[1†]		T	T75	1				4				8;WP6	sM8		53,X†
3	Staghound I(a) *AC*	14	34	1.5-1.3†	9/43-5/45	−1	4/2	+FSR		5	33[1†]		T	T37LL	2			2	4	Opt2†[2]		C6*†[2]		sM8		54†,A,C†[2],G,K†[2],X†[1]
2	Staghound II(a) *AC*	14	55	1.5-1.4†	5/44-5/45	−1	4/2	+FSR		4	33†[1]		T	T76*†[2]	1				4	Opt2†[2]			9	6		54†,A,K†[2],S†[2],X†[1]
4	Bishop *SPA*	17.5	40	1.5	8/42-43†	−1	6/4	−FSR		5	10		NT	B88†		*11*	•			Opt2†[1]			8			55†,K†[1],N,P
4	Priest(a) *SPA*	23	50	1.5-1.3†	10/42-45†	0	3/1	−F	•	7	14	L	NT	B105	1					4		H6	8;WP7			56†,A,N,P
4	Sexton(a) *SPA*	26	46	1.5-1.3†	6/44-5/45†	0	3/2	−FSR	•	7	14		NT	B88	1					Opt2†[1]			8			57†,A,K†[2]
2	M3 GMC(a) *SPAhr*	9	44	1.6-1.3†	4/43-5/45†	+1	0	+F	•†	4	**19**		NT	B75	1					†[2]			8;WP7[1*†][1]			58†,A,NT,W†[1]
2	Mark VI AA *AATr*	5.5	29	1.6-1.5†	5/42-5/43	+1	1		•	2	18	L	1MT†[1]	CMG†[1]	1	11			8	†[2]						59†,N,O†[1],AA†[2]
2	Crusader AA *AAMT*	19	46	1.4	6-12/44	+1	4/3	−SR	•	**4**	**15**		RST†	T20L†	2 (12)				Opt4†	†[1]				7		60†,AA†[1]
2	M17 MGMC(a) *AAhr*	9.5	66	1.6	1-5/45	+1	0	+F	•†	4	**18**		T	T12.7†	3 (24)†					†[1]						61†,A,F†,AA†[1]
2	Humber AA *AAAC*	7	29	1.6-1.5†	8/42-44	0	2/1	−F	•	2	28[1†]		1MT†[2]	CMG†[2]	1	11			8	†[3]						62†,L†[1],N,O†[2],AA†[3]
2	Staghound AA(a) *AAAC*	12	45	1.5-1.6†	6-12/44	−1	4/2	+SR	•	3	34[1†]		ST	T12.7†	2 (12)†					†[2]						62†,A,F†,X†[1],AA†[2]
5	M5(a) *ht*	8.5	28	1.6-1.2†	10/42-5/45	+1	0	+F	•	5[1†]	**19**			AAMG†[1]	1					Opt4†[1]					15PP/T6	63†,A,I†[1],N
4	M9(a) *ht*	8.5	27	1.5-1.3†	10/42-5/45	+1	0	+F	•	4[1†]	**19**			AAMG†[1]	1					Opt4†[1]					13PP/T6	63†,A,I†[1],N
5	M5A1(a) *ht*	8.5	29	1.3	6/44-5/45	+1	0	+F	•	5†	**19**			AAMG†	2					Opt4†					15PP/T6	63,A,I†
3	M9A1(a) *ht*	8.5	28	1.4	6/44-5/45	+1	0	+F	•	4†	**19**			AAMG†	2					Opt4†					13PP/T6	63,A,I†
5	Carrier A *APC*	4	21[1†]	.9-1.4†	39-45	+2	0		•	3	16	L		BMG	1			2		†				5*†[1]	4PP/T10*†[1]	64†,N,P,U†[1]
5	Carrier B *APC*	4	23[1†]	1.0-1.5†	39-45	+2	0		•	3	16	L		BATR†[1]	1					2				5*†[1]	4PP/T10*†[1]	64†,N,P,Q†[1],U†[1]
5	Carrier C *APC*	4	26[1†]	1.5-1.0†	41-45	+2	0		•	3	16	L		BMG†	1	11		4		2	PIAT[3*†]			5*†[1]	4PP/T10*†[1]	64†,N,P,U†[1]
3	Carrier, MMG A *APC*	4	27	1.3-1.5†	41-45	+2	0		•	3	16	L		BMG	2			4		OptBATR†[1]				5*†[1]	4PP/T10*†[1]	65†,N,P,Q†[1],U†[1]
4	Carrier, MMG B *APC*	4	32	1.3	44-5/45	+2	0		•	4	16	L		AAMG	3					6†				5*†[1]	1PP†[1]	65†,U,BB†[1]
5	Carrier, 2-in. MTR *APC*	4	28	1.0-1.4†	41-45	+2	0		•	3	16	L	NT	B51†						2		IR[2*†]	7		4PP/T10*†[1]	66†,N,P,U†[1]
3	Carrier, 3-in. MTR *APC*	4	31†	1.5-1.1†	11/41-45	+2	0		•	4[1†]	16	L		AAMG	1					2	†				1PP†[2]	67†,H†[1],N,P,U,BB†[2]
6	Priest Kangaroo(a) *APC*	22.5	36	1.5-1.4†	8/44-5/45†	0	3/1	−F	•	7	14	L		AAMG†	2					4					21PP	68†,A,D
6	Ram Kangaroo(a) *APC*	24.5	38	1.5-1.3†	9/44-5/45†	+1	8/4		•	7	14			BMG	1			2		Opt2†[1]					18PP/T-4	68†,A,D,K†[1]
6	White(a) SC *APC*	5.5	24	1.5-1.2†	5/42-5/45†	+1	0	+F	•	4[1†]	28[1]	H		AAMG†[2]	1or2					Opt4†[1]					13PP†/T8	69†,A,I†,N
4	IP Carrier Mk IIA *APC*	5.5	21	1.5-1.2†	5/42-45†	+1	2/1		•	4	27[1†][1]			BMG	1			2							4PP	70†,N,P,X†[1],V
2	IP Carrier Mk IIB *APC*	5.5	21	1.5-1.3†	5/42-45†	+1	2/1		•	4	27[1†][1]			BATR†[2]	1										4PP	70†,N,P,Q†[2],X†[1],V
3	IP Carrier AOV *APC*	6	23	1.4	12/43-45	+1	2/1		•	4	26[1†]			AAMG	1					2	OptBATR†[2]				4PP	70†,P,Q†[1],X†,V
3	IP Carr., 3-in. MTR *APC*	6	33	1.3	12/43-45	+1	2/1		•	5†	26[1†][1]		NT	R76*†[2]	2			Opt2†[1]				IR	8;WP7		1PP†[4]	71†,E†,H†,P,X†[1],BB†[1],V
3	Wasp *APCv*	4.5	45	1.4-1.3†	8/44-5/45†	+2	0	+F	•	**3**	16	L		**BF24**		**X11**				Opt2†[1]				5†	4PP	72†,K†[1],U
2	Badger(a) *APCv*	24.5	49	1.6	2-5/45	+1	8/4		•	**3**	14			**BF24**		**X11**				Opt2†[1]						72†,A,K†[1],M
4	Buffalo Mk II(a) *aAPC*	14	47	1.4-1.5†	10/44-5/45†	−1	I/★†		•	6	**13[3]**	L†	NT	B20L†[3]	3 (6)					4×2†				5†	24PP/T3	73†,A,D,AA†[1]
4	Buffalo Mk IV(a) *aAPC*	14.5	50	1.3-1.4†	10/44-5/45†	−1	I/★†		•	6	**12[3]**	I.†	NT	B20L†[3]	3 (6)			Opt2†[1]		4×2†				5†	39PP	73†,A,D,E†[1],AA†[2]
6	Sherman III DD(a) *aMT*	31	73	1.3-1.4†	6/44-5/45†	−1	8/4	+SR		**5**	14[2]		T	T75	1†[1]				4	Opt4†[2]			8;WP6	6		74†,A,G,K†[2],R†[1]
4	DUKW(a) *atr*	9	24	1.6-1.3†	7/43-45†	−1	★			7[1†]	27[1†][1]			AAMG†[1]	2					Opt4†[1]					29PP	75†,A,D,I†[1],P
4	Terrapin Mk I *atr*	11.5	15	1.4	10/44-5/45	−1	★			7	10[2†]	L													25PP	76,D
6	2pdr Portee *TDtr*	5	34	1.4-.9†	6/40-5/43†	+1	★†			4[1†]	25[1]		T†	T40L	3											77†,H†[1],N,P
4	Morris C9/B *AAtr*	9	44	1.5-1.3†	7/43-45†	0	★			4	24[1]		T	T40L†	3 (8)					†[1]						78†,P,AA†[1]
6	Loyd Carrier *PC*	4.5	13	1.6-.9†	41-45	+2	★			5	16	L													11PP/T9	79†,N,P
6	Quad FAT *tr*	5	14	1.5-1.1†	38-45	0	★			5†	30[1]	L													9PP/T6	80†,N,P
6	15-cwt Truck *tr*	3.5	13	.9-1.4†	35-45	+1	★			5	26[1]														14PP/T9	81,N,P
6	30-cwt Lorry *tr*	4.5	15	1.0-1.5†	35-45	0	★			6	25[1]														21PP/T7	82†,N,P
6	3-Ton Lorry *tr*	7	23	1.5-.9†	39-45	−1	★			7	24[1]														36PP/T-4	83,N,P
6	¾-Ton Jeep(a) *tr*	1.5	15	1.5-1.0†	5/42-45	+2	★			2†	37[1]	L†[1]		AAMG†[1]	1					Opt2†[1]					9PP/T10	84†,A,I†[1],N,P
3	¾-Ton Truck(a) *tr*	3.5	13	1.4	43-45	+1	★			4	32[1]														10PP/T9	85,A,N
3	1½-Ton Truck(a) *tr*	5.5	16	1.3	43-45	0	★			6	28[1]														21PP/T7	85,A,N
3	2½-Ton Truck(a) *tr*	7.5	20	1.5	43-45	0	★			7	28[1]														29PP/T5	85,A,N
2	7½-Ton Truck(a) *tr*	22	20	1.6-1.5†	43-45	−1	★			7	22[1]	H													29PP/T-4	85,A,N



3. *Stuart I(a) & III(a):* These were the designations given to the U.S. M3 and M3A1 Light Tanks. The British, eager to supplement their supply of tanks in the Middle East and recognizing that the M3 in some ways approximated the effectiveness of their own Cruiser tanks, requested in early 1941 that it be Lend-Leased. Although officially named Stuarts, all light tanks of the M3-M5A1 series were commonly called Honeys due to their impressive reliability and handling characteristics. The British made certain changes to their M3, such as deleting the fixed BMG (to increase stowage space), altering certain crew positions and responsibilities, and adding smoke dischargers to some vehicles. Stuarts became the first U.S.-built tanks to see action in WW2 when they took part in Operation Crusader; in that battle they fully equipped the 7th Armoured Division's 4th Armoured Brigade and were used as Cruiser tanks. Thereafter in North Africa their numbers diminished as the increasing armor thickness and gun size of German tanks outpaced the Stuarts' development potential. In early 1942, several regiments newly equipped with Grant tanks each received a squadron of Stuarts whose primary function now became screening and reconnaissance; other Stuarts were attached to various units as escort/HQ vehicles. By the second battle of Alamein (10/42), Stuarts were being used in North Africa only in the 7th Armoured Division's 4th (Light) and 22nd Armoured Brigades, and in the 2nd New Zealand and 9th Australian Divisional Cavalry Regiments. In the PTO, Stuarts retained more of a primary combat role since in many ways they remained superior to the Japanese tanks they occasionally encountered. There they were used first in Burma, by the 7th Armoured Brigade's 7th Hussars and 2nd RTR; then later on Papua by elements of the 2/6th Australian Armoured Regiment; and lastly in India and Burma by the 7th Indian Light, and 45th Indian, Cavalry Regiments. A Stuart troop comprised three such tanks—except in HQ squadrons and in 1942 when "mixed" with Grants, where it had four. The recce troop of a 1944-45 armoured regiment or tank battalion was a special case, comprising eleven or twelve Stuarts.

†*Stuart I* Dates and RF for North Africa are 11/41-3/42 (1.1), 4-5/42 (1.2), and 6/42-5/43 (1.3); for PTO use they are 3-5/42 (Burma only; 1.1) and 12/42-1/43 (Papua only; 1.3). *Stuart III* Dates and RF for North Africa are 10/42-5/43 (1.4); for ETO use they are 1-4/44 (1.4) and 5/44-45 (1.3); for the PTO they are 3/44-45 (India-Burma only; 1.2).

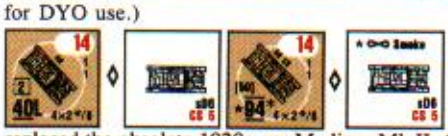


4. *Stuart V(a):* This was the U.S. M3A3 Light Tank (see U.S. Vehicle Note 5). 3,427 were built. Stuarts apparently were not used in the ETO until 1944, after a recce troop had been added in late 1943 to the HQ squadron of each armoured regiment and tank battalion; by mid '44 most armoured recce regiments also had such a recce troop. The Stuart V was the most common model of the series in the ETO. The Yugoslav Partisans received as many as 56 in late 1944, and three Chinese provisional tank battalions equipped with them by the U.S. saw action in northern Burma in 1944-45.

†RF is 1.3 for 1-4/44 and 1.2 thereafter.



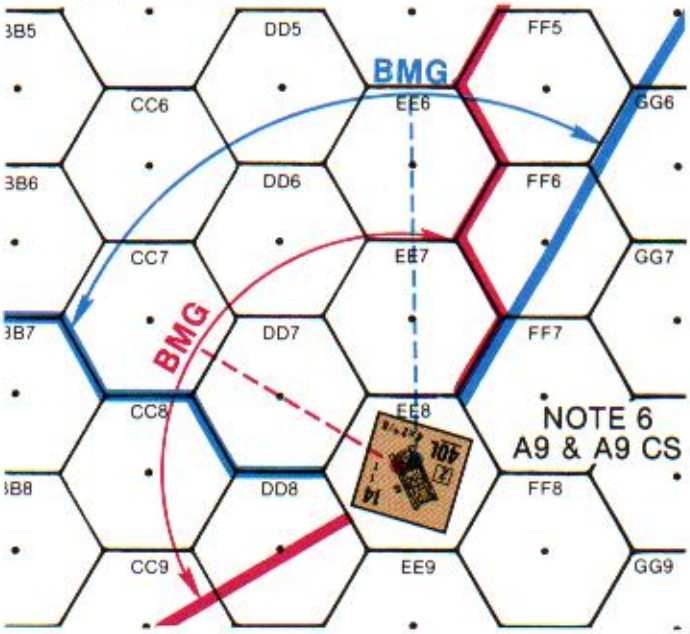
5. *Locust(a):* In February 1941 the U.S. Army issued a requirement for an air-transportable light tank. Eventually a design was finalized, and by 2/44 830 Light Tanks M22 had been built. Unfortunately the Army Air Corps had failed to develop a suitable transport aircraft; consequently the only way the M22 could be air-lifted was to be slung, with its turret removed, beneath the fuselage of a C-54—a rather unsatisfactory way to land in a combat zone. As a result the M22 was never used operationally by U.S. forces. The British however had received some, which they named Locusts, and found that their Hamilcar glider could carry one. In this way a small number (apparently only six) were air-landed with the 6th Airborne Armoured Reconnaissance Regiment during Operation Varsity—the Locust's only combat use in WW2. (However, its Dates have been extended to make it somewhat more available for DYO use.)



6. *A9 & A9 CS [Cruiser Tanks Mk I & Mk I CS]:* The A9, first in the Cruiser tank series, replaced the obsolete 1920s-era Medium Mk II. Cost was a primary consideration in the A9's design, resulting in very thin armor being used. Besides mounting the new 2pdr gun it also carried three Vickers water-cooled MG, one coaxial with the main gun and two in small sub-turrets flanking the driver. 125 were built, including a small number of the CS version with its 3.7-in. howitzer. A9 types were used by the 1st Armoured Division in France in 1940, and by the 3rd RTR in Greece in 4/41. In North Africa they served in the 2nd and 7th Armoured Divisions, and some were with the besieged garrison of Tobruk in 1941. A troop of Cruiser tanks comprised three such AFV (sometimes four in 1944-45; see British Vehicle Note 14).

†BMG factor (4×2) is actually two 4 FP BMG: one in a starboard fore sub-turret and one in a port fore sub-turret. Neither may be Scrounged, but both may fire in the normal manner at targets that lie within this AFV's VCA. In addition, the starboard sub-turret may fire at a target that lies within this AFV's starboard-side front Target Facing, and the port sub-turret may fire within the port-side front Target Facing. See the accompanying diagram. No CA-change DRM apply to such fire [EXC: VCA-change DRM]. *In all AFV with a "#×2" multiple-BMG arrangement, both BMG malfunction, and are repaired or disabled, individually. If the player has no appropriate AFV Card, all such occurrences must be noted on a side record.*

†*A9* Dates and RF for ETO use are 5-6/40 (France; 1.1) and 4/41 (Greece; 1.5); for North Africa they are 6-11/40 (1.1), 12/40-2/41 (1.0), 3/41 (1.1), 4-6/41 (1.2), 7-8/41 (1.3), 9-10/41 (1.4), and 11-12/41 (1.5). *A9 CS* Dates and RF for ETO use are 5-6/40 (France; 1.4) and 4/41 (Greece; 1.6); for North Africa they are 6-11/40 (1.4), 12/40-2/41 (1.3), 3-6/41 (1.4), and 7-12/41 (1.5).

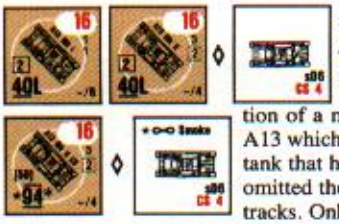




7. *A10 Mk IA & Mk IA CS [Cruiser Tanks Mk IIA & Mk IIA CS]:* The design requirements of the A10 called for an infantry-support tank with thicker armor than the A9, to be built at as low a cost as possible. As a result the A9 was simply modified: Extra armor plates were bolted on, its cramped and disliked MG sub-turrets were replaced by a normal BMG, and its maximum speed was reduced to improve reliability. But by the time the A10 design was ready in early 1938 its armor was considered inadequate for infantry support, so its designation was changed to Heavy Cruiser even though it was really too slow to be effective in the Cruiser role. A production run of 175 was completed: 10 of the A10 Mk I (with a water-cooled CMG), 135 A10 Mk IA (with an air-cooled CMG), and 30 A10 Mk IA CS. They were used more or less interchangeably with A9 and A13 types. Most of the Cruiser tanks sent to Greece in 1941 were A10 types.

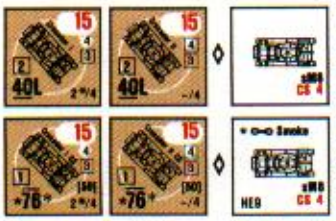
†BMG RF is 1.1. CS number is reduced to 4 if BMG is not present.

†*A10 Mk IA* Dates and RF for ETO use are 5-6/40 (France; 1.3) and 4/41 (Greece; 1.1); for North Africa they are 12/40-2/41 (1.1), 3-4/41 (1.4), 5-8/41 (1.3), 9-10/41 (1.4), and 11-12/41 (1.5). For the *A10 Mk IA CS* in the ETO they are 4/41 (Greece; 1.4); for North Africa they are 12/40-2/41 (1.4), 3-4/41 (1.6), 5-8/41 (1.5), and 1.6 thereafter.

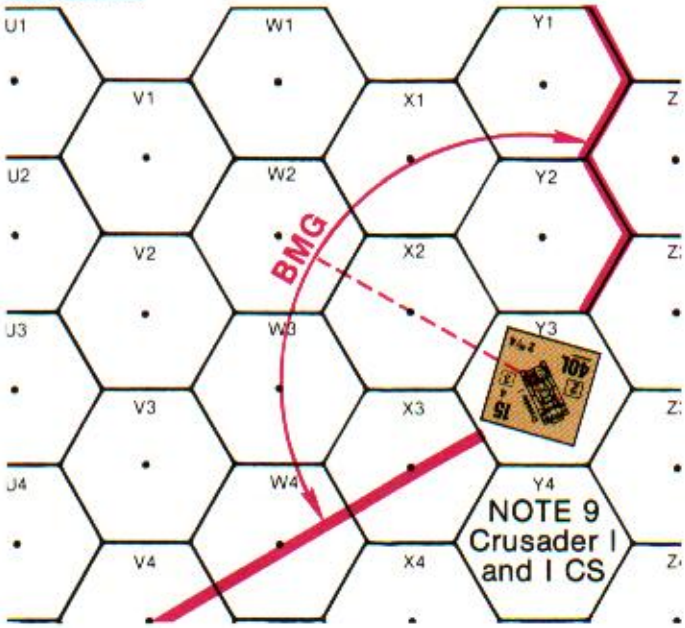


8. *A13 Mk I, Mk II, & Mk II CS [Cruiser Tanks Mk III, Mk IVA, & Mk IVA CS]:* The performance of the Russian BT tank sparked consideration of a much faster Cruiser, resulting in the A13 which was based on the same U.S. Christie tank that had inspired the BT—though the A13 omitted the latter's ability to be driven without tracks. Only 65 of the A13 Mk I were built, with all subsequent models having extra armor plates attached to the hull nose and the turret front and sides. This uparmored version was known as the A13 Mk II—or alternatively as the Cruiser Tank Mk IV or IVA, with the Mk IV having a water-cooled CMG and the Mk IVA an air-cooled CMG. 133 Mk IV and 172 Mk IVA (including a limited number of CS tanks), were built. While somewhat unreliable, the A13 series nonetheless was the design foundation upon which all subsequent Cruisers were based. A13 types were used in the same manner as A9 and A10 in France, Greece and North Africa, forming the striking power of British armoured divisions until replaced by the A15 Crusader.

†*A13 Mk II* Dates and RF for ETO use are 5-6/40 (France; 1.2) and 4/41 (Greece; 1.3); for North Africa they are 12/40-2/41 (1.2), 3-6/41 (1.0), 7-8/41 (1.1), 9-10/41 (1.2), and 11-12/41 (1.3). For *A13 Mk II CS* use in the ETO they are 5-6/40 (France; 1.5) and 4/41 (Greece; 1.5); for North Africa they are 12/40-2/41 (1.5), 3-5/41 (1.3), 6-8/41 (1.4), and 9-12/41 (1.5).



9. *(A15) Crusader I, II, I CS, & II CS [Cruiser Tanks Mk VI, Mk VIA, Mk VI CS, & Mk VIA CS]:* The next Cruiser tank to see action was the Crusader, which was loosely based on the A13 Mk II and the unsuccessful A13 Mk III Covenanter (Cruiser Tank Mk V). It was fast, low-slung, and better armored than its predecessors, but was notoriously unreliable due to having been ordered directly into production in August 1939 without sufficient testing. The Crusader II featured a slight increase in armor thickness, but retained the 2pdr gun which was now obsolete vs the newest PzKpfw III and IV. The Crusader CS carried a 3-in. howitzer. Both the Crusader I and the early Crusader II carried a BMG mounted in a sub-turret that was disliked due to being cramped, poorly ventilated, and often impossible to exit in an emergency; hence it was often removed. For simplicity, all Crusader I counters have this BMG while the Crusader II do not. The Crusader first saw action with the 6th RTR of the 7th Armoured Brigade in Operation Battleaxe—the abortive attempt to relieve Tobruk in June 1941—during which more Crusaders were lost to breakdowns than to combat. Thereafter it became the most numerous Allied tank in the desert until the arrival of Grants and Shermans.



†The BMG, if present, can fire in the normal manner at a target that lies within the Crusader's VCA; in addition, it can fire at a target that lies within the area from the "centerline" of its port side Target Facing to its VCA. See the accompanying diagram. No CA-change DRM apply to such fire [EXC: VCA-change DRM].

†*Crusader I* RF is 1.0 for 6-12/41, 1.1 for 1-5/42, 1.2 for 6/42, 1.3 for 7-8/42, 1.4 for 9-12/42, and 1.5 in 1943. *Crusader I CS* RF is 1.4 for 6/41-5/42, 1.5 for 6-8/42, and 1.6 thereafter. *Crusader II* RF is 1.0 prior to 1943 and 1.1 in 1943. *Crusader II CS* RF is 1.3 prior to 1943 and 1.4 in 1943.



10. *Crusader III:* It was planned to mount the new 6pdr gun in the Cavalier, not the Crusader. However, the failure of the Cavalier design made it necessary to adapt other tanks to carry the gun. Mounting the 6pdr in the Crusader II required that one turret crewman be omitted, thus giving the Crusader III a two-man turret with the tank commander doubling as loader. At the start of the second battle of Alamein, 8th Army had 78 Crusader III available for immediate action. The 6th Armoured Division entered the North African campaign in Tunisia with Crusader III constituting about 40% of its tank strength. 4,350 Crusaders I-III were built, plus another 1,373 special-purpose variants (AA tanks, recovery vehicles, etc.).

†Decrease RF by .1 for each month after 7/42 until 1.3 is reached in 10/42; RF is 1.2 for 1-2/43, and 1.4 for 3-5/43.



11. *Grant(a) & Lee(a):* After the bulk of their modern tanks had been lost in France, the British sent a tank mission to the U.S. in an attempt to obtain the production of British tank designs in American factories. They were informed, however, that only designs accepted by the U.S. Army could be produced in the U.S., although some modifications for British use would be allowed. The mission therefore placed "cash & carry" orders for the M3 Medium Tank straight off the drawing board, but with a new turret of British design. This they named the "Grant", while "Lee" was used for the standard versions of the M3 series (which were Lend-Leased somewhat later). 167 Grants, divided between the 1st and 7th Armoured Divisions, were present at the start of the Gazala battles (the Grant's first use in combat). They provided a nasty surprise to the Germans, for they substantially increased the effective engagement range of British tank units and for the first time gave them an effective HE-firing weapon to deal with A-T guns. The Lee/Grant design had several drawbacks, such as its bulk and the positioning of its 75mm gun in the hull—but nevertheless it at last provided the British with a tank that could engage the German panzers on more even terms; in fact it was sometimes referred to as "ELH" (Egypt's Last Hope). At Gazala the establishment of a Grant-equipped armoured regiment was either two squadrons of Grants and one of Stuarts or one of Grants and two of Crusaders. By the second battle of Alamein some 170-180 Lee/Grants were available for immediate action and their regiments often contained a mixture of Shermans, Grants and Crusaders. After the North African campaign most Lees and Grants were shipped to India and Australia, with some eventually seeing combat again in eastern India and Burma. 1,685 Grants were built, and 1,202 Lees were Lend-Leased to the British. A Lee/Grant troop comprised three such tanks.

†B11 applies individually to both the 37LL MA and 75 SA. The 37LL MA is a T Gun, while the 75 SA is a bow-mounted NT Gun. Either the MA or SA can claim the possibility of multiple-ROF/armor-leader-direction [**ERRATA:** this is also true for the U.S. M3 Medium Tank], but only the one that fires *first* in a phase (treating Defensive First and Final Fire as one phase) can actually use it. Either the MA and SA both have Gyrostabilizer benefits or neither does; i.e., when using H1.42 one dr applies to both Guns.

†Only the 75 SA may fire Smoke ammo—as signified by "s8[75]" on the counter.

†Due to two of the MG that constitute the BMG FP being in fixed mounts and fired remotely, the BMG receives a cumulative +1 DRM to all fire at a moving/Motion target—as signified on the counter by a white dot behind the BMG factor.

†The Lee's AAMG was mounted in a turreted cupola. For game purposes it can be used as a normal AAMG or, while the crew is BU, like a remotely-controlled AAMG (i.e., while BU, it cannot be used vs an Aerial target but can be used in CC). RF for the AAMG is 1.4.



†*Grant* Dates and RF for use in North Africa are 5-6/42 (1.0), 7-12/42 (1.1), 1-2/43 (1.2), 3-4/43 (1.3), and 5/43 (1.4); for India-Burma they are 12/43-45 (1.6). For the *Lee* in North Africa they are 6-7/42 (1.6), 8-9/42 (1.4), 10-12/42 (1.3), 1-2/43 (1.4), and 3-5/43 (1.5); for India-Burma they are 12/43-2/44 (1.5), 3-12/44 (1.1), and 1945 (1.0).



12. *Sherman II(a):* When news of Tobruk's fall on 21 June 1942 reached Churchill, he immediately asked Roosevelt for as many new Shermans as could be made available. In response it was first proposed that Gen. Patton and the entire U.S. 2nd Armored Division should be sent directly to Egypt. Orders to this effect were issued, but were then cancelled when it was learned that, due to the problems inherent in such a move, the division could not arrive there until late in the year—which might well be too late. Consequently, Shermans were taken from units in the U.S. and shipped to Egypt. By the time of the second battle of Alamein, 8th Army had 285 of which some 250 were available for immediate action; about two-thirds of these were Sherman II (the M4A1 Medium Tank). Only 942 Sherman II were Lend-Leased to the British, and its prominence on the battlefield was soon eclipsed by other Sherman types.

†Dates and RF are 10/42-5/43 (1.0); 9-12/43 (1.1); 1-7/44 (1.2); and 8/44-5/45 (1.3).



13. *Sherman III(a):* This was the U.S. Medium Tank M4A2. Of all the 75mm Sherman types available in quantity to the British, they liked the Sherman III best due to its better speed, performance and reliability. About one-third of the Shermans available to the 8th Army at the second battle of Alamein were of this type. 5,041 were Lend-Leased to the British, and another 382 to the Free French.

†RF is 1.4 in 10/42, 1.3 for 11/42-2/43, 1.2 in 3/43, 1.1 for 4-6/43, and 1.0 thereafter.



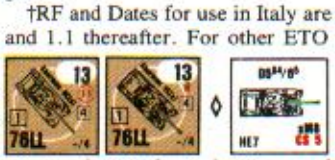
14. *Sherman V(a):* This was the British designation for the U.S. Medium Tank M4A4. This piece also represents the Sherman I (U.S. M4), which is equivalent in game terms, the main difference between the Mk I and Mk V being the type of engine used. 7,499 Sherman V were built, of which 7,413 were Lend-Leased. Of these, 7,167 went to the British, making the Mk V the most numerous Sherman type available to them. Another 274 Sherman V were Lend-Leased to the Free French. 2,096 Sherman I were Lend-Leased to the British. A Sherman troop officially contained three such tanks, but in NWE and Italy most actually had four, with the extra being a Sherman Firefly or Sherman IIA—with the exact configuration dependent on the date and unit. However, a Sherman troop in the armoured recce regiment of the 1st or 6th Armoured Division in Italy comprised two Shermans and two Stuarts (with the latter often being turretless; see British Vehicle Note 44).

†RF for ETO use is 1.1 for 7-8/43, 1.0 for 9/43-4/44, and .9 thereafter. PTO RF and Dates are 1.3 for 12/44-1/45, and 1.0 thereafter.



15. *Sherman IIA(a):* This was the U.S. Medium Tank M4A1(76)W. Almost all those received by the British were sent to Italy, as Montgomery wished to avoid additional supply complications in his 21st Army Group. Eventually, however, some were used in NWE by the 2nd Armoured Regiment of the 1st Polish Armoured Division. Initially in Italy, one Sherman IIA was allotted per tank troop if available, but later it equipped entire troops. 1,330 Sherman IIA were Lend-Leased—all to the British. "A" in the British designation denoted the 76mm gun.

†RF and Dates for use in Italy are 1.3 for 9-11/44, 1.2 for 12/44-2/45, and 1.1 thereafter. For other ETO use they are 1.5 and 11/44-5/45.



16. *Sherman IIC(a) & VC(a):* When it became obvious that the Challenger would not be available in time for the Normandy landings, the Sherman was suggested as an alternative to carry the powerful 17pdr gun. The feasibility of this was doubted, but an experimental installation proved it would indeed work with a minor adaptation of components. Subsequently a rush conversion program produced enough 17pdr-Shermans (nicknamed Fireflies) by June 1944 to provide an average of one per non-DD Sherman troop, and one per Cromwell troop in the 7th Armoured Division's 22nd Armoured Brigade. The Firefly at last gave the British a tank whose gun equalled or bettered those mounted in the majority of German tanks, as well as being superior to all U.S. tank guns. It was often used from an "overwatch" position; i.e., sitting back behind cover, protecting the forward ranks of 75mm Shermans against Tigers and Panthers. The Panzers rightly feared it, and had standing orders to attack Fireflies first in any engagement. The Firefly had neither a BMG nor its corresponding crewman, his position being used to stow extra MA rounds. The most common version of the Firefly was the VC, a converted Sherman V; the next most common types were the IIC and the Hybrid IC (the latter being based on the Sherman I and equivalent to the IIC in game terms). "C" in the British designation denoted the 17pdr gun. In all, about 600 Fireflies were produced.

†Dates and RF for ETO use are 6-12/44 (*IIC:* 1.4; *VC:* 1.2) and 1-5/45 (*IIC:* 1.3; *VC:* 1.1)—except for use in Italy where they are 10/44-3/45 (*IIC:* 1.6; *VC:* 1.5) and 4-5/45 (*IIC:* 1.5; *VC:* 1.4).

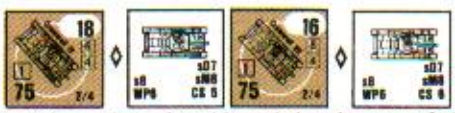


17. *Sherman IB(a):* This was the U.S. Medium Tank M4(105). 593 were Lend-Leased, all to the British who used them only in Italy. They were usually employed as CS tanks (see British Vehicle Note S), often being called upon to provide indirect-fire support. "B" in the British designation denoted the 105mm howitzer.

†Dates and RF for use in Italy are 10-12/44 (1.5), 1-3/45 (1.4), and 4-5/45 (1.3).

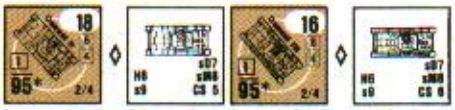


18. *(A27L) Centaur IV [Cruiser Tank Mk VIII]:* Initially, the new engine designed for the Cromwell could not be provided in sufficient quantity, so the old Liberty engine used in the A13 and Crusader was installed in some of the early production models. This version was designated the A27L Centaur. About 950 were built, but the only model to see action in its original form was the Centaur IV. (Many of the other models were eventually converted to Cromwells by retrofitting the latter's 75mm gun and engine.) All 80 Centaur IV built were used by the Royal Marine Armoured Support Group, which was formed specifically to assist selected assault units of the 3rd and 50th British, and 3rd Canadian, Infantry Divisions during the initial stages of the Normandy landings. The Centaurs were to fire from their LCTs during the run-in to the beach, then land to provide close support and on-call indirect fire for 24 hours. In the event, only 21 landed on time and able to engage the enemy; by mid morning 48 (plus 12 Shermans) were ashore, and the last dozen landed on D+1. They provided valuable support and, working with a number of different units, ultimately remained in action for more than two weeks. A troop comprised four Centaur IV plus a 75mm Sherman for the troop commander.



19. *(A27M) Cromwell IV & VII [Cruiser Tank Mk VIII]:* Development of the Cromwell, a distant descendant of (and intended replacement for) the Crusader, began in early 1942. It featured the powerful Rolls Royce Meteor engine (a variant of the famous Merlin aircraft engine used in the Hurricane and Spitfire), and by 1944 carried a 75mm gun derived in part from the 6pdr and specifically designed to fire the same ammunition as the Sherman. It was the fastest British Cruiser tank—though later models were geared down to improve the reliability of the suspension—and numerically was the most important British-built tank in 1944-45. Cromwells equipped the 7th Armoured Division's 22nd Armoured Brigade and the armoured recce regiments of the 7th, 11th, Guards, and 1st Polish Armoured Divisions—all of which fought only in NWE. A troop officially comprised three such tanks, but generally a fourth tank was also present—a Sherman Firefly for a troop in an armoured regiment, or a Challenger for an armoured recce regiment troop. Cromwells also saw limited action in Korea.

†*Cromwell IV* RF is 1.1 in 1944 and 1.2 in 1945. *Cromwell VII* RF is 1.2 in 1944 and 1.3 in 1945.



20. *Cromwell VI & VIII:* These were the CS versions of the Cromwell. They carried a low-velocity 94mm howitzer which was designated 95mm to distinguish it from the weapon used in the older, obsolete CS tanks. The precise number of Cromwells built is no longer known, but would appear to be about 2,050; in addition, many (probably most) Centaurs were converted to Cromwells.

†*Cromwell VI* RF is 1.3 in 1944 and 1.4 in 1945. *Cromwell VIII* RF is 1.4 in 1944 and 1.5 in 1945.



21. *(A30) Challenger:* Originally intended for long-range tank-vs-tank combat in the desert, the Challenger featured a lengthened Cromwell hull and chassis, with the hull center section widened to accommodate the large turret needed to carry a 17pdr. Unfortunately the Cromwell was basically unsuitable for such a powerful gun, and numerous problems and delays were encountered during development. Many of the Challenger's deficiencies were never fully rectified, and concern about this led directly to the concept of the Sherman Firefly. Even after being put into production the Challenger was still not considered truly battleworthy—but its potent armament was needed in combat, so it was issued to the Cromwell-equipped armoured recce regiments of the 7th, 11th, Guards, and 1st Polish Armoured Divisions, in which it was used in the same manner as the Firefly. 200 Challengers were built.

†RF is 1.6 in 8/44, 1.5 in 9/44, and 1.4 thereafter.



22. *(A34) Comet:* This, the last of the Cruiser tanks, was originally envisioned as being merely an improved Cromwell, but ultimately it became an almost total redesign. The Comet's gun, officially called the 77mm, was actually a less powerful version of the 17pdr. This seemingly retrograde step was taken to ensure that the gun would not overstress the vehicle as had been the case with the Challenger. Though it was planned to have the Comet replace the Cromwell in 1944, development and testing took longer than expected, and it did not enter combat until after the crossing of the Rhine. It was used only in the armoured regiments and armoured recce regiment of the 11th Armoured Division, replacing all the Shermans in that division. About 1,200 Comets were built between April 1944 and May 1945. Only a few years after the war they began to be replaced by Centurions, the first six of which had arrived in Germany in May 1945 too late to see combat.



23. *Sherman Dozer(a):* This was the U.S. M4 Tankdozer as used by the British, who often referred to it as the "Sherdozer". The British Army apparently received tankdozers later and in fewer numbers than the U.S. Army. A tankdozer based on the Cromwell was also designed, but since it saw action only in the last two weeks of the war it has not been included in the game.

†For tankdozer usage, see "Bulldozer" in the Index. See U.S. Vehicle Note 18 for the application of "+2 for HH" on the counter.

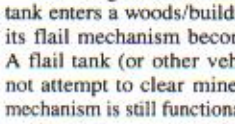
†Dates and RF for use in Italy are 9-10/44 (1.6), 11-12/44 (1.5), and 1-5/45 (1.4); otherwise for ETO use they are 1/45 (1.6), 2/45 (1.5), and 3-5/45 (1.4). For use in Burma they are 4-8/45 (1.6).



24. *Sherman Crab(a):* This is the same mine-clearing vehicle described in U.S. Vehicle Note 20. The British built 689 Crabs between Sept. 1943 and Dec. 1944, and the vast majority were used in the 30th Armoured Brigade of the 79th Armoured Division—though in Italy they were employed in the 51st RTR as part of the 25th Armoured Engineer Brigade. During the Normandy landings, Crabs unintentionally were the first gun tanks ashore on many of the Canadian and British beaches, and the value of their ability to fight as well as flail was immediately proven. A Crab troop comprised five such tanks; generally, three flailed while the other two stood by in reserve, ready to provide covering fire. The common practice in NWE was to allot one or more Crab troops to a local commander when the situation warranted their use; when their mine-clearing tasks were finished, they were withdrawn from his control.

†For usage rules see B28.7-.72 and U.S. Vehicle Note 20. As a flail tank enters a woods/building *obstacle* (even via a TB/Reverse-movement), its flail mechanism becomes disabled for the remainder of the scenario. A flail tank (or other vehicle with special mine-clearing capability) may not attempt to clear mines using Reverse movement. A tank whose flail mechanism is still functional does not suffer Recall due solely to disabled MA.

†Dates for use in Italy are 4-5/45.



25. *(A11) Matilda I [Infantry Tank Mk I]:* This was the first version of what the British referred to as the Infantry ("I") tank, whose sole function was to accompany and support infantry. The design specifications of the Matilda called for it to be small (i.e., inconspicuous) but well armored. A top speed greater than that of infantry was held to be unnecessary. Also of prime importance was that it be inexpensive to manufacture. Series production of the Matilda I began in 1937 and ran to 139 vehicles—77 of which went to France with the 4th and 7th RTR, forming the majority of tank strength in the 1st Army Tank Brigade. They proved nearly impervious to German 37mm A-T guns, but by the end of May all had been destroyed or abandoned. The remaining 63 Matilda I in England were used only for training.

†Minimum road-MP cost is one MP; i.e., it cannot use the ½-MP road rate even if CE—as signified by "Road Rate NA" on the counter.

†Optional 6-FP MA is a 12.7mm MG—as signified by "MA: 12.7" on the counter. See also British Vehicle Note B.



26. *(A12) Matilda II & II CS [Infantry Tank Mk II]:* The Infantry Tank Mk II was faster and more heavily armored than its predecessor, and carried a gun capable of destroying any German tank in use in 1940. It was sometimes called the Matilda Senior while the Matilda I was still in service, but later was referred to simply as the Matilda. Its thick hide and well-protected tracks (which were covered by an outer layer of armor) made it virtually invulnerable to all but the German 88—as was shown in France at the battle of Arras. (Indeed, it is said that the Germans developed APCR directly in response to their experiences with Matildas in France.) In North Africa, after playing a large part in the rout of the Italian 10th Army in late 1940, the Matilda was dubbed "Queen of the Battlefield". In 1941 even German tankers showed a marked reluctance to engage it with anything less than overwhelming superiority—a condition the British called "Matilda-itis". However, its lack of speed in the mobile desert war, its inability to be upgunned and the lethality of the 88 eventually caused its demise. Only 23 were used in France—all in the 1st Army Tank Brigade. Many were used in North Africa, seeing action in the 1st and 32nd Army Tank Brigades. In addition, B Squadron of the 4th RTR used Matildas in Eritrea, and eight fought on Crete with the 7th RTR. Matildas were used in the PTO by the Australians, first on New Guinea, then later on Bougainville and in Borneo; they also developed a FT version, a few of which were used 7-8/45. 2,987 Matilda II types were built.

Throughout the war, a troop (called a section, prior to 1941) of Infantry tanks contained three "I" tanks of the same basic model (e.g., Matilda II *or* Valentines, etc.); CS models were normally found in a fighting troop only in the PTO, where the Australians used one CS and two 2pdr-versions per troop. Very generally, when "I" tanks were available one troop was allotted to each assaulting infantry company. Amazingly, a 1940 Army Tank Brigade—a formation whose sole function was to provide front line armor support for infantry operations—contained not one HE-firing weapon. This was belatedly, but only partially, remedied in early 1941 by the addition of a few CS "I" tanks to each squadron.

†One Matilda variant which saw action after mid 1942 was the *Matilda Scorpion*, an early type of flail tank. 32 were available at the start of the second battle of Alamein, and some were used during the fighting at the Mareth and Wadi Akarit lines. In action they proved rather unreliable due to inherent weaknesses in the flail mechanism. Any Matilda II appearing in a North African scenario in/after 10/42 is a Scorpion (BPV: 56; RF: 1.6). It retains the use of all its armament, and all Flail Tank rules apply. [EXC: A +1 DRM applies to the Mine Clearance DR, and the DR given in B28.7-.72 for each possible result is assumed to be a *Final* DR. In addition, it may not clear wire like the Sherman Crab.] If the use of Vehicle Dust (F11.74) is allowed in the scenario, a +2 gray Dispersed Smoke counter is immediately placed in the Scorpion's Location as it enters a new hex to flail therein (and is removed when it begins its next MPh without a declaration [B28.7] to flail again).

‡Before any type of Immobilization result *due to an attack* [EXC: one caused by mines, or by a Direct Fire hit vs the front or rear Target Facing] takes effect, a subsequent dr must be made. If this dr is ≤ 3, Immobilization occurs; if ≥ 4, it does not. This is signified on the counter by "Immob: dr ≤ 3".

‡*Matilda II* Dates and RF for ETO use are 5/40 (France; 1.4) and 5/41 (Crete; 1.5); for North Africa they are 12/40 (1.1), 1/41 (1.3), 2/41 (1.4), 3/41 (1.5), 4/41 (1.3), 5-12/41 (1.2), 1-4/42 (1.3), 5/42 (1.4), 6/42 (1.5), and 7/42 (1.6); for East Africa (Eritrea) they are 1-4/41 (1.3); for the PTO they are 11/43-2/44 (1.2), and 1945 (1.2). For the *Matilda II CS*, use Matilda II Dates [EXC: the CS version is not available prior to 5/41 nor in Crete] and RF, but increase the RF by .2 for North African use (to a maximum of 1.6), and by .1 for PTO use.



27. *Valentine II [Infantry Tank Mk III]:* The Infantry Tank Mk III, a private venture by Vickers-Armstrong Ltd., was loosely based on the A10 chassis and derived its name from being submitted to the War Office just before Valentine's Day, 1938. Initially deemed unacceptable, in mid 1939 with war imminent it was ordered into production "straight off the drawing board"—and surprisingly proved to be one of the most reliable British tanks of the war. Though designed as an "I" tank it was often used as a Cruiser, in which role it was handicapped by its low speed and poor turret layout. 350 Valentine I were built, but apparently none were sent overseas. 675 Valentine II were built, plus an undetermined number of Valentine IV (which the game piece also represents). The difference between the three models lay solely in the type of engine used. Valentine II and IV made their greatest contribution to the Allied cause with 8th Army in North Africa, where they were used by the 1st and 32nd Army Tank Brigades and the 23rd Armoured Brigade. A small number were also used by a Special Service Tank Squadron in the invasion of Madagascar.

†RF for use in North Africa is 1.3 for 11/41-4/42, 1.1 for 5-6/42, 1.0 for 7-8/42, 1.1 for 9-10/42, 1.2 for 11-12/42, and 1.3 in 1943. Dates and RF for use in Madagascar are 5/42 and 1.1.

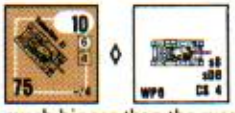


28. *Valentine V:* To overcome the deficiencies of the Valentine's two-man turret, a three-man version entered production around the end of 1941. Those with the new turret were designated Mk III or V depending on the type of engine installed (and are equivalent in game terms). Their main combat use was in Tunisia with the 6th Armoured Division, which used mixed squadrons of Valentine III, Valentine V and Crusader III until re-equipped with Sherman III in March 1943 (at which time the Valentines were turned over to the French Army in Tunisia). In the PTO the three-man-turret Valentine was apparently used just once, with the 3rd New Zealand Division's Special Army Tank Squadron Group during the 2/44 assault on Green Island. 25 Valentine III were employed there, with 9 carrying 3-in. howitzers instead of the standard 2pdr armament—a conversion made by the New Zealanders to give their Valentines a good HE capability.

†Dates and RF for use in Tunisia are 11/42-2/43 (1.1) and 4-5/43 (1.4).



29. *Valentine VIII:* In order to fit the larger and more potent 6pdr gun in the Valentine, its turret had to be redesigned again, causing the loss of both the third turret crewman and the CMG. Production of the 6pdr versions, designated Mks VIII and IX depending on the make of engine fitted (and equivalent in game terms), began in March 1942 but a year passed before any saw combat. 8th Army's employment of a few in Tunisia was apparently their only use in action with British forces. The Mk X was a late-production Mk IX with the CMG restored; however, it seems that none were used in combat by the British. Valentines were the original selection for conversion to DD tanks, and at least 650 of the 6pdr and three-man-turret models were so modified—but in late 1943 it was decided in the interests of standardization to use Shermans instead.



30. *Valentine XI:* The final Valentine production type was the Mk XI, which was identical to the Mk X but carried the British 75mm gun. Being derived from the 6pdr, this gun was not much bigger than the weapon it replaced and was thus able to fit into the Valentine's narrow turret. Valentine XI were used as battery commanders' vehicles in AT regiments equipped with Archers, and apparently also in some equipped with Wolverines/Achilles. A total of 8,275 Valentines were built (inclusive of all variants, and of 1,420 Mks VI-VIIA produced in Canada), making it one of the most important British tanks of the mid-war period. Even so, close to half were sent to the USSR.



31. *(A22) Churchill I [Infantry Tank Mk IV]:* As a precaution against the possible return of WW1-type trench warfare, a requirement was issued in 1939 for a heavy Infantry tank to succeed the Matilda II. The new tank, designated A20, was to have the ability to cross very wide trenches and ground churned up by shellfire. It was not a success, but after Dunkirk it was hurriedly redesigned as the A22 (later officially named the Churchill) and put into immediate production; not surprisingly, the early models suffered from numerous mechanical defects. 303 Churchill I were built. After first seeing combat in the Dieppe debacle, the Mk I was employed as a CS vehicle in the 21st and 25th Tank Brigades in Tunisia and Italy. 1,127 Churchill II were also produced, with a BMG replacing the hull-mounted 3-in. howitzer—but most were either sent to the USSR or rebuilt as Mks III and IV.

†The 40L MA is a T Gun, while the $\overline{76}$* SA is a bow-mounted NT Gun. Either the MA or SA can claim the possibility of multiple-ROF/armor-leader-direction, but only the one that fires *first* in a phase (treating Defensive First and Final Fire as one phase) can actually use it.

†Due to the very limited traverse of the bow-mounted $\overline{76}$* SA, it receives a cumulative +1 DRM when firing at a moving/Motion target [EXC: Infantry expending MF without changing Location]—as signified by a white dot on the counter beside the SA designation.

†Dates and RF for use at Dieppe and in Italy are 8/42 (1.3) and 5-12/44 (1.5) respectively. For use in Tunisia they are 3/43 (1.4) and 4-5/43 (1.3).



32. *Churchill IV:* A new turret had to be designed to mount the 6pdr in the Churchill. Ultimately, two styles were produced: one of welded armor plate and another which was equivalent but made of cast armor. The Churchill III had the welded turret and the Churchill IV the cast version. The Mk III had its baptism of fire at Dieppe. Later, six Mk III were sent to Egypt for desert trials: Termed Kingforce, under the command of 1st Armoured Division they participated in two engagements during the second battle of Alamein, and were then withdrawn for evaluation. Churchill III and IV also saw action in Tunisia and Italy with the 21st and 25th Tank Brigades, and in NWE with the 6th Guards, 31st and 34th Tank Brigades. Prior to April 1945, Churchill squadrons in Italy contained two troops of Shermans. A TD troop was also often attached to a Churchill squadron in the ETO. 675 Mk III and 1,622 Mk IV were built.

†Dates and RF for use in North Africa are 10-11/42 (1.6), 3/43 (1.2), and 4-5/43 (1.1). For NWE use they are 8/42 (1.0), 6-7/44 (1.2), 8/44 (1.1), 9-11/44 (1.2), 12/44-3/43 (1.3), and 4-5/45 (1.4). For use in Italy they are 5-12/44 (1.2) and 1-5/45 (1.3).



33. *Churchill V:* This was a Churchill IV fitted with a howitzer for the CS role. It was used only in tank brigades in the ETO. 241 were built.

†Dates and RF for use in Italy are 5/44-5/45 (1.6). For NWE use they are 6-7/44 (1.4), 8/44 (1.3), 9/44-3/45 (1.4), and 4-5/45 (1.5).



34. *Churchill VI:* As ample supplies of the British 75mm gun became available it was decided to mount it in the Churchill IV, which with this gun was designated Churchill VI. The game piece also represents the Churchill IV as modified in Tunisia by replacing its 6pdr with the 75mm gun and mantlet of a wrecked Sherman. Called the Churchill NA75, about 200 of these were converted; they were used in Italy by the 21st and 25th Tank Brigades.

†Dates and RF for use in Italy are 5-12/44 (1.3) and 1-5/45 (1.4). For NWE use they are 6-7/44 (1.3), 8/44 (1.2), 9-11/44 (1.3), 12/44-3/45 (1.2), and 4-5/45 (1.3).



35. *(A22F) Churchill VII & VIII:* In 1943 a major redesign of the Churchill was undertaken. The resulting Churchill VII, while in external appearance quite similar to its predecessors, in fact contained many improvements beyond its thicker armor. The Churchill VIII was identical to the VII aside from its low-velocity howitzer for the CS role. About 1,600 Mk VII and VIII were built. The Churchill was the second most numerous type of British-built tank in NWE, and was used in the 6th Guards, 31st and 34th Tank Brigades. The Mk VII and VIII appeared in Italy only late in the war, being used there in the 21st Tank Brigade. Some of the earlier Churchill Mks were improved to roughly Mk VII standards by the addition of applique hull armor and, in some cases, the Mk VII turret; designated Mks IX-XI, these have not been included in the game. Total Churchill production was 5,640 vehicles. Since even the Churchill VII's hull was too narrow to accommodate the large turret needed to carry a 17pdr, a widened version called the Black Prince was developed. However, none of the six prototypes produced prior to VE Day saw combat, and the project was later cancelled in favor of the much superior Centurion.

†*Churchill VII* Dates and RF for NWE use are 6-7/44 (1.1), 8/44 (1.0), 9/44-3/45 (1.1), and 4-5/45 (1.2). For use in Italy they are 4-5/45 (1.5). For the *Churchill VIII* use these same Dates and RF, but increase the RF by .4 (to a maximum of 1.6).



36. *Valentine & Churchill Bridgelayers:* These vehicles were converted from Valentine II/III and Churchill III/IV. The Churchill carried a rigid bridge, while the Valentine's "scissors bridge" (as it was termed) was hinged in the middle and carried folded over on itself. Both types were 30 ft. long, and were placed via a series of hydraulically actuated pivoting arms, with the Valentine bridge unfolding as it was laid. Three Valentine or Churchill Bridgelayers were allotted to the HQ of an armoured or tank brigade respectively. Apparently 99 Churchill Bridgelayers were built during the war, of which 25 (plus a few of the Valentine type) were sent to the USSR.

†*Valentine Bridgelayer* RF for ETO use is 1.2; Dates and RF for use in India-Burma are 3-10/44 (1.3) and 11/44-45 (1.2). *Churchill Bridgelayer* Dates and RF for NWE use are 6-7/44 (1.3), 8/44 (1.2), 9/44-3/45 (1.3), and 4-5/45 (1.4); for use in Italy they are 5-12/44 (1.4) and 1-5/45 (1.5).

†A bridgeless Valentine Bridgelayer weighs 13.5 tons, has 11 MP, and its Target Size is +1. A bridgeless Churchill Bridgelayer weighs 36.5 tons, has 10 MP, and its Target Size is 0.

†The following rules apply to both types of Bridgelayer unless specified otherwise.

†*MOVEMENT:* The following apply to a *Churchill* while it is carrying its bridge: it may not use VBM—as signified by "VBM NA" on the counter; if in a Sunken Road hex (B4.), it is treated as being on a one-lane bridge for VCA-change purposes (B6.431).

†*PRC:* Although a Bridgelayer has no armament, it *does* have an Inherent Crew; however, see British Vehicle Note M. A Bridgelayer may carry neither Passengers nor Riders.

†*WRECK:* To indicate a Valentine or Churchill Bridgelayer wreck, use a Valentine II or Churchill VII Wreck counter respectively, and mark it with a Scrounged counter.



†*BRIDGE:* When placed, the bridge is represented by a ⅝" Bridge counter. It is One-Lane (B6.43-.431) and has a normal entry cost of one MF or *four* MP for all units. It is neither an obstacle nor a Hindrance to LOS, and a unit on it is considered to be in Open Ground as if on a road (with no B6.31 TEM).

• *PLACEMENT:* The bridge can be *placed* "across" only a trench, A-T ditch, canal, the shellholes in a hex, or a gully/stream—and only by a Stopped Bridgelayer (whose crew is neither stunned nor shocked) during its MPh at a cost of 8 "delay" MP (expended in one MPh) while it is ADJACENT to the Location "across" which it wishes to place the bridge. This Location must also be within the Bridgelayer's VCA. Only one bridge may be placed per hex, and may be placed across neither an unbreached wall/hedge hexside nor a Depression Hexside. A bridge placed "across" a gully/stream is at its Crest level. A Bridgelayer that becomes immobilized while Non-Stopped (including via an Unbogging DR), or that is Bogged/Mired, cannot place its bridge. The Bridgelayer's owner first announces the placement attempt, then makes an X# DR to check for possible disablement of the Bridgelaying mechanism. If this *Final* DR (see *DESTRUCTION*) is ≥ 12 the bridge cannot be placed and the Bridgelayer is immediately Recalled; on a Final DR of ≤ 11 placement commences, and only then does the AFV begin expending "delay" MP. After thusly expending the 8 MP the bridge is placed; position it such that its "length" is perpendicular to the hexside that is common to both its own hex and that of the Bridgelayer. Once the bridge has been placed, the Bridgelayer is flipped over to its "bridgeless" side and is immediately Recalled; the extra MP gained may be used immediately if the Bridgelayer is otherwise allowed to do so (including having not yet expended ≥ its new MP allotment).

•*DESTRUCTION:* A turret hit vs a Bridgelayer that is carrying its bridge is treated as a bridge hit instead. When such a hit is achieved (or when a DC is Placed "on the turret"; C7.346), a dr is made on the following table to see if damage occurs:

TYPE OF HIT:	AP, HEAT, HE ≤ 57mm[a]	HE 58-99mm[b], DC[c]	HE 100mm+[d], DC[e]
DAMAGED ON dr OF:	1	1-2	1-3

[a] Includes *all* HE Harassing/Barrage OBA.
[b] Includes *all* HE Concentration OBA.
[c] Successfully Positioned (only).
[d] [EXC: OBA].
[e] Optimally Positioned (only).

If damage occurs, make another dr, which yields the +DRM that will modify the X# DR made when placement is attempted. All such +DRM are cumulative even if caused by ≥ one hit. A hit (or DC Placed) on the bridge can affect its carrying Bridgelayer only via a Collateral Attack vs its CE crew [EXC: any CH vs the bridge renders it unplaceable and Recalls the Bridgelayer]. Types of attacks not listed herein cannot damage the bridge while it is on the Bridgelayer. Once the bridge has been placed, B6.33 (with a +2 TEM for the bridge) and B6.332 apply to attacks vs it.

•*COLLAPSE:* A placed bridge can collapse as per B6.42 if the weight of a vehicle on it exceeds 33 tons (for a Valentine bridge) or 66 tons (for a Churchill bridge).



37. *Churchill AVRE:* The Dieppe raid in 1942 emphasized the sappers' need for some kind of armored vehicle to assist with the demolition of obstacles while under fire. The Churchill was chosen for this because of its roomy interior and the large hatches on the sides of its hull. In this role it was designated the Armoured Vehicle, Royal Engineer—or AVRE. Churchill III and IV were used for the conversion, with applique armor added to increase their survivability. A new MA, the Petard spigot mortar, was devised: This short-range 290mm weapon fired a 40-lb. projectile (called the "Flying Dustbin" due to its shape) which was filled with 23 lbs. of plastic explosive and capable of destroying heavy concrete obstacles such as pillboxes and sea walls. The Petard was not loaded from inside the turret; rather, it was hinged outside the turret, and was opened and reloaded by the BMG operator through a special hatch above his head. Inside, the AVRE carried a number of special explosive charges which had to be hand-placed outside the vehicle by one or more of its crewmen, but which could be detonated from within the AVRE. A number of bridging, charge-placing, mine-clearing and mat-laying devices (the latter to help vehicles cross soft beach sand) could be fitted to the AVRE, but perhaps its most important secondary role was as a fascine carrier. A fascine was a bundle of brushwood typically about 8 ft. in diameter and 11-14 ft. long, carried on a special frame over the AVRE's front hull. It was used to fill ditches, bomb craters and small streams so that vehicles could cross them.

180 AVRE were available for the Normandy landings; see British Vehicle Note 74. AVRE were used in NWE by the 1st Assault Brigade, Royal Engineers, of the 79th Armoured Division; and in Italy by the 1st Armoured Engineer Regiment of the 25th Armoured Engineer Brigade. An AVRE troop comprised six such vehicles, but normally this was deployed into two three-vehicle halftroops. 754 AVRE were produced during the war.

†RF for NWE use is 1.2. Dates and RF for use in Italy are 4-5/45 and 1.3.



†*CREW:* The original Inherent crew of an AVRE are also Assault Engineers (H1.22) and Sappers (B28.8). An AVRE starts each scenario Inherently carrying four DC which can take counter form only when that AVRE's original crew voluntarily Abandons it; i.e., when the crew voluntarily takes counter form it can automatically possess ≥ one of those DC. Moreover, as long as an original AVRE crew counter possesses ≥ one of these DC it is considered Fanatic. These DC may not be Thrown, and may be Placed or Set only by an Assault Engineer. In addition to their normal IFT capabilities, these DC may be Set to *Breach* wall/hedge [EXC: bocage] hexsides over which the AVRE crew counter can claim Wall Advantage (even if no enemy unit is present); such an attempt requires the normal all-MF expenditure for Setting a DC, but no US# dr is required. When detonated, a Final KIA breaches the wall/hedge; see "*BREACH*" below for effects [EXC: this DC Breach attempt has no TK/IFT effects]. The crew may detonate its Set DC in the normal manner, *or* while Inherent again in the AVRE provided all other conditions applicable to detonating it are met [EXC: the thusly Inherent crew may detonate it while < two hexes away from it]; if the AVRE expends a Start MP after its crew re-enters it but prior to detonation, the DC is no longer considered Set. If an AVRE's original crew voluntarily Abandons it, taking with them ≥ one of their DC, the AVRE retains an Inherent Driver.

†Use a Churchill VII Wreck counter to depict an AVRE wreck.

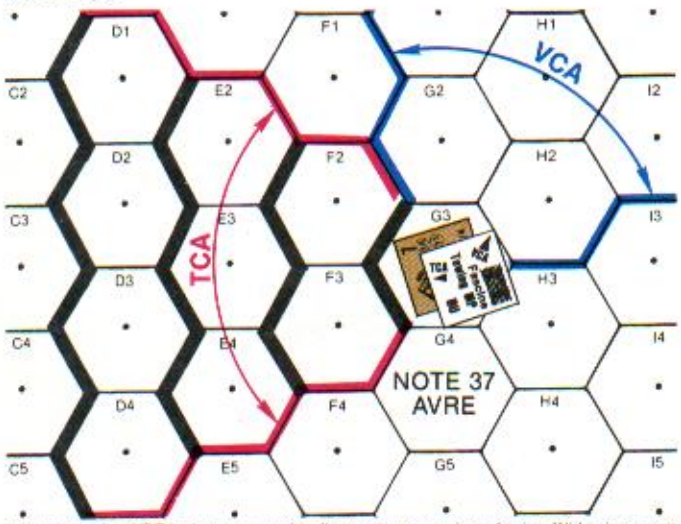
†*MA:* The AVRE's MA uses the C3 To Hit process [EXC: Area Target Type and TH Case L are NA], but its Basic TH# is "12" and each hex of range reduces this number by two. In addition, if the MA fires while the TCA does *not* coincide with the VCA, the TCA then immediately (but after any *simultaneous* Gun Duel shot vs it by an enemy unit), and automatically, changes so that it *does* coincide with the VCA (even if such a Gun Duel shot stuns/shocks the AVRE's crew). An AVRE is not Recalled due solely to MA disablement, provided its crew can still use/detonate

≥ one of its DC. An AVRE's MA has normal HE capabilities, and can also perform the following actions:

•*vs MINES:* The MA can clear mines as per B28.62, provided its TH DR would have hit any concealed enemy Infantry in the mined Location (even if none are actually present).

•*vs PILLBOX:* The MA can eliminate a pillbox. To do so it must fire (or, if the pillbox is unoccupied, must be treated as if it were firing) at Known enemy Infantry in that pillbox [EXC: TH Case E is NA]. An Original KIA on the IFT eliminates the pillbox (and all its contents) *if* that KIA's # is ≥ the pillbox TEM that applied to the TH DR.

• *BREACH:* The MA can Breach a wall/hedge [EXC: bocage] hexside that lies within its TCA and that is *not* parallel to the center hexspine of that TCA, provided the owner declares such an attempt prior to the shot. If the AVRE could claim Wall Advantage over that hexside (even if no enemy unit is present), then its range to that hexside is "zero" and TH Case E is NA; however, such an attack has no effect [EXC: SAN] on anything other than that hexside. Otherwise the MA must fire (or must be treated as if it were firing) at Known enemy Infantry (even if none are present) directly behind that hexside claiming its TEM. The maximum range at which such a Breach may be attempted is limited only by the AVRE's TH ability. An Original KIA on the IFT creates a Breach (in addition to its effects—if any—vs enemy Infantry); thereafter, movement/Manhandling across that hexside are treated as per B9.541. The Breach has no other effect. See the accompanying diagram and example.



EX: Assume the AVRE in the accompanying diagram is not carrying a fascine. Within its current TCA it may attempt to Breach with its MA a wall/hedge that lies along any hexside marked with a thick black bar in the illustration. If the AVRE can claim Wall Advantage and incurs no TH DRM, to hit a wall along hexside F2-G3 or F3-G3 will require an Original TH DR of ≤12 (Basic TH# at zero-hex range, with no wall TEM); if it cannot claim Wall Advantage the same shot will require an Original TH DR of ≤ 8 (10 [Basic TH# at one-hex range, since it must be treated as firing at Known Infantry in F2 or F3 respectively] with a +2 TH DRM [wall TEM]). Vs the Breachable hexsides between hexrows E and F it will require an Original TH DR of ≤ 6 (8 [Basic TH# at two-hex range] with a +2 TH DRM [wall TEM]), etc. The AVRE may attempt to Breach such hexsides beyond the area illustrated.

†*FASCINE:* An AVRE can be designated by scenario OB or DYO purchase as carrying one *fascine*—in which case the reverse side of the AVRE counter (whose artwork depicts a fascine mounted on the vehicle) is used, and a Fascine counter is placed on it. The following apply to an AVRE *while it is carrying a fascine:*

•*WEIGHT & MP:* Its weight is 44 tons, and its MP allotment is 7.

•*BU/CE:* While BU it must pay one extra MP per hex entered, just as if it were towing a Gun (C10.1)—as signified by "Towing MP" on the Fascine counter. Its CE DRM (D5.31) is +1, not +2—as signified by "CE(+1)" on the Fascine counter. If the AVRE becomes BU, flip the Fascine counter to its "BU" side.

•*ARMAMENT:* Its MA cannot fire—as signified by the lack of a Gun Caliber Size on the AVRE counter—but its CMG can. Its BMG receives a cumulative +1 DRM to all fire at a moving/Motion target—as signified on the AVRE counter by a white dot behind the BMG factor.

•*TCA:* Its TCA is considered to be centered on the rearward portside hexspine of its hex; see the accompanying diagram and example. Moreover, this TCA may not be changed relative to the AVRE's VCA (i.e., the turret is immoveable in this position). When placing the Fascine counter on the AVRE, align it to properly indicate the AVRE's VCA and TCA.

EX: An AVRE carrying a fascine has its TCA limited to the one shown in the accompanying diagram.

†*FASCINE USAGE:* A fascine can be *placed* voluntarily only "into" a trench or A-T Ditch, or INTO a shallow/deep stream—and only by a Stopped AVRE (whose crew is neither stunned nor shocked) during its MPh at a cost of one "delay" MP while it is ADJACENT to the Location "into"/INTO which it wishes to place the fascine. This Location must also be within the AVRE's VCA. A fascine placed "into" a trench or A-T ditch Location thereafter allows any vehicle to enter/exit that Location as if it contained foxholes instead; its only effect on Infantry is to force them to leave the trench or A-T ditch (if they are in it) in that Location before they can enter any adjacent Location. *Each* fascine placed INTO a shallow/deep stream Location thereafter provides a −1 DRM to the Bog DR of a vehicle that is exiting that Location to a non-Depression hex. While a vehicle [EXC: motorcycle] is in a placed-fascine Location it negates all fascine benefits in that Location for another vehicle (as does any wreck created in that Location *after* the first fascine is placed there). A placed fascine has no game effect other than those just given.

As an alternative to placement, a fascine can be *dropped* voluntarily. Dropping it (whether voluntarily or not; see below) is accomplished in the same manner as placing it, with the following exceptions: it can also be dropped (at no penalty) during the AVRE's *DFPh* upon the owner's declaration of doing so; it can be dropped in any type of terrain, and; a dropped fascine is immediately removed from play with no effect beyond allowing its AVRE counter to be flipped over (see below).

Any Effects [EXC: mine attack] DR vs a fascine-bearing AVRE which fails *by one* to achieve *any* effect on the AFV Destruction Table causes its fascine to be dropped involuntarily upon an immediately subsequent dr of "1" [EXC: for a FT/MOL attack, *assume* a subsequent dr of "1"].

When a fascine is placed/dropped, that AVRE counter is then (after resolving any Defensive First Fire allowed vs it by MP expenditure) flipped to its non-fascine side: its TCA can, at the owner's option, either remain in the side facing shown in the AVRE diagram or can be instantly changed to coincide with the VCA; the extra MP gained can be used immediately if the AVRE is otherwise able (and allowed) to do so.

Once placed/dropped, a fascine cannot be moved/retrieved in any way—nor can it be set Aflame/Ablaze, targeted individually, or affected by an attack [EXC: it is removed if a Blaze or rubble occurs in its Location, or if the trench/A-T ditch it is "in" is eliminated by OBA]. A fascine is neither an obstacle nor a Hindrance to LOS.

†As a form of optional "armament", a fascine has a RF of .9 and a BPV of 2. Extra fascines (i.e., more than the number of AVRE in the player's OB) may not be purchased.

38. *Churchill Crocodile:* Probably the most famous flamethrowing AFV of WW2, and certainly one of the most fearsome weapons in the Allied arsenal, the Crocodile was a conversion of the Churchill VII. The FT gun replaced the BMG, and a two-wheeled, armored trailer carried the flame fuel and tanks of pressurized-nitrogen propellant, all this equipment being provided in kit form. The FT fuel was a liquid form of napalm which adhered to almost everything it touched, and whose flame was extremely difficult to extinguish. Crocodiles first saw combat on D-Day, with the 141st Regiment of the Royal Armoured Corps. Shortly thereafter, this unit became part of the 79th Armoured Division, which later also incorporated the 1st Fife and Forfar Yeomanry and the 7th RTR—two more Crocodile units. Together these units formed the 31st Armoured Brigade. Crocodiles were occasionally called on to support U.S. units—e.g., during the assault on Brest—and received high praise for their valuable assistance. In Italy, Crocodiles were used in the 51st RTR, which was part of the 25th Armoured Engineer Brigade. In June 1944 a Crocodile troop comprised four such AFV (later sometimes three, depending on the date and unit). About 800 Crocodile kits were produced, but not all were used operationally.

†X# applies only to the SA FT.

†The Crocodile's trailer has an AF of 6, and can be instantly disconnected (even if destroyed) by its non-shocked, non-stunned Inherent crew without need of MP expenditure or losing Motion status. Once the trailer is disconnected, replace the Crocodile with a Churchill VII counter marked with a BMG Disabled counter; the extra MP gained can be used immediately if the AFV is otherwise able (and allowed) to do so. TK Case A never



applies to a trailer. [**ERRATA:** A trailer, regardless of type/towing-vehicle, never leaves a wreck when it is destroyed.]

†Dates and RF for NWE use are 6-9/44 (1.3), 10/44-1/45 (1.2), and 2-5/45 (1.1). For use in Italy they are 4-5/45 and 1.3.



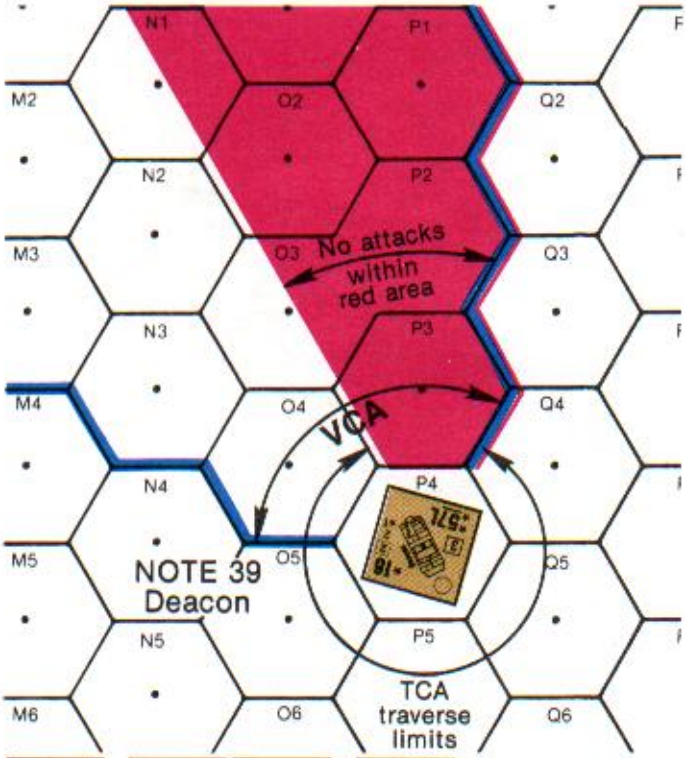
39. *Deacon:* Designed to increase the mobility of AT guns in North African use and to enhance the protection of their crews, the Deacon was an armored version of the AEC Matador MAT (medium artillery tractor) mounting a 6pdr in a partially open turret with a traverse of 319°. In 1942 some were sent to Egypt, where they equipped 1-2 batteries in at least some non-divisional AT regiments and the AT regiments in armoured divisions. Later in that campaign some were also attached to various armoured car squadrons. Deacons, also known as "Yellow Devils", were used successfully on several occasions but were not well liked due to their slow speed and overloaded chassis. 176 were built, but in 1943 and 1944, 42 were converted to armored ammo carriers for Priest SP guns. The remainder eventually were passed on to Turkey. A Deacon troop comprised four such vehicles.

†The MA may not fire at a target that lies within the starboard side of the Deacon's VCA. In addition, the TCA may not move "across" that area when traversing. See the accompanying diagram and example. These restrictions are signified by "Stbd VCA NA" on the counter.

EX: In the diagram, the Deacon can fire at a target in hex N2 or O3 [EXC: not at vertex O3-O2-P2 or O3-P2-P3], or at one in O2 Bypassing along hexside O2-N2. It cannot fire at a target in P1 or P2, nor at one in P3 that is *not* in Bypass along hexside P3-O4. If it wishes to fire at a target in Q2 or Q3, it must traverse its turret counterclockwise; i.e., the turret may not traverse across hexside P4-P3.

†The *turret's* rear Target Facing is unarmored.

†The CE DRM (D5.31) against incoming fire through any *armored* turret Target Facing is +3 instead of the normal +2. This is signified by "CE:+3" on the counter.





40. *Wolverine(a) & Achilles(a):* The Wolverine was the U.S. M10 GMC, and the Achilles was the same vehicle with a 17pdr replacing the original 3-in. gun. Both were employed in most types of AT regiments. A troop comprised four such AFV. 1,648 M10 GMC were Lend-Leased to the British. The appearance of the Archer in late 1944 freed additional Wolverines for conversion to Achilles.

†*Wolverine* RF is 1.3 for 9/43-4/44, 1.2 for 5-10/44, and 1.3 thereafter. *Achilles* Dates and RF for NWE use are 6/44 (1.4), 7-11/44 (1.3) and 12/44-5/45 (1.2); for use in Italy they are 4-5/45 and 1.5.



41. *Archer:* To help maximize the future availability of SP 17pdrs, the design of a version based on the Valentine tank was begun in mid 1942. Production of the Archer—the first full-tracked, British-built TD of any consequence in the war—began in early 1944, utilizing the late-model Valentine chassis. In July of that year, four were shipped to Normandy and another four to Italy, but not until late that year did Archer-equipped units enter combat. The Archer was unusual in that the gun faced to the vehicle's rear, which nullified its value in an offensive role, but which proved handy when having to quickly pull out of a position. The design also placed the breech of the 17pdr directly behind the driver's head, thus making firing on the move impossible. Archers were used in troops of four in AT regiments, but outside of Italy apparently not in those assigned to armoured divisions. 665 were built.

†The MA can fire only at a target that lies within the Archer's "rear" VCA (i.e., the VCA emanating from its rear Target Facing)—as signified by "MA: RVCA only" on the counter.

†The Archer can use neither Bounding First nor Motion Fire—as signified by "No BndFF" on the counter.

†Dates for use in Italy are 1-5/45.



42. *Daimler & Lynx Scout Cars:* In early 1938 the War Office requested a very small, partially armored vehicle to be used for scouting and liaison. This eventually resulted in the "Car, Scout, Mk I"—more commonly known as the Daimler Scout Car. Nicknamed the "Dingo", it featured a number of advanced design concepts for its time. Production ran to 6,626 vehicles in five Marks, the last of which was open-topped. (The earlier Mks had a sliding or folding roof, but as this was rarely closed—and often was actually removed—the game piece is OT.) Dingos proved quite successful, and the resulting demand for scout cars led to several other companies being asked to produce similar types. Ford of Canada answered this call by producing the Lynx, a copy of the Daimler. To get it into production as quickly as possible, already-existing automotive components were utilized, and because of this its exterior dimensions were significantly greater than those of the Daimler. 3,255 Lynx were built. The Daimler's first combat came in Belgium and France, with 21 in the 4th Battalion of the Royal Northumberland Fusiliers, the recce battalion of the 50th Infantry Division, and 30 more in the various HQ units of the 1st Armoured Division. Thereafter as scout cars became more available they were allotted to many different types of units. From mid 1943 the Daimler SC was most commonly employed in armoured car regiments (see British Vehicle Note 52). The Lynx was used by Canadian units, and by British and Indian troops in the PTO.

†*Daimler SC* sD is not available prior to 1944—as signified by the superscript "4+".

†*Daimler SC* RF for non-PTO use is 1.5 through 4/41 [EXC: NA in Norway, 4-5/40], 1.4 for 5-10/41 [EXC: 1.6 for 5/41 use on Crete], 1.3 for 11/41-4/42, and 1.2 thereafter; PTO Dates and RF are 12/41-5/44 (1.5) and 6/44-45 (1.4). *Lynx SC* RF for non-PTO use is 1.6 for 7-11/43, 1.5 for 12/43-5/44, and 1.4 thereafter; PTO Dates and RF are 12/43-44 (1.6) and 11/44-45 (1.5).



43. *Humber Scout Car:* Another vehicle built to help meet the demand for scout cars was the Humber. It was less mechanically sophisticated than the Daimler and had thinner armor. On the other hand, its roomier crew compartment enabled it to carry a passenger, so it was commonly used as a liaison vehicle—e.g., in HQ units, and in the intercommunication troop of 9-12 SC authorized in mid 1943 to each tank battalion and each armoured, armoured recce, and AC regiment. It was also used by the RAF Regiment, especially in the PTO. 4,300 Humber Scout Cars were built.

†The MA is remotely controlled; it cannot fire if the crew is CE, cannot be fired by a Rider, and *cannot fire at an Aerial target*. This is signified on the counter by "CE/AA FP NA".

†Dates and RF for ETO use are 7-8/43 (1.4), 9/43-4/44 (1.3), and 1.2 thereafter. For PTO use they are 12/43-10/44 (1.4) and 11/44-45 (1.3).





44. *Stuart Recce:* Some British units using Stuart tanks as recon vehicles removed their turrets and fitted pintle-mounted MG. This was done to make them lighter, faster and less conspicuous. These conversions were dubbed Stuart Recces and, aside from their reconnaissance role, were occasionally used as command vehicles and APCs. In the PTO the Stuart remained an effective gun tank, so it is doubtful that such conversions were as common there. Since Stuart Recces were nonstandard field-workshop modifications of whichever Stuart models were available, the game piece is generic, representing a typically converted Stuart III.

†The MA may be fired only at a target that lies within this AFV's VCA—as signified by "MA: VCA only" on the counter. The MA is treated as a single weapon for malfunction/repair purposes, but is treated as two LMG for Scrounging purposes.

†Make two To Kill DR when using the MG column of the AP To Kill Table; only one DR (firer's choice) is used. This is signified on the counter by "2 TK DR (MG)".

†The Scout Car designation is given only in deference to the Stuart Recce's historical use. For all game purposes it is treated as fully-tracked.

†RF for non-PTO use is 1.5 in 1943, 1.4 for 1-4/44, and 1.3 thereafter. PTO Dates and RF are 12/43-45 and 1.5.



45. *Humber III & Otter Light Reconnaissance Cars:* The Humber LRC evolved from one of the many expedient wheeled-AFV designs rushed into production in the summer of 1940. The Mk III (and the equivalent Mk IIIA) consisted of a modified Humber 4x4 8-cwt truck with a lightly armored body and a turreted Bren LMG. The Otter was its equivalent as built by General Motors of Canada. LRC were rather unsophisticated recon vehicles compared to purpose-built SC but, being much simpler designs, were less expensive to build and easier to maintain. They were standard equipment in the infantry division's recce regiment (see British Vehicle Note 51). In addition they were employed in ones and twos for scouting and liaison in engineer units (in which role each carried a recce boat—equivalent in game terms to a one-boat Small Raft), and were also used by the RAF Regiment. 3,600 Humbers and 1,761 Otters were built.

†*Humber III LRC* non-PTO RF is 1.4 prior to 7/43, 1.3 for 7-12/43, and 1.2 thereafter; PTO Dates and RF are 12/43-45 (1.5). *Otter* non-PTO RF is 1.6 for 4-6/43, 1.5 for 7/43-5/44, and 1.4 thereafter; India-Burma Dates and RF are 12/43-45 (1.6).



46. *Morris CS9 Armoured Car:* Pending the development of more modern vehicles, 99 of this stop-gap armored car were built in 1938 by converting Morris 4x2 15-cwt trucks. In May 1940, 38 equipped the 12th Lancers in France (the only AC regiment with the BEF), with three per troop; by the end of that month, all 38 had been lost. The 11th Hussars in Egypt received 30 Morris AC in 1939, and used them as HQ and troop leaders' vehicles (see British Vehicle Note 47).

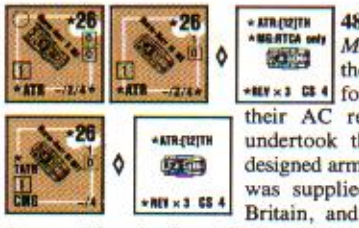
†As used in Belgium and France this AFV had a coaxial LMG, which in North Africa was repositioned as an AAMG. Therefore, the counter has two sets of MG FP factors: "Fr: −/2" and "NAf: −/−/2". The former is used in scenarios set in Belgium/France; the latter, those set in North Africa.

†Dates and RF for use in Belgium and France are 5/40 and 1.4. For North African use they are 6/40-4/41 (1.3), 5/41 (1.4), 6/41 (1.5), and 7/41 (1.6).



47. *Rolls Royce Armoured Car:* The origins of this vehicle go back to the Rolls Royce 1914-Pattern, which was the most widely used AC of WW1. The game piece is representative of the 34 1920- and 1924-Pattern cars used by the 11th Hussars, who modified them by replacing the standard Vickers MG turret with an open-top type carrying an ATR, LMG and smoke discharger. These saw action against the Italians in the initial phase of the desert war. Despite their age they were quite reliable aside from excessive water consumption caused by the engine's crude cooling system. A Rolls Royce troop in North Africa comprised two such AC plus a Morris AC for the troop leader.

†RF is 1.2 prior to 4/41, 1.4 in 4/41, and 1.6 in 5/41.



48. *Marmon-Herrington II ME, III ME & III MFF Armoured Cars:* At the start of WW2, after being informed that Britain could not meet their AC requirements, the South Africans undertook the production of a domestically designed armored car. Its 4x2 Ford truck chassis was supplied by Canada, the armament by Britain, and the armor by South African industry. After the first 135 had been built, production switched to a 4x4 model using a conversion kit supplied by the U.S. Marmon-Herrington Co. The British contracted for a number of the 4x4 type, stipulating that each be equipped with an ATR, LMG, and an AA Vickers MG in lieu of the original armament of one Vickers. This version they named the Marmon-Herrington II, and the South Africans added the suffix ME ("Middle East") to distinguish it from the original-armament type which they designated MFF ("Mobile Field Force"). 338 ME and 549 MFF Mk II were built, with the former going to North Africa and the latter retained for use elsewhere. In May 1941 the Mk III entered production, featuring improvements derived from its predecessors' use in combat; 798 ME and 1,780 MFF Mk III were built, with about one-third of the latter going to India, Malaya and the Netherlands East Indies. While unsophisticated in design, lightly armored and poorly armed, Marmon-Herringtons (or South African Reconnaissance Cars, as the South Africans themselves designated them) were unfailingly reliable and proved a valuable asset to the Allies in 1941-42. Indeed, of the four British AC regiments that operated mainly in North Africa, only one (the 12th Lancers) was not completely equipped with the "Monkey-Harry" at some time during that period. In addition, South Africa's contribution to the desert war included two AC regiments and two divisional recce battalions, all of which employed Marmon-Herringtons throughout their tours of duty there. Besides North Africa, ME types also saw action in Syria, East Africa and Madagascar. The Union of South Africa ultimately produced 5,746 Marmon-Herringtons during WW2 (including the Mks IV-VII which saw no combat). Prior to mid 1943, an AC troop comprised three armored cars.

†*Marmon-Herrington II ME* Dates and RF for use in North Africa are 2-3/41 (1.4), 4/41 (1.3), 5-10/41 (1.2), and 11-12/41 (1.4); for use in East Africa they are 2-11/41 (1.3); for use in Syria they are 6-7/41 (1.3). *Marmon-Herrington III ME* Dates and RF for use in North Africa are 8-10/41 (1.4), 11/41-12/42 (1.2), and 1-5/43 (1.3); for use in Madagascar they are 9/42 (1.2). *Marmon-Herrington III MFF* Dates and RF for PTO use are 12/41-2/42 (1.2), 3-5/42 (1.4), and 6-12/42 (1.5).



49. *Marmon-Herrington IIv & IIIv Armoured Cars:* From their very first clash with German armored cars it was apparent that Marmon-Herringtons needed heavier armament. Though the Mks II and III never had better weapons installed at the factory, authorization was soon granted in North Africa to replace the turret on some vehicles with captured Italian 20mm AA guns. Later, various AT weapons such as the German 37mm, Italian 47mm and British 2pdr were also fitted—but these modifications were not officially authorized. In late 1941 such variants averaged about one per Marmon-Herrington squadron; by late 1942 they averaged about one per troop. The game pieces generically represent two of the more common types; "v" in the name stands for "variant".

†Despite their Italian-built MA, the *IIv* and *IIIv* do not suffer Captured-weapon penalties when British-manned, but *always* use red To Hit numbers—as signified by "RED TH#s" on the counter.

†*Marmon-Herrington IIv* Dates and RF for use in North Africa are 6-10/41 (1.5), 11/41-4/42 (1.4), 5-12/42 (1.3), and 1-5/43 (1.4). For *Marmon-Herrington IIIv* North African use they are 9-10/41 (1.6), 11/41-4/42 (1.5), 5-7/42 (1.4), 8-12/42 (1.3), and 1-5/43 (1.4).



50. *Humber II & III Armoured Cars:* The Humber AC, based on a Quad FAT (field artillery tractor), was an intermediate step between the crude pre-war AC and the more mechanically sophisticated Daimler Armoured Car. The Humber II had a two-man turret, but in the Mk III this was replaced by a larger, three-man version. In North Africa, Humbers were first used by the 11th Hussars and 12th Lancers; later in that theater, several other AC regiments and



the RAF Regiment also received them. With some 5,300 of all Marks produced, Humbers were numerically the most important British-built AC of WW2.

†*Humber II* Dates and RF for North African use are 11/41-2/43 (1.3) and 3-5/43 (1.4). For the *Humber III* in North Africa they are 10/42-5/43 (1.2); for ETO use they are 6-12/43 (1.3), 1944 (1.4), and 1945 (1.5); for PTO use they are 11/42-45 (1.5).



51. *Humber IV Armoured Car:* This was essentially the Humber III AC with a U.S. 37mm gun. Unfortunately, this weapon's bulk allowed only a two-man turret crew. In the ETO, Humbers were generally found in the squadron and regimental HQs of AC regiments, as well as in the various HQ units of other armored formations. In the PTO, Humber IV were used by the 1st Indian Light Cavalry Regiment. From late 1942, Humber AC were most often employed in the recce regiments of infantry divisions, in which a scout troop typically comprised one Humber AC as the troop HQ, a recce section of two car-patrols (each with one Humber AC and one Humber LRC), and two carrier sections containing a total of seven Carriers.

†ETO Dates and RF are 7/43-5/45 (1.2). For use in Burma they are 1945 (1.3).



52. *Daimler Armoured Car:* This vehicle was inspired by the excellent performance of the Daimler SC, which had led to a suggestion that a larger version be built as an AC. Hence both vehicles had many similar design characteristics, though in certain respects the AC was even more sophisticated (e.g., in having a rear-facing steering wheel for the vehicle commander to use in an emergency). The Daimler's firepower was a great improvement over earlier British AC designs as well, for it carried the turret of the Tetrarch light tank whose 2pdr gun put it on a par with the Cruiser and Infantry tanks of the 1940-41 period. Unfortunately, Daimler AC production was seriously delayed several times by Luftwaffe bombing raids, and it was not until mid 1942 that they finally entered combat. In the desert they were used by the King's Dragoon Guards and the Royal Dragoons, usually with one Daimler and two Marmon-Herrington or Humber AC per troop. In Tunisia, several additional AC regiments arrived with or received Daimlers. At the conclusion of the North African campaign the organization of AC regiments was changed; thereafter an AC troop comprised two AC and two SC, both types usually being Daimlers. Daimler AC were used in India-Burma by the 11th (Prince Albert Victor's Own) Cavalry. 2,694 were built, and the type remained in service until about 1960.

†RF for non-PTO use is 1.5 for 7-8/42, 1.4 for 9-10/42 [EXC: use in Madagascar NA], 1.3 for 11/42-5/43, and 1.2 thereafter. India-Burma Dates and RF are 6/44-45 and 1.3.



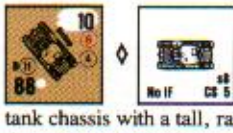
53. *AEC Armoured Cars:* The AEC, an unsolicited design put forth by the Associated Equipment Co., Ltd. (the producer of London's double-decker buses), was a heavy AC—in effect the wheeled equivalent of a tank—derived from the AEC Matador MAT (medium artillery tractor). The Army, having no requirement for such a large and slow AC, initially rejected it—but Churchill personally intervened, and eventually the AEC I went into production. This model carried the turret and main armament of the Valentine II. Late in the North African campaign a small number were issued to certain AC regiments as heavy support vehicles, but apparently were then withdrawn from frontline service after the Axis collapse in Tunisia. The Mk II, which featured increased horsepower and a new three-man turret with 6pdr gun, seems to have been produced in very small numbers—though as many as 24 were supplied to the Yugoslav Partisans in late 1944. The Mk III, the final and most widely used model, was essentially a Mk II with the British 75mm gun. By virtue of its armor and potent, fully traversable MA, it was the most powerful AC of the war. AEC III were used in the same way as M3 GMC (see British Vehicle Note 58), but apparently none were used in Italy. Total AEC production amounted to 629 vehicles, including 122 of the Mk I. AEC were sometimes referred to as "Junies" or "Matadors".

†*AEC I* RF for use in North Africa is 1.6 for 11/42-1/43 and 1.5 thereafter.



54. *Staghound I(a) & II(a) Armoured Cars:* The Staghound was the U.S. T17E1, built by Chevrolet. It was large and quite heavy for an AC but, being intended for use in the desert, its size and weight were not considered liabilities. Around the end of 1942 it was about to be cancelled due to the plethora of AC then under development, but the British requested that production be continued for their use. Ultimately 2,844 Staghound I were built, all of which were supplied to Britain and the Commonwealth. The British modified some by installing the 76mm close-support howitzer, thus creating the Mk II (or Staghound CS as it was also known). Staghounds were not well liked by their users, who considered them too large and unwieldy for the narrow streets and lanes of Europe. Nevertheless they found a standard role in AC regiments, with three in the regimental HQ and three more in each squadron HQ. In Italy, Staghounds were also used by the 2nd New Zealand Divisional Cavalry Regiment and by the RAF Regiment. The British also used the U.S. M8 Armored Car, which they received toward the end of 1944 and employed in Italy.

†*Staghound I* RF is 1.5 in 1943, 1.4 for 1-5/44, and 1.3 thereafter. *Staghound II* RF is 1.5 for 5-10/44 and 1.4 thereafter.



55. *Bishop:* In mid 1941 a request was made for a SP version of the 25pdr, which was being used increasingly as an AT gun in the desert. The resulting vehicle utilized the sturdy Valentine tank chassis with a tall, rather crude superstructure for the gun. The Bishop, though mechanically reliable, was not well thought of by its users who found it to be slow yet conspicuously large, with a cramped interior and very little inherent gun traverse (the latter a significant handicap in the AT role). Fortunately, by the time it became available the 6pdr AT was being issued, so the Bishop was used as SPA. But even in this role it proved unsatisfactory, for its MA was so restricted in elevation that its maximum range was less than half that of the towed 25pdr. Bishops saw action with SP field regiments of the Royal Artillery in North Africa, Sicily and Italy before being declared obsolete in Oct. 1944. Only 100 were built since, soon after production had begun, the British decided to use the Priest in the SPA role.

†Due to the very limited traverse of the MA, it receives a cumulative +1 TH DRM when firing at a moving/Motion target — as signified on the counter by a white dot beside the MA designation.

†Use in Madagascar is NA.



56. *Priest(a):* This was the U.S. M7 HMC. The British requested it in early 1942 but were told that U.S. requirements had first priority. However, when Rommel's forces entered Egypt that summer, 90 were shipped to the 8th Army, the first batch arriving in September. 24 Priests equipped the 11th Royal Horse Artillery in the 1st Armoured Division during the second battle of Alamein—the vehicle's first use in combat. Thereafter, a number of 8th Army field and RHA regiments in Tunisia, Sicily and Italy used Priests, with most eventually being replaced by Sextons. For the Normandy landings, each of the three infantry divisions (3rd and 50th British, and 3rd Canadian) making the initial assault had its three field regiments completely equipped with Priests, as did the 19th Canadian Army Field Regiment in the 1st Canadian Army. In July and August of that year all the former were converted to towed 25pdrs and the latter to Sextons. In the PTO, Priests were used in Burma by the 18th Field Regiment. 828 M7 HMC were Lend-Leased to the British, who named them "Priests" because of their pulpit-like AAMG mount.

†Dates and RF for use in North Africa, Sicily and Italy are 10/42-5/43 (1.5), 6-12/43 (1.4), 1-9/44 (1.3), 10-12/44 (1.4), and 1.5 in 1945. For use in France they are 6-7/44 (1.3) and 8/44 (1.5). For use in Burma they are 11/44-45 and 1.3.



57. *Sexton(a):* The British were impressed by the sound design of the Priest, but were concerned that its non-standard gun would cause complications in training and logistics. What was needed was a well-designed SP 25pdr, but at the time neither the British nor the Americans felt able to undertake production of a new vehicle. The solution to this problem was found in Canada, where the Ram tank (which, like the Priest, used the chassis and mechanical components of the U.S.



M3 Medium) was being produced. Carrying only a 6pdr gun, the Ram by late 1942 was fast becoming obsolete, and early that year the Canadians had begun experimenting with a SP 25pdr variant to equip the artillery battalions of their armoured divisions. The fact that 25pdrs were already being manufactured in Canada was an added plus, for it assured a steady supply of guns. This variant carried the 25pdr in an open-top non-turreted fighting compartment similar to that of the Priest, and the new vehicle, named Sexton by the British, entered production in early 1943. By late 1945 when it ended, 2,150 had been built. Sextons were employed in Royal Horse Artillery and SP field regiments, both non-divisional and those organic to armoured divisions. They eventually replaced most of the Priests being used in the SPA role, and remained in British service until the late 1950s. A troop of full-tracked SPA comprised four such AFV, plus in 1944-45 a Ram (for a Sexton troop) or Sherman (for a Priest troop) OP tank (see H1.46).

†RF for NWE use is 1.4 for 6-7/44 and 1.3 thereafter. Dates and RF for use in Italy are 9/44 (1.5), 10/44 (1.4), and 11/44-5/45 (1.3).



58. *M3 GMC(a) Halftrack:* As M10 GMC became available in U.S. TD battalions, many of the M3 GMC they replaced were turned over to the British. Their new owners designated them the "75mm SP, Autocar" and issued them to the newly reorganized AC regiments, wherein two M3 (plus a SC) formed the heavy troop of an AC squadron (though in some cases they were grouped together to form a regimental battery of eight such vehicles). A few were used thusly in Tunisia, but most went into action later in Sicily and Italy. A relatively small number were employed in NWE, probably with AC units transferred from the Mediterranean Theater. A few sources state that they were also used in a support role in some infantry recce regiments and tank squadrons—but such use was probably quite rare.

†The CE DRM (D5.31) against incoming fire through the front Target Facing is +3 instead of the normal +2—as signified by "CE:+3F" on the counter.

†Dates and RF for use in Tunisia are 4-5/43 and 1.6. For use in Sicily and Italy they are 7-8/43 (1.4) and 9/43-5/45 (1.3). For use in NWE they are 6-12/44 (1.5) and 1.6 in 1945.



59. *Light Tank Mk VI AA:* As Mk VI light tanks were withdrawn from service, some were converted to the AA role by heightening the superstructure and replacing the normal turret with one carrying four MG. Though it was capable of putting out an impressive amount of firepower for a short time, the tank commander in the one-man turret had too many duties; as a result it was not a very effective AA weapon. By mid 1942 the HQ of an armoured regiment was authorized four Mk VI AA while that of a tank battalion was authorized eight. It seems, however, that not many of these AFV were used in action.

†RF for use in North Africa is 1.6 for 5-7/42 and 1.5 for 8/42-5/43.



60. *Crusader AA:* Several types of AA tank were produced for the AA protection of tank units in NWE. They were based on the Centaur and Crusader, with the normal turret replaced by one mounting a 40mm Bofors gun (thus creating the Crusader AA Mk I), twin 20mm guns (the Crusader AA Mk II and Centaur AA Mk I), or twin 20mm guns and a CMG (the Crusader AA Mk III and Centaur AA Mk II). The Crusader AA Mk I was issued to AA regiments, but was withdrawn shortly after the Normandy landings due to the lack of Luftwaffe targets. The Crusader AA Mks II and III (both of which are represented by the game piece), and the Centaur AA tanks as well, were issued to armoured regiments and tank battalions, with a troop of four authorized to the HQ of each such unit. They remained in service somewhat longer as they were found to be useful for infantry support.

†Though this AFV is OT, due to its having RST (D1.321) the crew must be BU to fire its armament—as signified by "CE FP NA" on the counter.

†Make two TK DR when using the 20L column of the AP TK Table; only one DR (firer's choice) is used. This is signified by "2 TK DR" on the counter.

†The optional CMG is always available, and has a 1.2 RF.



61. *M17(a) MGMC Halftrack:* This was a version of the U.S. "quad-50" halftrack. Some were made available to a few British AA regiments in NWE very late in the war (e.g., in the last few months before VE Day, the gun troops of the 94th Light AA Regiment in the Guards Armoured Division comprised two of these halftracks plus four Morris C9/B Bofors AA trucks). With the Luftwaffe practically non-existent, they were often used for infantry support.

†Due to the height of the gun mount, the crew's CE DRM is only +1 when being fired on through the *turret's* side/rear Target Facing—as signified by "CE:+1SRT" on the counter.

†The MA may not fire at a target that lies within the VCA and is also at the same or a lower level than the firer [EXC: during CC]—as indicated on the counter by "VCA ≤ level NA".

‡Make four To Kill DR when using the 12.7 column of the AP To Kill Table; only one DR (firer's choice) is used. This is signified by "4 TK DR" on the counter.



62. *Humber AA & Staghound AA(a) Armoured Cars:* The Humber AA was a Humber Mk I or Mk II AC with its normal turret replaced by the same type used on the Mk VI AA light tank. The Staghound AA was the U.S. T17E2 AC, which comprised a normal Staghound (U.S. T17E1) with its turret replaced by one mounting twin .50-cal MG. 1000 Staghound AA were built at the request of the British. Both types of AA AC were used in AC regiments, with four authorized to the regimental HQ. In addition, from September 1942 through November 1943 the HQ of an armoured brigade was authorized two AA AC, as was the HQ of a tank brigade. By late 1944, most if not all AA AC had been phased out thanks to complete Allied air superiority.

†For the *Staghound AA*, make two To Kill DR when using the 12.7 column of the AP To Kill Table; only one DR (firer's choice) is used. This is signified by "2 TK DR" on the counter.

†*Humber AA* RF for use in North Africa and the ETO is 1.6 for 8/42-5/43, 1.5 for 6/43-8/44, and 1.6 thereafter. *Staghound AA* ETO RF is 1.5 for 6-8/44 and 1.6 thereafter.



63. *M5(a), M5A1(a), M9(a) & M9A1(a) Halftracks:* These were U.S. halftracks built by the International Harvester Co. Considered non-standard, they were consigned to Lend-Lease stocks, and most went to Britain where they were designated "Truck, 15-cwt, Half-Tracked, Personnel". The British used them as command vehicles, prime movers for AT guns (mostly the 17pdr), and as engineer/pioneer vehicles. Another important role was as an APC for the infantry sections in motor battalions—mostly those employed in NWE. When equipped with halftracks, a motor battalion was the functional equivalent of a U.S. armored infantry battalion. In game terms a 1944-45 motor platoon with halftracks contained four such AFV: three carrying a squad apiece, and the fourth carrying the platoon leader plus two HS, a PIAT and a 2-in. mortar. One thusly organized platoon was also found in each fighting squadron of an AC regiment, and in each recce squadron of an infantry division's recce regiment; however, it was termed a support troop in the former and an assault troop in the latter. Having one or more MG mounted on the halftrack seems to have been more the exception than the rule—and even when present such armament varied from vehicle to vehicle, so in this respect the game pieces are strictly generic. The British were Lend-Leased 5,690 M5 and M5A1 halftracks out of the 7,584 built, plus a large portion of the 3,433 M9 and M9A1 produced. In addition they were supplied with 1,600 M14 halftracks (M5 types that mounted twin .50-cal MG with 360° traverse), most of which they converted to APC.

‡*M5* RF is 1.6 for 10/42-5/43, 1.4 for 6-8/43, and 1.3 thereafter [EXC: for 6/44-5/45 NWE use it is 1.2]. *M9* RF is 1.5 for 10/42-8/43, and 1.4 thereafter [EXC: for 6/44-5/45 NWE use it is 1.3].









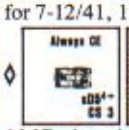

64. *Carriers A, B & C:* The tracked armored carrier was by far the most common "AFV" in British service. Originally designed to transport the Vickers MG, by late 1939 three different types had evolved: the Bren, Cavalry, and Scout Carrier. Their primary function was to increase the mobility and protection of LMG and ATR crews in infantry, cavalry light tank, and divisional cavalry units respectively. A fourth type, the Armoured OP Carrier, was in development for artillery forward observers. Then in 1940 the Universal Carrier (often generically—but erroneously—referred to as the Bren Carrier) appeared, featuring one basic design which with minor modifications could fill any of these roles. This is the version the Carrier A-C pieces represent, though in some cases their initial Dates actually reflect combat use of the earlier models. (The Universal Carrier was first used in North Africa.) Carriers A and B were most commonly found in the carrier platoon of the infantry battalion and in the scout platoon of the motor infantry company. Both platoons had the same general functions: reconnaissance, direct support, flank protection and mobile reserve. The carrier platoon had 10 Carriers in 1939-40, increased to 13 around 1943. The scout platoon comprised 10-11 Carriers. In both, a section officially comprised one Carrier A (or C), one Carrier B and one 2-in. mortar Carrier. Carriers were also used in the scout troops of the infantry division's recce regiment; see British Vehicle Note 51. They were also employed as command, liaison and artillery observer vehicles. In 1943 a towing attachment was added so that in emergencies they could tow 6pdrs a short distance; however, it seems their use as towing vehicles became a fairly common practice. The Carrier C piece represents a Carrier A uparmed with a "privately obtained" MG. About 100,000 Universal Carriers and related types (Bren, Scout, etc.) were built inclusive of all variants, coming from (in descending order of overall production totals) Britain, Canada, the U.S., Australia and New Zealand. 57 Carriers were used by U.S. forces during the defense of the Philippines in 1941-42. They arrived at Manila on 12 Dec. 1941 en route from Vancouver to Hong Kong, and were released by the Canadian government a few days later. They had no armament, but were quickly provided with .30/.50 cal. MG. 40 were allotted to the Provisional Tank Group while the remainder went to the scout car section of the 26th Cavalry Regiment (Horse) (Philippine Scouts).



†The *Carrier A's* 2 FP BMG MA may be repositioned as a normal MA AAMG. This can be done only by placing an AA counter on the Carrier at the end of any friendly fire phase (not MPh) in which the BMG has not fired and the Inherent MMC is not stunned, shocked, broken or in Melee. As long as the AA counter remains on the Carrier, its FP is assumed to be "–/–/2" with a *zero* Multiple ROF. The AAMG may be repositioned as the BMG MA by using these same principles to remove the AA counter.

†The *Carrier C's* MA may not be Removed, as signified by "Rmvl NA" on the counter, and may be Scrounged only as a British LMG. However, in a scenario set in July 1943 or later it is assumed to be carrying a PIAT (as signified by "PIAT^{J3+}"); see C13.6-.63, and U.S. Vehicle Note Z (which also applies to its use).

†*Carrier A* RF is .9 [EXC: 1.4 for 4-5/40 use in Norway and 5/41 use on Crete]. *Carrier B* RF is 1.0 through 8/43 [EXC: 1.5 for 4-5/40 use in Norway, and 1.4 for 5/41 use on Crete], 1.1 for 9-11/43, 1.2 for 12/43-5/44, 1.3 for 6-10/44, and 1.4 thereafter. *Carrier C* RF is 1.5 for 1-6/41, 1.4 for 7-12/41, 1.3 for 1-6/42, 1.2 for 7-10/42, and 1.0 thereafter.



65. *Carriers, MMG A & B:* The crews of some Carriers replaced the Bren LMG with a Vickers water-cooled MG, though this was not an official modification. In addition, a number of Carriers built in Australia had factory-installed Vickers BMG, and were commonly found in Australian units. Both are represented by the Carrier, MMG A. During the war the British also produced a Vickers-MG Carrier, but this version had the weapon mounted on a pedestal on the engine cover, thus allowing an all-round field of fire. This type—the Carrier, MMG B—became the standard vehicle in the two MMG platoons in each motor battalion,with each platoon having four such Carriers.

†The *Carrier, MMG B's* MA has a Normal Range of 14 hexes—as signified by "Nml Rng: 14" on the counter.

†*Carrier, MMG A* RF for non-PTO use is 1.3 through 12/42 [EXC: 1.5 for 5/41 use on Crete], and 1.4 thereafter; PTO RF is 1.3.



66. *Carrier, 2-in. Mortar:* Some Carriers were fitted with a 2-in. mortar mounted on the side of the gunner's compartment. In 1943 this fitting was made standard on all new Carriers so they could be easily field-converted to this role. It seems that in combat the mortar was rarely fired from the vehicle, the crew usually dismounting instead to fire it from the ground where they were less conspicuous. When available, one 2-in. mortar Carrier was included in each Carrier section (see British Vehicle Note 64). In the latter half of 1943 the 6pdr troops in AT regiments were each authorized two 2-in. mortar Carriers whose main function was to illuminate targets at night.

†The mortar may be Removed dm (D6.631). While Removed, its ROF and all other specifications conform to that of the 2-in. mortar counter with the 2-11 range.

†IR becomes available in 1942—as signified by the superscript "2+".

†RF for 5/41 use on Crete is 1.4; otherwise it is 1.0.



67. *Carrier, 3-in. Mortar:* The Carrier was also adapted to transport the 3-in. mortar. The mortar was stowed disassembled on the rear of the vehicle, and its ammunition was carried in racks along the sides of the passenger compartments. Eventually it became the standard mode of transport for 3-in. mortars in motor and infantry battalions and in infantry recce regiments (see British Ordnance Note 2).



†This Carrier starts each scenario *Inherently* carrying a dm 3-in. mortar of the latest model and its ammo. This is signified on the counter by "dm $\overline{76}$* MTR". For Removing and restowing the MTR see D6.82-.83. To indicate that the MTR has been Removed, place a "SA Disabled" counter on the Carrier. The MTR must be dm to be restowed. See also British Vehicle Note H.

†The Carrier's DVP value (F.3) is 2 without the MTR in it.

†RF for non-PTO use is 1.5 initially; beginning in 3/42, decrease it by .1 in each six-month period until 1.1 is reached in 9/43. Dates and RF for PTO use are 11/42-11/43 (1.4), 12/43-10/44 (1.3), and 12/44-45 (1.2).






68. *Priest(a) & Ram Kangaroos:* The idea for these APC originated with the Canadians in Normandy. The initial type used was derived from the Priest, which was chosen simply because those in the 3rd Canadian Infantry Division had just been replaced by Sextons and were near at hand. An ad hoc workshop detachment code-named "Kangaroo" removed the guns and ammo bins from 76 Priests and plated over their gun apertures. The modified vehicles, at first referred to as "Unfrocked Priests", were used successfully just a few days later during Operation Totalize, the initial drive on Falaise, carrying the 4th Infantry Brigade of the 2nd Canadian Infantry Division and the 152nd Infantry Brigade of the 51st (Highland) Division. But since Priests were in limited supply, the Ram (see British Vehicle Note 57), of which there were many in Britain, was chosen as the standard conversion vehicle. A Ram became a Kangaroo by having its turret removed and the interior stowage altered to provide room for the passengers. The 1st Canadian Armoured Carrier Regiment was formed, and first used its Ram Kangaroos in the assault on Boulogne. The British too formed a Kangaroo unit, the 49th APC Regiment, and at the end of 1944 both formations became part of the 79th Armoured Division which used them on numerous occasions to provide assault transport for infantry battalions. Kangaroos were also employed in Italy, where in late 1944 and early 1945 102 Priests and 75 Shermans (which as Kangaroos are equivalent to Rams in game terms) were converted, and were operated by the 4th and 14th/20th Hussars. De-turreted Rams and Shermans were sometimes used in NWE and Italy respectively for towing 17pdr AT in armored units. A section of Kangaroos comprised three such AFV, and could transport one infantry platoon.

†The *Priest Kangaroo's* MA is a U.S. .50-cal HMG—as signified by "MA: 12.7(a)" on the counter.

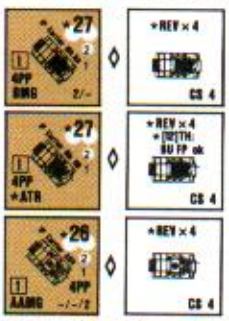
†*Priest Kangaroo* Dates and RF for NWE use are 8-9/44 and 1.5; for use in Italy they are 2-5/45 and 1.4. *Ram Kangaroo* RF for NWE use is 1.5 in 1944, 1.4 for 1-2/45, and 1.3 thereafter; Dates and RF for use in Italy are 2-5/45 and 1.5.



69. *White(a) Scout Car:* This vehicle, the U.S. M3A1 SC, was officially designated "Truck, 15-cwt, 4x4, Armoured Personnel" by the British, but was generally referred to as the White Scout Car after its manufacturer. It was not considered a true SC by the British, who employed it in various other ways; e.g., as a command/liaison vehicle, and as an artillery forward observer vehicle in infantry divisions. Even more importantly it served as an APC for the infantry section in certain motor battalions, primarily those in Italy where halftracks were not as widely available. In addition, in early 1943 a support troop was authorized for each AC squadron; this comprised four White SC (or halftracks; see British Vehicle Note 63) carrying a platoon of infantry trained as sappers.

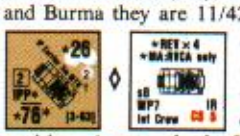
†This vehicle can retain any unpossessed SW aboard it (D6.4), and its Passengers' FP is not subject to halving for Mounted Fire (D6.1) [**ERRATA:** Passenger FP from the U.S. M3A1 SC is also treated thusly].

†Dates and RF for use in Italy are 9/43-3/44 (1.3) and 1.2 thereafter. For use in North Africa and otherwise in the ETO they are 5-9/42 (1.5), 10/42-6/43 (1.4), and 1.3 thereafter.



70. *IP Carriers Mk IIA, Mk IIB & AOV:* The IP Carrier, whose official designation was "Armoured Carrier, Wheeled, Indian Pattern", was produced in India using Canadian Ford automotive components and locally manufactured armor plate. Numerically the most important model was the Mk II, which performed the same roles as the basic Universal Carrier. The models A and B had minor design differences, but either type could actually carry the BMG or BATR. The AOV (Armoured Observation Vehicle) featured a roof-mounted Bren LMG with a turret-like shield and, though designed as an artillery forward observer vehicle, was often used as a light recce car. Some models were used in North Africa and Italy as well as in India-Burma, while others were used only in the latter theater.

†*IP Carrier Mk IIA* Dates and RF for use in North Africa and Italy are 5-9/42 (1.5), 10/42-5/43 (1.4), 10-12/43 (1.4), and 1/44-5/45 (1.3); for use in India and Burma they are 11/42-5/43 (1.3) and 6/43-45 (1.2). *IP Carrier Mk IIB* Dates and RF for use in North Africa and Italy are 5-9/42 (1.5), 10/42-5/43 (1.4), 10/43-44 (1.4), and 1.5 in 1945; for use in India and Burma they are 11/42-45 (1.3).



71. *IP Carrier, 3-in. Mortar:* Some IP Carriers were converted to carry the 3-in. mortar. The weapon was mounted assembled facing the rear of the vehicle and could be fired from this position. Apparently the IP Mortar Carrier saw action only in India and Burma. A total of 4,655 IP Carriers of all types were produced.

†While Inherent in the Carrier, the mortar can fire only at a target that lies within the Carrier's "rear" VCA (i.e., the VCA emanating from its rear Target Facing)—as signified by "MA: RVCA only" on the counter.



72. *Wasp & Badger(a):* The Wasp was a Carrier with a FT mounted in place of the BMG. Two different types were used in action: the Mk II, which carried the flame-fuel and propellant tanks inside the vehicle; and the Canadian-designed Mk IIC, which had only a single flame-fuel tank that was mounted on the rear exterior, thus allowing an extra crewman to be carried. For simplicity the game piece generically represents both types. By 1945 the Mk IIC had replaced the Mk II in NWE. A Wasp platoon (which comprised six such AFV and was sometimes referred to as the "Ronson Cavalry"), was part of the support company in many infantry battalions by 1945. In some cases the motor battalion and/or independent MG company in an armoured division also had a platoon.

The Badger was a Ram Kangaroo converted by the Canadians to carry the Wasp FT. The flame gun replaced the Ram's BMG, and its associated equipment was stowed in the vehicle's interior. Badgers were used in action by the 4th Canadian Armoured Brigade in NWE.

†The *Wasp's* sD, if successfully fired, allows the placing of a Smoke counter in both hexes that are adjacent to the Wasp and in its VCA. Any VCA change pertinent to using the sD is treated as per D13.32.

†*Wasp* RF for NWE use is 1.4 in 1944 and 1.3 in 1945; Dates and RF for use in Italy are 2-5/45 and 1.4.



73. *Buffalo Mk II(a) & Mk IV(a):* These were the U.S. LVT2 and LVT4 respectively. Most used in British service were only partially armored, but many were uparmed with a 20mm gun. In NWE they were under command of the 79th Armoured Division, and were first committed to action with the 5th Assault Regiment Royal Engineers and the 11th RTR during the operations around the Scheldt estuary. By 1945 some 600 were available, and they figured prominently in the battle of the Reichswald and the crossing of the Rhine. Near the war's end Buffaloes were also used in Italy, being referred to as Fantails in that theater. In the PTO, U.S.-type LVT were used by the Australians during their assault landings on Borneo. A Buffalo troop contained six such vehicles.

†These are Partially Armored AFV, with armor only on their front Target Facing.

†The AAMG consists of two 4-FP U.S. MMG. Each has the exact same field of fire as its counterpart on the U.S. LVT4 (see U.S. Vehicle Note 51 and its accompanying diagram). Each AAMG malfunctions and is repaired or disabled independently of the other. Whenever *both* AAMG are malfunctioned, mark the AFV with an "AAMG Malfunction" counter. However, if only *one* AAMG malfunctions, mark the AFV with a "One AAMG Malfunction" counter; thereafter, in each friendly fire phase in which that AAMG is not repaired, the remaining functioning AAMG may fire in its own allowed direction or in the malfunctioned AAMG's direction at no extra penalty.

EX: See the diagram for U.S. Vehicle Note 51. A Buffalo Mk IV's "port-side" AAMG malfunctions. As long as that AAMG is not repaired, the "starboard-side" AAMG can be used in *either* AAMG's side-rear field of fire; i.e., its field of fire is then in any direction except through the VCA.

An Armor/Passenger leader may direct the fire of more than one vehicular-mounted/Passenger-fired MG only if those MG are firing together as a FG.

†All rules in U.S. Vehicle Note 51 headed *"PASSENGERS"*, *"PP CAPACITY"*, *"VEHICLE"*, *"GUN"* and *"SURVIVAL"* also apply to the *Buffalo Mk IV*.

†A Buffalo's sD can be fired in a water Location.

†The Bog DRM for ground specified as "soft, mud, or snow-covered" (D8.21) does not apply to a Buffalo.

†*Buffalo Mk II* RF for NWE use is 1.4; Dates and RF for use in Italy are 4-5/45 and 1.5. *Buffalo Mk IV* RF for NWE use is 1.3; Dates and RF for use in Italy are 4-5/45 and 1.4.



74. *Sherman III DD(a):* The DD (Duplex Drive) amphibious tank was a British invention. Tested first in 1941 on a Tetrarch tank, the system was then installed on more than 600 Valentines. But by mid 1943 Valentines were obsolete, and it was decided that Shermans would be converted to the DD role for combat operations. For the Normandy landings—the initial combat use of Sherman DD—the British employed three armoured regiments: the 4th/7th Dragoon Guards (all of whose Sherman DD were ship-landed on the beach), the 13th/18th Hussars (34 launched, of which 3 sank; at least 5 ship-landed); and the Nottinghamshire Yeomanry (all ship-landed). In addition, the Canadians used two DD-equipped armoured regiments in the D-Day landings: the 6th (29 launched, of which 8 sank; 6 or more ship-landed) and the 10th (all ship-landed). Each regiment actually contained only two squadrons of DD Shermans; the third squadron, whose Shermans were equipped only for deep-wading, but which alone in the regiment had an allotment of Sherman Fireflies, landed later with the second wave of infantry. The plan for the British and Canadian beaches on D-Day was to have the Sherman DD land first, followed several minutes later by AVRE and Sherman Crabs arriving in LCTs (Landing Craft, Tank), with the first infantry assault companies hitting the beach shortly thereafter. However, due to much of the DD wave being delayed by the rough seas, the AVRE and Crabs were the first tanks ashore in many sectors and found themselves having to engage the AT guns that the DD Shermans were to have dealt with. Later in NWE DD Shermans were used by the Staffordshire Yeomanry in the Scheldt operations and the crossing of the Elbe, and by the 44th RTR during the Rhine crossing. In Italy Sherman DD were used by the 7th Hussars. Apparently 573 Sherman DD were built by the British during the war—all of them being Mks III and V. DD tanks were a closely guarded secret; in fact, their existence was not officially made public until after the war. For details on the functioning of the DD system see footnote D13 and U.S. Vehicle Note 48.

†Dates and RF for use in Italy are 4-5/45 and 1.4.





75. *DUKW(a):* This was the U.S. vehicle of the same name. The British, who first used it during the invasion of Sicily, employed it mainly for the ship-to-shore transport of personnel and stores and for river transport. 18 DUKW were allotted to a Sherman DD regiment. DUKW were still in limited British service in the early 1970s.

†RF for ETO use is 1.4 in 1943 and 1.3 thereafter. Dates and RF for PTO use are 12/43-10/44 (1.6) and 11/44-45 (1.5).



76. *Terrapin Mk I:* This vehicle was produced by the British to supplement the DUKW when it was thought an insufficient number of the latter would be made available to them. This shortage did not occur, so Terrapins were used by the 79th Armoured Division to ferry men and materiel in support of amphibious assaults. The Terrapin was an 8x8 vehicle, but on a hard surface only the four center wheels touched the ground. When in the water each of its two engines drove a propeller. It was generally considered inferior to the DUKW for several reasons: the driver, who was situated in the center of the vehicle, had a very limited view; instead of one large cargo hold it had two smaller ones fore and aft of the driver; and it had a rigid (i.e., no) suspension, which severely limited its land speed. On the other hand, while the DUKW's payload was 5,000 lbs., that of the Terrapin was about 9,000 lbs. 500 Terrapins were built, and were first used during the Scheldt operations. Five Terrapins comprised a section.



77. *2pdr Portee:* The 2pdr AT was sometimes damaged by the battering it received when being towed long distances across the rock-strewn desert. The solution to this problem was to mount the gun unlimbered on the bed of a truck specially modified for this purpose, the result being called the 2pdr Portee. This arrangement both saved wear and tear on the gun and increased its mobility. Consequently the Portee became the standard method of transporting the 2pdr in North Africa. In theory the gun was to be unloaded before engaging the enemy, but the rapid movements necessitated by oft-open flanks and highly mobile tank warfare dictated otherwise; more often than not the gunners fought right from the Portees even though their conspicuousness inevitably caused them heavy casualties. On the attack, Portees usually reversed into action so the gunshield could provide some protection for the driver. Aside from North Africa, 2pdr Portees fought in other areas including Greece, Syria and Burma. A troop in an AT regiment comprised four such vehicles.

†This truck starts each scenario Inherently *carrying* (not towing) a 40L AT. While thusly mounted, the 40L serves as the Portee's MA and is treated as a T Gun [EXC: it may not fire at a target that lies within the Portee's VCA—as signified by "NA VCA" on the counter]. The gunshield provides no protection for the Portee, but Direct (only) Fire attacks vs it which emanate from within its TCA, and which do not destroy it, affect its *crew* as if they were manning a non-Emplaced, non-vehicular AT.

†The crew (see British Vehicle Note H) Abandons and re-enters the 2pdr Portee as per D5.4-.43. However, the Gun can be unloaded only after a *crew* counter in the Gun's Location has spent its entire MF allotment as unpinned, non-entrenched Good Order Infantry in a declared attempt (which makes it subject to Hazardous Movement) to do so. If this has been accomplished, the Gun is considered unloaded and takes counter form in Limbered mode, and it, the crew and Portee (which is flipped over to its unarmed side) become TI. The crew and Gun are loaded aboard the Portee using these same principles; however, a Gun may not be (un)loaded onto/from any Portee that has expended MP in the same MPh. A voluntarily Abandoned 2pdr Portee retains an Inherent Driver.

†ETO Dates and RF are 4/41 (Greece; 1.2). For Burma they are 3-5/42 (1.4). For Africa they are 6/40-4/41 (1.2), 5/41-3/42 (1.1), 4-6/42 (1.0), and .9 thereafter.



78. *Morris C9/B:* Known officially as the "Carrier, SP, 4x4, 40mm AA", this vehicle comprised a Bofors AA gun on a chassis derived from the Morris Quad FAT. Similar types based on 3-ton lorries were produced by Ford in Britain, Canada and Australia. Together they were the most numerous SPAA vehicle in British service. A divisional light AA regiment was authorized one battery of 18 SP Bofors guns in three six-vehicle troops.

†May not use Bounding (First) Fire—as signified by "No Bnd(F)F" on the counter.

†Dates and RF for ETO use are 7-8/43 (1.5), 9/43-5/44 (1.4), and 6/44-5/45 (1.3). For PTO use they are 12/43-10/44 (1.5) and 1.4 thereafter.



79. *Loyd Carrier:* This vehicle was designed to transport an infantry section or weapon crew, and to tow a light gun such as the 2pdr AT. For several years it saw limited service, but only as a personnel carrier since the portee doctrine called for AT guns to be carried on trucks. With the demise of the portee in 1943, however, the Loyd was adopted as the standard towing vehicle for the 6pdr AT and 4.2-in. MTR, in which role it served for the remainder of the war. The design allowed for armor plates to be attached, but apparently they were rarely fitted. About 26,000 were built, and were used in all theaters.

†Although this vehicle is a carrier by name, it is not considered a Carrier in game terms.

†Dates and RF for non-PTO use are 41-5/43 (1.5), 6-8/43 (1.3), 9-12/43 (1.1), and 1/44-5/45 (.9). For PTO use they are 12/41-5/43 (1.6), 6-11/43 (1.5), 12/43-10/44 (1.4), and 1.3 thereafter.



80. *Quad FAT:* The Quad FAT (field artillery tractor), whose official designation was "Tractor, 4x4, Field Artillery", first appeared in 1938 as a purpose-built towing vehicle for the 18pdr and 25pdr artillery pieces. A number of different models were produced by several manufacturers, but all are equivalent in game terms. Later versions were used to tow the 17pdr AT as well, and the game piece also represents other vehicles converted to tow the 17pdr. By war's end some 28,000 Quads had been built in Britain and Canada. The basic Quad chassis was utilized in numerous other softskin vehicles and wheeled AFV.

†Although the Quad is not an AFV and has a cs# rather than a CS#, any Effects Final DR vs it receives a −1 DRM for Burning Wreck determination (only).

†Dates and RF for non-PTO use are 4/40 (1.5), 5/40 (1.3 for France and Belgium; 1.5 for Norway), 6-11/40 (1.2), and 12/40-5/45 (1.1) [EXC: 1.5 for 5/41 use on Crete]. For PTO use they are 12/41-45 (1.3).



81. *15-cwt Truck:* In 1939 the British War Department held some 15,000 15-cwt trucks, all 4x2 types. The majority were lost in France in 1940, but by the end of the war over 230,000 were in British service. Most were built in Britain, but a large number were produced in Canada which also shipped chassis to Australia, India, South Africa, etc. for final assembly in those countries. One of the British Army's most common vehicles, the 15-cwt truck could be found in nearly every type of unit. It was used mainly as a supply and load-carrying vehicle, but in motor battalions (and in the assault troops of infantry recce regiments) each section was transported in a 15-cwt until the halftrack and White SC replaced it. In regular infantry battalions each platoon had one 15-cwt for carrying the men's gear. Some of the most common types were the Guy Ant, Bedford MW, Morris CS8, and the Canadian Ford F15 and Chevrolet C15 series. "cwt" stands for "hundredweight" (112 lbs).

†Non-PTO RF is .9 through 6/41 [EXC: 1.4 for 4-5/40 use in Norway and 5/41 use on Crete] and 1.0 thereafter. PTO RF is .9 through 5/43 and 1.2 thereafter.



82. *30-cwt Lorry:* In 1939 well over 10,000 of these "light lorries", mostly 4x2 with some 6x4, were in service with the British Army, but the majority were lost in France in 1940. Production continued in Britain and commenced in Canada, and 4x4 models were introduced, but later in the war output was curtailed in favor of the 3-tonner. The 4x4 30-cwt was sometimes used as a prime mover for the 18pdr, 25pdr and 4.5-in. howitzer—especially in Australian units. Some common 30-cwt lorries were the Bedford OX, Austin K2 and K30, and the Canadian Ford F30 and Chevrolet C30 series.

†Non-PTO RF is 1.0 through 6/41 [EXC: 1.5 for 4-5/40 use in Norway and 5/41 use on Crete], 1.1 for 7/41-8/42, 1.2 for 9/42-5/43, 1.3 for 6-12/43, 1.4 for 1-5/44, and 1.5 thereafter. PTO RF is is 1.1 through 5/42, 1.2 for 6/42-5/43, 1.3 for 6-11/43, and 1.5 thereafter.



83. *3-Ton Lorry:* The 3-tonner was to the British Army what the 2½-tonner was to the U.S.—the backbone of its transport. From slightly less than 10,000 4x2 and 6x4 types in 1939, use of the 3-ton lorry increased to the point that by VE Day about 390,000 were in service with the British alone. 4x4 models entered production at the end of 1940, and were the types usually found in the forward areas; e.g., one 3-tonner was the standard method of transport for an infantry platoon. Specially adapted versions were used to tow the Bofors AA gun and to



carry the 6pdr AT *en portee*, and the game piece also represents the AEC Matador MAT (medium artillery tractor) which towed the 6-in. howitzer, 4.5-in. gun and 5.5-in. gun-howitzer. Large numbers of 4x2 3-ton lorries were supplied to the USSR. Some common 3-ton models were the Austin K3 and K5, Bedford OY and QL, and the Canadian Ford F60L and Chevrolet C60L series.

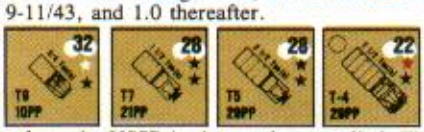
†Non-PTO RF is 1.1 through 6/41 [EXC: 1.5 for 4-5/40 use in Norway and 5/41 use on Crete] and .9 thereafter. PTO RF is .9 through 5/43 and 1.1 thereafter.



84. *Jeep(a):* In British service the Jeep, or "Car, 5-cwt, 4x4", became almost as common as in U.S. service. It began appearing in North Africa as a command and liaison vehicle in the first half of 1942. As its availability increased, so too did its roles. The recce squadrons in some infantry recce regiments had a six-vehicle Jeep troop, apparently added in late 1942. In January 1943 a three-Jeep recce troop was authorized for each AC squadron in North Africa, but was deleted shortly after the capture of Tunisia. By 1944 the company commanders in infantry and motor battalions had a Jeep as personal transport, with the total number of Jeeps in these battalions being 15 and 6 respectively. Jeeps were vital to the airborne divisions, constituting practically all their front line transport and recon vehicles, as well as towing heavy weapons such as the 6pdr, 20mm AA and 75mm pack howitzer. In the jungles of the Southwest Pacific, Jeeps became the most widely used vehicles in Australian units as they were often the only type of vehicle able to operate anywhere near the front line.

†The Jeep has Low Ground Pressure (D1.51). Moreover, when it is bogged, one (only) CX squad (even a Prisoner—but not a Guard) on foot expending ≥ four MF in the vehicle's Location (and declared to be assisting its unbogging) thereby allows the owning player to subtract two (one per crew/HS) from the colored dr of its immediately subsequent unbogging DR. [**ERRATA:** Apply the change incorporated in the preceding sentence to German, Russian and U.S. Vehicle Notes L as well.]

†RF is 1.5 through 9/42, 1.4 for 10/42-5/43, 1.2 for 6-8/43, 1.1 for 9-11/43, and 1.0 thereafter.



85. *U.S. Trucks:* The British Empire/Commonwealth was Lend-Leased 292,256 U.S. trucks, making it second only to the USSR in the number supplied. The breakdown was 127,755 trucks of ≤ 1-ton capacity (including Jeeps), 97,112 of the 1½- to 2-ton class, 26,898 2½-tonners, and 40,491 of > 2½-tons. The 1½-ton and 2½-ton trucks supplemented the British 30-cwt and 3-ton lorries respectively. The 7½-tonners were used to tow heavy artillery just as in U.S. service. Canadian auto manufacturers, most of which were subsidiaries of U.S. companies, produced 815,729 softskin transport vehicles during the war, with the vast majority of them going to the British also.

†*7½-Ton Truck* RF is 1.6 prior to, and 1.5 in, 1945.

BRITISH MULTI-APPLICABLE VEHICLE NOTES

A. Non-MG MA uses *red* To Hit numbers prior to 1944—as signified on applicable counters by "RED TH#s (pre 44)". When present, "(a)" in the piece name stands for "American" for ESB (D2.5), Scrounging/Removal (see F.9), Hammada Immobilization (F3.31) and Sand Bog (F7.31) purposes.

B. The 4-FP CMG is "standard equipment", but can be replaced by the optional 6-FP version as per H1.41. RF for the 6-FP CMG is as follows—*A10 Mk IA:* 1.5 in France, NA elsewhere; *A13 Mk II* and *Matilda II:* 1.1 in France, 1.4 elsewhere; *Matilda I:* 1.3. The BPV of each of these AFV assumes the presence of the 4-FP CMG; add two points if the 6-FP version is used.

C. 37mm canister has 12 FP, but is available only in 1944-45—as may be signified by the superscript "4+". Printed canister Depletion numbers are increased by *three* for use in the PTO; e.g., "C7" becomes "C10" when used in the PTO. For the *Lee* and *Grant* medium tanks, canister is available only to the 37LL MA. Non-depletable HE (i.e., with no Depletion number) becomes available for the 37LL MA in 1944, as signified by "HE4+".

D. The vehicle's high hull made exit and entry difficult for Personnel who had to climb over the sides. Therefore, the cost to (un)load (D6.4-.5) is doubled to ½ of the vehicle's MP allotment and two MF for the Personnel—as signified by "(un)load × 2" on the counter [EXC: normal costs apply to the Buffalo Mk IV(a)]. In addition, all attacks made by the Passengers of this vehicle are halved (or receive a +2 TH DRM) as Mounted Fire (D6.1). This vehicle may retain any unpossessed SW aboard it (D6.4), but its crew may not Remove its MG.

E. The optional BMG *may* fire while the vehicle is HD across its VCA—as signified by "HD FP ok" on the counter. It is always available and has a 1.2 RF.

F. Maximum range of this AFV's 12.7mm MA is 16 hexes for To Hit purposes (A9.61)—as signified by "[16] TH" on the counter. Even though the IFE FP actually comprises more than one MG, it is treated as a single weapon for malfunction/repair purposes. The MA may not be Scrounged or Removed—as signified by "MA Rmvl NA" on the counter.

G. May be equipped with a Gyrostabilizer as per D11.



H. As signified by "Inf Crew" on the counter, this vehicle starts each scenario manned by an Inherent *Infantry* (i.e., 2-2-8) crew [**ERRATA:** This is also true of the German SPW 250/7 and SPW 251/2, and of the U.S. M4, M4A1 and M21 MC halftracks (which have a 2-2-7)]. When such a crew exits its vehicle its ID should be recorded since it differs from a normal Infantry crew by having vehicular-crew capabilities.

I. The optional MA is a U.S. .50-cal HMG (as signified by "MA: 12.7(a)" on the counter) if it has a "2" ROF, or a U.S. .30-cal MMG (as signified by "MA: MMG(a)" on the counter) if it has a "1" ROF, and may be Removed (D6.631) as such (i.e., as a British-color 8-16 HMG or 4-10 MMG respectively; see F.9). It is always available with a 1.3 RF. The vehicle, if armed, has an Inherent crew and thus has a CS- instead of a cs# (D5.6).

J. APDS becomes available for the 57L and 57L in June 1944, and for the 76LL in September 1944. APCR for the 76L becomes available in September 1944. These are signified by the superscript "J4+" or "J4+" where applicable.

K. Optional AAMG is available only after 1940, and has a 1.3 RF.

L. Reverse Movement costs this vehicle three times its normal hex entry cost— as signified by "REV × 3" on the counter.

M. If this AFV becomes Stunned it may not gain CE status again, may not fire its MA, and is Recalled as per D5.341. These are signified by "Stun = Recall & CE/FP NA" on the counter.

N. This vehicle was used in North Africa at some time from 6/40 to 5/43 (within the limits of its own given Dates). If the superscript "T" appears, its use in North Africa was limited to Tunisia, 11/42-5/43 (within the limits of its own given Dates).

O. All 1MT restrictions apply in the normal manner [EXC: the crew must be CE to fire the CMG]; this is signified by "BU FP NA" on the counter. [**ERRATA:** The preceding sentence also applies to the German PSW 221.] Make four To Kill DR when using the MG column of the AP To Kill Table; only one DR (firer's choice) is used; this is signified by "4 TK DR (MG)" on the counter.

P. This vehicle was used in the PTO at some time from 12/41 to 8/45, within the limits of its own given Dates.

Q. The ATR has a maximum To Hit range of 12 hexes (as signified by "[12] TH" on the counter) and may be Scrounged/Removed. If optional, it is always available and has a 1.1 RF. If listed as MA, it has a "1" Multiple ROF. If it is a TATR, it fires through the TCA in the normal manner. If it is a SA BATR, it *may* fire while the vehicle is BU and/or HD across its VCA—as signified on the counter by "BU/HD FP ok" (or "HD FP ok" for the *Carrier, MMG A*, which cannot be BU). The MA BATR of the *IP Carrier Mk IIB* may fire while the vehicle is BU, as signified by "BU FP ok" on the counter.

R. This AFV had a very fast and accurate turret traverse, and also a better-than-normal ROF for a MA of its caliber. Therefore, it is allowed the possibility of Multiple Hits (C3.8) even though its MA is > 40mm. Moreover, in a Gun Duel (C2.2401) its total Firer-based TH DRM are halved (FRD) prior to adding any Acquisition DRM. (The final total of all DRM may not be < zero, and applies for Gun Duel calculations *only*.) These abilities are signified on the counter by the ROF # being printed on a white background.



S. The 94* can fire *only* Smoke—not AP or HE. Smoke fired by the 94* or 76* is not subject to C8.9 Depletion, as signified by "∞ Smoke" on the counter [EXC: the 76* of the *Tetrarch CS*, *Matilda II CS* and the *Churchill I* has s9 and non-depletable HE when used in a scenario set after 10/43; increase their BPV by 10 points for such use]. The 76* and 94* have a maximum range of 50 hexes—as signified by "[50]" on the counter. The 94* is not considered functioning ordnance for OVR purposes (D7.11), nor is the 76* *if* it has depleted its HE. On the *Churchill I*, only the 76* SA may fire Smoke and HE.

In an armoured regiment or tank battalion equipped with British-built tanks, the HQ of each squadron officially contained two CS tanks. Many of the early CS models could fire only smoke. Other types, which could fire HE, usually carried only a small amount of it in accordance with British tank doctrine. The later versions carried more HE and less smoke.

T. The AAMG, if present, may fire only at a target that lies within this AFV's "rear" TCA (i.e., the TCA emanating from the *turret's* rear Target Facing), as signified by "MG: RTCA only" on the counter. For the non-turreted *Marmon-Herrington IIIv*, the AAMG may fire in the same manner but only through the "rear" *VCA*—as signified by "MG: RVCA only" on the counter.

U. See D6.8-.84 for the basic rules pertaining to Carriers. If this Carrier has sD/Towing capability, it is not usable prior to 1944—as signified by the superscript(s) "[4-]". If this Carrier is to start a DYO scenario as a towing vehicle, an *Infantry* (i.e., 2-2-8) crew may be purchased for it in lieu of its Inherent HS; this is accomplished by adding two points in the "Opt BPV" column of the DYO Roster's "Vehicle" section. The MF expenditures given in C10.11 and C10.12 for (un)hooking a Gun apply unchanged if the MMC performing that action is simultaneously (un)loading from/into this Carrier. The use of "A","B" and "C" in the piece names are our own designations, given to help differentiate between similar models.

V. Of the special rules for Carriers, only D6.82-.83 and H1.43 apply to IP Carriers (and their Inherent HS/crew); for all other purposes they are considered non-Carrier wheeled OT AFV. However, this vehicle may retain any unpossessed SW aboard it (D6.4).

W. WP becomes available in June 1944—as signified by the superscript "[4-]".

X. Reverse movement costs this vehicle four times its normal hex entry cost—as signified by "REV × 4" on the counter.

Y. HE with a Depletion number of "7" becomes available in February 1943, as signified by the superscript "[F3-]". Certain vehicles have an HE Depletion number of "8" for 1944-45, as signified by the additional superscript "[4+]".

Z. This AFV has both a sD and a sM. The owning player may make a usage attempt (D13.2) for *either* (but not for both) during a Player Turn, after declaring which one he will attempt to fire. All other Smoke Dispenser rules also apply unchanged. If the superscript "[4]" or "[4+]"appears after the sD Usage number, this sD is not available prior to 1944.

AA. MA and CMG (if so equipped) have AA capability—as signified by "MA:AA" on the counter.

BB. This vehicle may carry as a Passenger one (only) SMC or 1PP SW. This PP capacity may not be used for carrying ammunition (C10.13).

BRITISH ORDNANCE NOTES



1. *OML 2-in. Mortars:* The "Ordnance, Muzzle Loading, 2-in. Mortar" was derived from a Spanish design. The threatening international situation forced it into production in 1938 after only a minimum of testing, but nonetheless it performed well throughout WW2. Its short range was a drawback, but one at least partially offset by its ability to fire smoke, and later, IR. One 2-in. mortar was allotted to the HQ of each infantry (including parachute and airlanding) platoon, each motor platoon, each assault troop in an infantry recce squadron, and each support troop in an AC squadron. In the latter half of 1943, each gun troop in an AT regiment was authorized two 2-in. mortars (those in a 17pdr troop, whether SP or towed, were carried in trucks; see also British Vehicle Note 66). There were 14 variations of the 2-in. mortar, the most noteworthy being the Airborne version which was lighter and had a shorter barrel; it was issued to parachute infantry.



2. *OML 3-in. Mortar:* The Stokes 3-in. trench mortar which entered service in 1917 was the forerunner of the modern infantry mortar. By 1939 the Mk II version was in widespread service, but lacked range compared to its Axis counterparts. Improved ammunition and, later, improvements to the mortar itself partially redressed this problem. In 1940 an infantry battalion contained only two 3-in. mortars, but in 1941 this was increased to a platoon of six. Also in 1941, two were added to the infantry division's recce battalion, and in 1942 this too was increased to a platoon of six. Some motor battalions began the war with two 3-in. mortars per company, but others apparently had none until 1942. An airlanding (glider) battalion in 1944 had a platoon of four 3-in. mortars, plus two more 3-in. in each of the battalion's four companies; at the start of 1945 all were placed at battalion level in three four-mortar platoons. In India-Burma the 3-in. saw even more widespread service: Light Mountain, and Jungle Field, artillery regiments were given a battery of sixteen 3-in. in 1943, and in 1944 AT and AA/AT regiments also received them. In Burma, each Chindit company was authorized two 3-in. mortars.

†The mortar's range is 6-36 initially, but changes to 3-63 in September 1942 as signified by "[3-63][S2+]" on the counter.

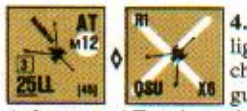
†Dates and RF for non-PTO use are 4/40-3/41 (1.3), 4-10/41 (1.2) [EXC: 1.3 for 5/41 use on Crete], and 11/41-5/45 (1.1). For PTO use they are 12/41-10/42 (1.3), 11/42-11/43 (1.1), 12/43-10/44 (1.0), and 11/44-45 (.9).



3. *OSB 4.2-in. Mortar:* This mortar was developed in 1941 to fire chemical rounds, but HE ammo was designed for it as the fighting in North Africa made it clear that a mortar with a range greater than that of the 3-in. was needed. Like the 3-in., the 4.2-in. initially had an unsatisfactory range for a mortar of its caliber, being able to reach out only to about 3100m; improved ammo soon appeared, which increased its range to some 3900m. In North Africa it was used by Royal Engineer mortar companies. In the ETO it was assigned directly to infantry units: an infantry division's MG/support battalion had a company of sixteen, of which four (one platoon) were in the support company detached from that battalion to each brigade; in an armoured division, the independent MG company attached to the infantry brigade also contained one such platoon. In the PTO the 4.2-in. first appeared in 1944, replacing the 3-in. mortars in AT regiments (except in the West African divisions). More arrived during the advance to Rangoon, and were allotted to divisional artillery regiments. The 4.2-in. was usually towed by a Loyd Carrier. One battery of 4.2-in. accompanied the 29th Brigade to Korea in 1950.

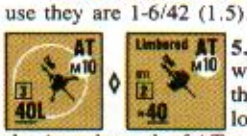
†The 4.2-in. is towed by a vehicle—not carried in it like other 107mm mortars (C10.1 and footnote C26)—as signified by "Towed" on the counter.

†Dates and RF for non-PTO use are 10/42-1/43 (1.6), 2-3/43 (1.5), 4-6/43 (1.4), and 7/43-5/45 (1.3). For PTO use they are 5-9/44 (1.5), 10/44-1/45 (1.3), and 2-8/45 (1.2).

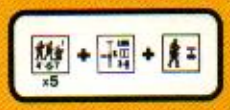


4. *OQF 25mm Hotchkiss:* This was the standard light AT gun of the French Army. The British purchased a quantity in 1938, and used them in nine-gun AT companies allotted to infantry brigades. At least one AT regiment in the BEF (the 14th, of the 4th Infantry Division) was also equipped with them. A number saw action in Norway, but the majority were used (and lost) in Belgium and France. Later, some were used in North Africa by Free French troops who had captured them in Syria. In Europe the BEF found the 25mm too flimsy to be towed, so they began transporting them in the back of trucks. This method of carrying AT guns *en portee* later became widespread in the British Army.

†ETO Dates and RF are 4/40 (1.3) and 5-6/40 (1.2). For North African use they are 1-6/42 (1.5).



5. *OQF 2-Pounder:* With its tripod mounting which permitted rapid all-round traverse, this was the best AT gun in service in 1939. However, the loss of 509 2pdrs in France virtually eliminated the Army's stock of AT guns, and forced the British to give 2pdr production top priority for another year (thus delaying the development of the 6pdr). In the early desert fighting the 2pdr was entirely adequate, but as the Panzers acquired thicker armor it became less and less able to deal with them. Moreover, when the Germans would locate the position of a 2pdr, if possible they stood their Pz IV off beyond its effective range and leisurely shelled it into submission. By 1942 it was dangerously obsolete—but even so, it fought on until the fall of Tunis. Its usual transport in the desert was the 2pdr Portee (see British Vehicle Note 77). In the PTO the



BRITISH ORDNANCE LISTING

#	Name	Type	CSize	ROF (IFE)	B#	Range	M#	TSize	Dates	Special	BPV	RF	Notes
6	OML 2-in. Mortar	MTR	51	2		2-11	—	—	38-45	4PP, s7, 1R[2+†]	—	—	1,A†,N,P
5	OML 2-in. Airborne Mortar	MTR	51	1	11	2-8	—	—	6/44-5/45	3PP, s7, IR	—	—	1
4	OML 3-in. Mortar	MTR	76*	2		6-36†	11	+1	32-45†	NT, QSU, WP7, s8[1+†], IR[2+†‡]	25	1.4-.9†	2†,A†‡,D,N,P
4	OSB 4.2-in. Mortar	MTR	107*	2		24-98	10†	+1	10/42-45†	NT,s8,WP7,Towed†	21	1.6-1.2†	3†,N,P
4	OQF 25mm Hotchkiss	AT	25LL	3		45	12	+1	38-6/42†	NT, QSU	26	1.2-1.5†	4†,B
6	OQF 2-Pounder	AT	40L	3		183	10	+1	38-45†	T, LF [NT, 40†[1], 2 ROF, B11]	30	1.5-.9†	5†,B,C†[1],N,P
4	OQF 6-Pounder 7-cwt	AT	57L†	3		225	10	+1	5/42-45†	NT,QSU,HE7[F3]/8[4+†],D6[J4E]/7[S4]†	34	1.5-.9†	6†,B,N,P
4	OQF 17/25-Pounder	AT	76LL	1	11	263	6	0	3-8/43	NT	36	1.3	7,N
4	OQF 17-Pounder	AT	76LL†	2		263	6	0	7/43-5/45	NT, HE8[J4+†], D5[S4]/6[J] †	41	1.2	8†
4	OQF M1A1 75mm Pack How.	ART	75*	2		218	10	+1	6/44-45†	NT, QSU, H6, WP7	33	1.5-1.6†	9†,D,P
3	Canon de 75 mle 1897	ART	75	1		277	8	0	41-5/43†	NT, QSU, s8	34	1.4-1.5†	10†,B,N
4	OQF 18-Pounder	ART	84*	1	11	213	7	0	04-42†	NT, QSU, s8, WP7	34	1.2-1.6†	11†,N,P
4	OQF 25-Pounder Short	ART	88*		11	233	10	+1	7/43-45	NT, QSU, s8	31	1.4	12,D,P
4	OQF 25-Pounder Gun-How.	ART	88	1		335	8	0	5/40-45†	ST, s8, LF[NT, 0 ROF]	42	1.6-1.0†	13†,N,P
4	OQF 3.7-in. Howitzer	ART	94*	1	11	137	10	0	17-45	NT, QSU, s8, WP7, H6[3+F†]	34	1.6-1.2†	14†,D,N,P
2	OQF 4.5-in. Howitzer	ART	114*	1	11	151	7	0	08-42†	NT, s8, WP7	32	1.4-1.6†	15†,N,P
2	OBL 4.5-in. Gun	ART	114			480	3	−1	42-5/45	NT	29	1.6-1.4†	16†,N
2	OBL 5.5-in. Gun-Howitzer	ART	140			414	2	−1	5/42-45†	NT	34	1.6-1.4†	16†,N,P
2	OBL 6-in. Howitzer	ART	152*			260	4	−1	16-45†	NT	41	1.4-1.5†	17†,N,P
2	OBL 7.2-in. Howitzer Mk I	ART	183*		11	386	−2	−1	43-45	NT, no IF, Acq. NA†	33	1.5-1.6†	18†,N,P
2	OBL 7.2-in. Howitzer Mk VI	ART	183			450	−4	−1	10/44-45	NT, RFNM, no IF	35	1.6-1.5†	19†,P
2	OQF 20mm AA	AA	20L	3 (6)		114	12	+1	9/43-45	T	30	1.6	20
4	OQF 40mm AA	AA	40L	3 (8)		247	8	0	38-45	T, LF[40†[1], 2 ROF]	40	1.6-1.1†	21†,C†[1],N,P
2	OQF 3-in. 20-cwt AA	AA	76*	2		285	3	−1	14-45	T	29	1.4-1.6†	22†,E,P
2	OQF 3.7-in. AA	AA	94*	1		470	1	−1	38-45	T	30	1.6-1.5†	23†,E,N,P

2pdr remained in use throughout the war, though by the end of 1943 in India-Burma it was officially authorized only in the AA/AT regiment of light divisions.

2pdrs were used in AT regiments with four guns per troop, and from early 1942 began appearing in infantry and motor battalions in two or four four-gun platoons respectively. The AT troop of infantry recce regiments that fought in North Africa from late 1942 had six 2pdrs; later these were exchanged for 6pdrs. As a sidenote, HE did exist for the 2pdr, but was rather ineffective and apparently not widely issued. As with many other British guns, the 2pdr was named for the weight of the projectile it fired. "OQF" stands for "Ordnance, Quick Firing", which indicated that the projectile and propellant charge were loaded as a single unit.

†Dates and RF for ETO use are 5-6/40 (Belgium and France; 1.2), 4/41 (Greece; 1.2), and 5/41 (Crete; 1.5). For use in Africa they are 6/40-4/41 (1.3), 5/41-3/42 (1.2), 4-6/42 (1.1), 7-12/42 (1.0), and 1-5/43 (.9). For PTO use they are 12/41-2/42 (1.3), 3-6/42 (1.5), 7-8/42 (1.4), 9-10/42 (1.3), 11/42-11/43 (1.2), and 12/43-45 (1.3).



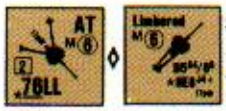
6. *OQF 6-Pounder:* This gun was designed in 1938 but, due to the immediate and pressing need for 2pdrs after the fall of France, it was late 1941 before any could be produced even for testing. It was being issued to motor battalions in North Africa just as the Gazala battles commenced in May 1942, but did not have much impact at that time due to its new owners' lack of training with it. AT regiments began receiving it shortly afterward, and used it in four-gun troops. By the second battle of Alamein, three-fourths (on average) of the AT guns in an infantry division's AT regiment, and all the AT guns in an armoured division, were 6pdrs (though in the latter some were Deacon SP guns). AT regiments in North Africa also received some Lend-Lease U.S. 57mm AT guns in late 1942 and early 1943. Infantry battalions began exchanging their 2pdrs for 6pdrs in early 1943, and at the end of the North African campaign infantry battalions destined for the ETO were authorized a platoon of six 6pdrs in their support company. In North Africa, a motor battalion equipped with 6pdrs had sixteen (four platoons) such guns, but by 1944 in the ETO this had been reduced to three platoons. In 1944, airlanding battalions had two six-gun 6pdr platoons; in early 1945 each troop was reduced to four guns. In the PTO, 6pdrs apparently were used only in AT regiments. Prior to the invasion of Italy in 1943, 6pdrs were carried *en portee*; afterwards they were towed—usually by Loyd Carriers. Small numbers of 6pdrs are still in service in a few countries.

†HE with a Depletion number of "7" becomes available in February 1943, as signified by the superscript "F3"; the Depletion number becomes "8" for 1944 and 1945, as signified by the additional superscript "4+". The printed HE Depletion number is *increased by three* for use in the PTO; e.g., "HE7" becomes "HE10" when used in the PTO. APDS becomes available in June 1944 but only for use in the ETO—as signified by the superscript "J4E".

†Dates and RF for non-PTO use [EXC: NA in Madagascar] are 5-6/42 (1.5), 7/42 (1.4), 8/42 (1.3), 9/42 (1.2), 10-12/42 (1.1), 1-5/43 (1.0), and 6/43-5/45 (.9). For PTO use they are 12/43-45 (1.1).

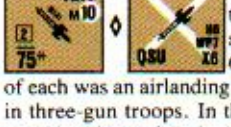


7. *OQF 17/25-Pounder:* In the autumn of 1942, British Army Intelligence began to suspect that the new German Tiger tank might soon appear in North Africa. The 17pdr AT was in production at this time but, due to numerous delays, no carriages had yet been completed. In an attempt to get the gun into action quickly, one was rigged onto a 25pdr carriage and test-fired. The carriage was just able to handle the powerful recoil force; and the combination, deemed an acceptable stopgap, was designated the 17/25pdr. Under the codename "Pheasant" (which soon became the gun's nickname), 100 barrel and breech assemblies were hurriedly flown to North Africa where they were mounted on spare 25pdr carriages. Pheasants were used by AT regiments in four-gun troops, first going into action at the battle of Medenine. As standard 17pdrs became available, the 17/25pdrs were withdrawn.



8. *OQF 17-Pounder:* The requirement for a 3-in. AT to replace the 6pdr was issued in early 1941, and the resulting weapon entered production in mid 1942. It began equipping AT regiments In mid 1943, and in action proved to be one of the very best AT guns of WW2—a fine compromise between weight and hitting power. A troop comprised four guns. Modified versions of the 17pdr were mounted in the Sherman Firefly and Challenger tanks, and in the Achilles and Archer TD. A few countries still employ the 17pdr.

†HE with a Depletion number of "8" becomes available in June 1944, as signified by the superscript "J4+". APDS becomes available in September 1944, as signified by the superscript "S4".



9. *OQF M1A1 75mm Pack Howitzer:* This was the U.S. weapon of the same name. In British service its use was confined mainly to the 1st and 6th Airborne Divisions. The artillery complement of each was an airlanding light regiment which contained 27 pack howitzers in three-gun troops. In the PTO the Australians used a small number of pack howitzers late in the war. The British also supplied some to the Yugoslav Partisans and the Chinese Army.

‡For DYO scenarios the Gun is represented by a ½" parachute when being air-dropped, and is considered re-assembled only if its manning

Infantry have spent one *complete* Game Turn TI in the same Location with it.

†Dates and RF for ETO use are 6/44-5/45 (1.5). For PTO use they are 11/44-45 (1.6).



10. *Canon de 75 mle 1897:* This was the famed "French 75". Some were used by the British on Crete. Its main users, however, were the Free French, who employed it in Africa as artillery and (more often) as an AT weapon. In Free French service a battery of 75s comprised six guns, often carried *en portee*.

†Dates and RF for ETO use are 5/41 and 1.4. For use in Africa [EXC: NA in Madagascar] they are 1-7/41 (1.5), 8/41-6/42 (1.4), and 7-42-5/43 (1.5).



11. *OQF 18-Pounder:* Numerically, 18pdrs formed the backbone of British artillery in WW1. Afterwards they remained in widespread service with British and Commonwealth forces, many (but not all) being modified for vehicular towing in the 1930s. In France and Belgium, 18pdrs (along with 4.5-in. howitzers) were used as divisional artillery in some BEF units; in the hasty retreats and evacuations 216 were left behind. In Africa they were used in the same role until replaced by 25pdrs, and then were put to use as AT guns (mostly, it seems, in Commonwealth units). In the PTO they saw action in many areas including Malaya, Hong Kong, Burma (sometimes in the AT role), and New Guinea. In both artillery and AT use, an 18pdr troop comprised four guns.

†Dates and RF for use in Belgium and France are 5-6/40 (1.4). For Africa [EXC: NA in Madagascar] they are 6/40-4/41 (1.3), 5-10/41 (1.2), 11/41-6/42 (1.3), 7/42 (1.4), 8-9/42 (1.5), and 10-12/42 (1.6). For PTO use they are 12/41 (1.4), 1-2/42 (1.3), 3-7/42 (1.4), and 8-12/42 (1.5).



12. *OQF 25-Pounder Short:* The Australians found the 25pdr difficult to move in the arduous terrain of New Guinea, so they developed their own version, concentrating on making it smaller and lighter wherever possible. The new gun bore little resemblance to the original, and could be disassembled into 14 parts for animal-pack transport—though it was usually towed by a Jeep. The "Baby 25pdr", as it was nicknamed, was not an unqualified success, however; its range, rate of fire and reliability were all less than that of the standard 25pdr. A production run of 212 was completed. It was used only in the PTO, and apparently only by the Australians.



13. *OQF 25-Pounder:* Work on experimental designs to replace both the 18pdr and 4.5-in. howitzer with a single gun had been conducted since the mid '20s, but it was not until the latter half of 1939 that the 25pdr, the culmination of those efforts, was fully approved. Earlier that year, however, the process of replacing the barrel liners of late-model 18pdrs with new liners of 87.6mm caliber had begun. Well over a thousand were so converted, and it was these guns—designated 25pdr Mk I (but more commonly referred to as 18/25pdrs)—which equipped most of the BEF field regiments in France (where 704 of the Mk I were lost). The Mk I was also used in Africa, but apparently not in the PTO. In game terms it is equivalent to the true 25pdr (the Mk II) except for having a maximum range of 275 hexes.

The 25pdr Mk II first saw action in Norway, but was not used again in the ETO until 1941. It first appeared in Africa in early 1941. In North Africa, the need for a gun more potent than the 2pdr resulted in 25pdr regiments being split up more and more often as the campaign progressed, with individual troops and batteries parceled out to various units and mobile columns. While the 25pdr performed well as an AT gun (with its unique circular firing platform an important aspect of this capability), such use seriously impaired the artillery's ability to provide concentrated fire when needed. It was only when 6pdrs became available that the 25pdrs were able to fully revert to their traditional role.

Once in full production, the 25pdr equipped field regiments in every theater, becoming the standard—and sole—artillery piece in non-PTO infantry divisions. Four guns made up a troop. Well over 12,000 of the Mk II were produced in Britain, plus 1,527 in Australia and many more in Canada. The Afrika Korps used a substantial number of captured pieces, and in the ETO 25pdrs were issued to a few U.S. artillery battalions. 25pdrs saw action in Korea, and remained in first-line British service until 1967. More than a dozen countries still have 25pdrs in their artillery arsenals.

†Dates and RF for ETO use are 5/40 (Norway; 1.6), 5-6/40 (Belgium and France; 1.3), 4/41 (Greece; 1.3), 5/41 (Crete; 1.6), and 7/43-5/45 (1.3). For Africa they are 6/40-2/41 (1.5), 3-4/41 (1.4), 5-10/41 (1.3), 11/41-12/42 (1.2) [EXC: NA in Madagascar], and 1-5/43 (1.3). For the PTO they are 12/41 (1.3), 1/42 (1.4), 2-5/42 (1.5), 6-10/42 (1.4), and 11/42-45 (1.3).



14. *OQF 3.7-in. Howitzer:* This was a pack howitzer designed for the Indian Army. It was also referred to as a "Screw Gun" since the barrel and breech were separate sections, joined together by being screwed into the opposite ends of a special junction nut. It was well liked by its users despite having a fairly short range. The great majority were used in India-Burma, where they formed a portion (in a few cases all) of a division's artillery. In addition, small numbers of Independent Light Batteries saw action practically everywhere that British troops fought, including Norway, Crete, North Africa, Madagascar, Sicily, Italy, New Guinea and the Scheldt estuary. The 3.7-in. pack howitzer was used in four-gun batteries in Mountain and Light Mountain artillery regiments, and in eight-gun batteries in Jungle field regiments. Independent Light Batteries could contain either six or eight guns.

†HEAT becomes available in 1943 but only for PTO use—as signified by the superscript "3+P".

†Dates and RF for non-PTO use are 4/40-5/45 (1.6). For PTO use they are 12/41-10/42 (1.5), 11/42-11/43 (1.4), 12/43-4/44 (1.3), and 5/44-45 (1.2).



15. *OQF 4.5-in. Howitzer:* 3,359 4.5-in. howitzers were built prior to and during WW1. During the 1930s the substantial number still in service were modified for vehicular towing even though their short range had already rendered them obsolescent. In 1940 they formed part of the artillery complement in certain BEF divisions, and 96 were left behind in the evacuations. They were also used as divisional artillery in the various African and PTO campaigns until replaced by 25pdrs.

†Dates and RF for ETO use are 5-6/40 (Belgium and France; 1.5), and 5/41 (Crete; 1.6). For use in Africa they are 6/40-4/41 (1.4), 5-12/41 (1.5), and 1-3/42 (1.6). For PTO use they are 12/41-2/42 (1.5) and 3-12/42 (1.6).



16. *OBL 4.5-in. Gun & 5.5-in. Gun-Howitzer:* These guns, termed medium artillery, used the same carriage and were nearly identical in appearance. They were employed in medium regiments, which usually comprised one battery (eight guns) of each type with four guns per troop. (Medium regiments were corps-level units; generally, in the ETO, one was assigned to support each division.) Although the "Four-Five" was fondly referred to as the "long-range sniper", for its size and weight it fired a rather small-caliber projectile with low HE content; consequently, around 1944 it began to be phased out. The "Five-Five", on the other hand, performed well (after some initial problems), and in 1988 remains in service in some half-dozen countries. "OBL" stands for "Ordnance, Breech Loading", which indicated that the projectile and propellant charge were loaded separately.

†*4.5-in. Gun* RF is 1.6 for 1-4/42, 1.5 for 5-9/42 [EXC: NA in Madagascar], 1.4 for 10/42-44, and 1.5 thereafter. *5.5-in. Gun-Howitzer* Dates and RF for non-PTO use are 5-9/42 (1.6) [EXC: NA in Madagascar], 10/42-5/43 (1.5), and 6/43-5/45 (1.4); for use in India-Burma they are 12/43-9/44 (1.6) and 10/44-45 (1.5).



17. *OBL 6-in. Howitzer:* A sturdy and reliable piece which dated back to WW1 (during which some 4,000 were built), the 6-in. howitzer formed the backbone of British medium artillery in the interwar years. In 1940, most of the 221 sent to France with the BEF fell into German hands. In Africa the 6-in. remained in combat service (and was supplemented by a number of U.S. M1918 155mm howitzers) until replaced by the 4.5-in. and 5.5-in. In the PTO it saw action during the Japanese conquest of Malaya, but after that was apparently not used again until relatively late in the war when it equipped some medium regiments in India-Burma.

†Non-PTO Dates and RF are 5/40-9/42 and 1.4 [EXC: NA in Norway, Crete and Madagascar]. PTO Dates and RF are 12/41-2/42 (1.5), and 12/43-45 (India-Burma; 1.5).



18. *OBL 7.2-in. Howitzer Mk I:* In July 1940 it was decided that the existing WW1 8-in. howitzers, including some of similar design recently purchased from the U.S., would be upgraded by exchanging their barrel liners for new ones of 7.2-in. caliber, thus increasing their range. These, in their various forms, became the 7.2-in. howitzer Mks I-IV. Unfortunately, the weapon's recoil was now too much for the carriage: each time the gun fired it leapt backwards. To control this, ramps were supplied for placement behind the wheels. When fired, the gun rolled up (and ideally not over) the ramps, then back down again to be stopped by chocks; the gun then had to be re-aimed for its next shot. Occasionally the gun rolled completely over the ramps, effectively putting it out of action until manhandled back into position. 7.2-in. howitzers formed the standard equipment of heavy regiments (though from the latter half of 1943 some of these regiments, which were Army-level units, were equipped instead with U.S. 155mm "Long Toms"). From late 1944, each corps engaged in Burma was allotted one battery of four 7.2-in. howitzers.

†This Gun may not use Target Acquisition (C6.5-.58)—as signified by "Acq. NA" on the counter.

†Dates and RF for non-PTO use are 43-12/44 (1.5) and 1-5/45 (1.6). For use in Burma they are 10/44-45 (1.6).



19. *OBL 7.2-in. Howitzer Mk VI:* When the U.S. M1A1 155mm "Long Tom" became available to the British, they studied the feasibility of utilizing its carriage for the 7.2-in. howitzer. Since the carriage had been designed to also accommodate the U.S. 8-in. howitzer (which used the same barrel as the 7.2-in.), the conversion was fairly simple. However, at this point the British decided to design a longer 7.2-in. barrel instead of using the old type. This version, the new barrel on the U.S. carriage, was designated the Mk VI. As it became available it replaced the previous Marks in heavy regiments, and served on for many years after the war.

†RF is 1.6 in 1944 and 1.5 in 1945.



20. *OQF 20mm AA:* The British used three types of 20mm AA guns: Oerlikon, Hispano-Suiza and Polsten. The latter was the preferred type but, being the last into production, was never available in sufficient quantity to replace the others. The 20mm was authorized in a wide variety of units including artillery and AT regiments, the brigade HQs and recce squadrons of airborne divisions, and engineer field squadrons; however, due to production delays and problems with the ammunition, not many actually saw action with Army forces. The difficulty with the ammunition was that, unlike the normal design of AA rounds, the HE projectile did not self-destruct after a set number of seconds in flight, and thus could fall to earth amidst friendly troops and cause casualties. For this reason many commanders declined use of the weapon until self-destructing HE could be provided—which did not occur until the spring of 1945. Apparently the only light AA regiments authorized the 20mm were those in NWE, and only through 8/44 (at which time their 20mm troops were abolished). A 20mm troop generally had eight such weapons, in two four-gun sections.



21. *OQF 40mm AA:* The British adopted the Bofors Gun in 1938, and purchased quantities from Sweden (its country of origin), Poland, Hungary and Belgium. By 1941, British factories were turning them out in quantity, and both Canada and Australia produced them as well. Bofors equipped light AA regiments in all theaters throughout the war. A troop initially comprised four guns, but by 1943 it had been enlarged to six. The Bofors Gun is still employed in well over a dozen armies.

†Dates and RF for ETO use are 4/40 (1.5), 5-6/40 (1.3) [EXC: 1.4 in Norway], 4-5/41 (1.3), and 7/43-5/45 (1.2). For Africa they are 6/40-4/41 (1.3), 5-10/41 (1.2), and 11/41-5/43 (1.1) [EXC: 1.3 for use in Madagascar]. For the PTO they are 12/41-2/42 (1.4), 3-6/42 (1.6), 7-8/42 (1.5), 9-10/42 (1.4), and 11/42-45 (1.3).



22. *OQF 3-in. AA:* This was the standard British AA gun during and after WW1. During the interwar years it was modernized in various ways; in 1940, obsolescent but still useful, it formed the mainstay of heavy AA regiments. A wide variety of static and mobile mountings were developed for it; the game piece represents one of the latter types. It was not designed for firing at ground targets; see British Ordnance Note E. Though the 3.7-in. AA gradually replaced it, a few 3-in. remained in service in 1945.

†RF is 1.4 for 5-6/40 [EXC: NA in Norway], 1.5 for 7/40-2/42, and 1.6 thereafter [EXC: NA in Madagascar].



23. *OQF 3.7-in. AA:* This gun performed very well in the AA role. However, it was designed solely for AA fire—e.g., the gun layers sat with their backs to the target (see also British Ordnance Note E)—so was little used for direct fire vs ground targets. By 1940 some 500 were in service, dispersed throughout the Empire. Later Marks incorporated an automatic fuze setter and power rammer for the shells, which doubled the gun's ROF. In the latter half of the war, it was often employed as artillery, using indirect fire. The 3.7-in. is still in the AA arsenals of a few countries.

†RF is 1.6 for 5/40-2/42 [EXC: NA in Norway], and 1.5 thereafter [EXC: NA in Madagascar].

BRITISH MULTI-APPLICABLE ORDNANCE NOTES

A. IR ammo becomes available in 1942, as signified by the superscript "2+" on the counter.

B. In a scenario set between 1941 and 8/43 inclusive, this Gun may be carried *en portee*, which means it may be loaded onto a vehicle (during setup/play) and carried as Passenger PP. As a Passenger, the Gun and its ammo together use all but 5PP of the vehicle's Passenger capacity. The 25LL AT may be porteed only by a *15-cwt truck*, the 40L AT only by a *30-cwt lorry*, and the 57L AT or 75 ART only by a *3-ton lorry*. And the vehicle must be one that, prior to setup, was noted on a side record as being able to portee a Gun of that particular Caliber Size (C2.21) and Barrel Length (C4.1).

The principles of (un)loading a Gun to/from portee status are the same as for the 2pdr Portee in British Vehicle Note 77, except that here the Gun crew (un)loads as a Passenger rather than as an Inherent Crew, and a QSU Gun is not (un)loaded limbered. When a Gun has been thusly loaded, it is marked with an En Portee counter. A vehicle porteeing a Gun is *not* flipped over to its Wreck side if it becomes Immobilized, and the Gun may be unloaded (at which time the vehicle counter is then flipped over). If a vehicle porteeing a Gun is eliminated, the Gun is eliminated too. A vehicle may not simultaneously have one Gun en portee and another hooked up for towing. An AT (with a gunshield) being porteed can provide gunshield benefits to its Passenger crew in the same way the 2pdr Portee MA does to its Inherent crew. In a DYO scenario that meets the restrictions given above, the owning player may purchase the correct portee vehicle in lieu of buying a normal towing vehicle as per 1.441.

The 57L AT (only) may be fired by its Passenger crew while being porteed [EXC: it may not use Bounding (First) Fire]. When loaded on the vehicle, its CA must coincide with either the VCA or "rear" VCA, and may not change relative to that VCA while being porteed. This Note also applies to the German 28LL and 37L AT, either of which may be porteed only by an *Opel truck*.

C. When using Limbered Fire, the Barrel Length modification (C4.1) on the counter's LF side is used for To Hit purposes; the Basic To Kill number, however, is still determined using the Caliber Size and Length printed on the unlimbered side.

D. This Gun (including the *U.S.-color* 75mm pack howitzer) may be Animal-Packed. Rules for this capability will be provided in the ASL Japanese module.

E. This Gun would merit an "L" suffix for its Caliber Size were it not for the fact that very few were equipped with the proper sights for direct fire vs ground targets. Aside from the few so equipped, it was used only for AA fire— and sometimes for long-range indirect fire.

N. This weapon was used in North Africa at some time from 6/40 to 5/43, within the limits of its own given Dates.

P. This weapon was used in the PTO at some time from 12/41 to 8/45, within the limits of its own given Dates.



BRITISH Non-PTO OBA AVAILABILITY CHART						
YEAR	thru 4/41	5-10/41	11/41-42	1943	1944	1945
DR: 2 BPV:	150+ 202	150+ 202	120+ 162	100+ 140 S	200− †243	150+ †207 S
3	100+ 141 S*	100+ 141 S*	100+ 135	120+ 162	100+ †135	200+ †243
4	80+ 114 S*	80+ 114 S*	100+ 135	120+ 162	100+ 140 S	100+ 140 S
5	100+ 141 S*	80+ 108 s	150+ 202	150+ 202	150+ †202	150+ †202
6	150+ 202	150+ 202	80+ 108 s	100+ 135	120+ †162	120+ †162
7	100+ 141 S*	100+ 141 S*	80+ 108 s	80+ 108 s	80+ †109 s*	80+ †109 s*
8	80+ 114 S*	80+ 114 S*	80+ 108 s	70+M 92 S*	70+M 92 S*	70+M 92 S*
9	80+ 108 s	80+ 108 s	70+M 92 S*	80+ 108 s	70+M 92 S*	70+M 92 S*
10	80+ 108 s	70+M 91 S	70+M 92 S*	70+M 92 S*	80+ †109 s*	80+ †109 s*
11	80+ 108 s	80+ 108 s	120+ 162	70+M 92 S*	100+ †135	100+ †135
12	80+ 114 S*	80+ 114 S*	80+ 114 S*	80+ 114 S*	80+ 114 S*	80+ 114 S*
MAX. BPV:	202	202	202	202	243	243

M: Battalion mortar OBA (C1.2).
S: Can fire SMOKE.
s: Can fire Smoke.
*: Can fire IR (E1.93).
†: OP tank possibly available (1.46).

BRITISH PTO OBA AVAILABILITY CHART				
YEAR	41-10/42	11/42-11/43	12/43-9/44	10/44-45
DR: 2 BPV:	70+M 92 S*	80+ 108 s	150+ 202	150+ 202
3	80− 114 S*	80+ 114 S*	80− 114 S*	100+ 140 S
4	80− 114 S*	70+M 92 S*	80− 114 S*	80− 114 S*
5	80− 114 S*	80+ 108 s	70+M 92 S*	70+M 92 S*
6	80− 114 S*	80+ 114 S	70+M 92 S*	70+M 92 S*
7	100+ 141 S*	80+ 108 s	80+ 114 S*	80− 114 S*
8	80− 108 s	70+M 92 S*	80− 109 s*	80− 109 s*
9	80+ 108 s	70+M 92 S*	80+ 109 s*	100+ 140 S
10	80+ 108 s	70+M 92 S*	70+M 92 S*	70+M 92 S*
11	80+ 108 s	70+M 92 S*	70+M 92 S*	100+ 140 S
12	70+M 92 S*	70+M 92 S*	120+ 162	120+ 162
MAX. BPV:	141	114	202	202

M: Battalion mortar OBA (C1.2).
S: Can fire SMOKE.
s: Can fire Smoke.
*: Can fire IR (E1.93).

DYO THEATER TABLE

The term "British" encompasses several nationalities which fought in diverse corners of the world and whose game characteristics differ from one another. To reflect this—and to make the best use of the British Rarity Factor Charts—players designing a DYO scenario with British units may make a dr on the accompanying table after deciding on the scenario's date and theater (ETO, Africa or PTO). This will determine the area of that theater in which the scenario will be set, and will give a footnote listing which type(s) of British Personnel may be used in that scenario. (The term "British" in these footnotes does *not* include other nationalities mentioned in them [i.e., ANZAC, Gurkha etc.]; however, the use of a "non-British" nationality in this context does not preclude its use of British vehicles, Guns, etc.) If the area chosen for the scenario needs an opposing nationality not yet available (e.g., Italians or Vichy French), roll again. Note that certain minor areas of operations have been omitted for simplicity.

BRITISH SW ALLOTMENT CHART[1]								
	LMG	MMG[2]	HMG[2]	LT. MTR	ATR	PIAT	FT[3]	DC[3]
thru 10/41	5	*15*;**18**;15	*12*;**21**;18	5	5	—	—	1
11/41-12/43	5	*14*;**17**;14	*11*;**20**;17	5	5[4]	—[4]	—	1
44-45	5	*13*;**16**;13	*10*;**19**;16	5[5]	—	5	3[6]	1
# In Game	*12*	*6*	*6*	*6/5*[7]	*6*	*9*	*5*	*6*

[1]: SW allotted according to Equivalent number of squads.

[2]: Given in the format "*Scenario Defender*; **Scenario Attacker**; neither Scenario Defender nor Scenario Attacker". Use the # for the category that applies to the British side. In addition, lower the # by two if the British player has made the 10% expenditure for a motorized unit OB (1.4) *and* the scenario is set in the 5/42-45 period vs Germans/Italians.

[3]: Allotted according to Equivalent number of Assault Engineers, see 1.22.

[4]: If the scenario is set after 6/43, make a dr for each ATR received. If the dr is ≤ the following number corresponding to the scenario's date (7-8/43: *3*; 9-10/43: *4*; 11-12/43: *5*), that ATR is exchanged for a PIAT.

[5]: If the scenario is set after 5/44 and is not vs Japanese, the Airborne mortar (see footnote 7 below) is allotted according to the Equivalent number of 6-4-8s (only) in the British OB, and the standard mortar is allotted in the normal fashion to any remaining squad type(s). Should this cause the British player to receive one less mortar than he otherwise would be entitled to, he may freely add one of either type to his OB.

[6]: Vs Japanese, reduce this # by one.

[7]: Standard ("[2-11]") version/Airborne ("[2-8]") version.

DYO Theater Table

ETO		Africa		PTO	
Dates	***dr:* Area**	**Dates**	***dr:* Area**	**Dates**	***dr:* Area**
4/40	*1-6:* Norway[1]	6-12/40	*1-6:* N. Africa[6]	12/41-2/42	*1-6:* anywhere[7]
5/40	*1-3:* France[1]; *4-5:* Belgium[1]; *6:* Norway[1]	1-3/41	*1-4:* N. Africa[2]; *5-6:* E. Africa[6]	3-5/42	*1-5:* Burma[8]; *6:* elsewhere[9]
6/40	*1-5:* France[1]; *6:* Norway[1]	4-5/41	*1-4:* N. Africa[3]; *5-6:* E. Africa[6]	6/42	*1-3:* India-Burma[8]; *4-6:* elsewhere[9]
4/41	*1-6:* Greece[2]	6-7/41	*1-4:* N. Africa[3]; *5:* E. Africa[1]; *6:* Syria[3]	7-10/42	*1:* India-Burma[8]; *2-6:* elsewhere[9]
5/41	*1-6:* Crete[2]	8-11/41	*1-5:* N. Africa[3]; *6:* E. Africa[1]	11/42-5/43	*1-5:* India-Burma[8]; *6:* elsewhere[9]
7-8/43	*1-6:* Sicily[1]	12/41	*1-6:* N. Africa[3]	6-11/43	*1-3:* India-Burma[8]; *4-6:* elsewhere[9]
9/43	*1-6:* Italy[1]	1-4/42	*1-6:* N. Africa[1]	12/43-8/44	*1-5:* India-Burma[8]; *6:* elsewhere[9]
10-12/43	*1-6:* Italy[3]	5/42	*1-5:* N. Africa[6]; *6:* Madagascar[1]	9-10/44	*1-3:* India-Burma[6]; *4-6:* elsewhere[9]
1-5/44	*1-6:* Italy[4]	6-8/42	*1-6:* N. Africa[3]	11/44-8/45	*1-4:* India/Burma[6]; *5-6:* elsewhere[9]
6-7/44	*1-4:* NWE[1]; *5-6:* Italy[4]	9/42	*1-5:* N. Africa[3]; *6:* Madagascar[1]		
8/44-5/45	*1-4:* NWE[5]; *5-6:* Italy[3]	10/42-5/43	*1-6:* N. Africa[3]		

[1]British
[2]British/ANZAC
[3]British/ANZAC/Gurkha
[4]British/Free-French/ANZAC/Gurkha
[5]British/Free-French
[6]British/Gurkha
[7]British/ANZAC/Gurkha/Indian
[8]British/Gurkha/Indian
[9]ANZAC

BRITISH VEHICLE RARITY FACTOR CHART

.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6

NAME	1940									1941										1942										1943										1944										1945								
	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A
Mk VIB [ETO]	a																																																							
[N.Af.]																																																									
[Syria; PTO]																																																									
Mk VIC [France]																																																									
Tetrarch [Madagascar; ETO]																																																									
Tetrach CS [Madagascar; ETO]																																																									
Stuart I(a) [N.Af.]																																																									
[Burma; Papua]																																																									
Stuart III(a) [EXC: PTO]																																																									
[India-Burma]																																																									
Stuart V(a) [ETO]																																																									
Locust(a) [ETO]																																																									
A9 [ETO]	a																																																								
[N.Af.]																																																									
A9 CS [ETO]	a																																																								
[N.Af.]																																																									
A10 Mk IA [ETO]	a																																																								
[N.Af.]																																																									
A10 Mk IA CS [N.Af.]																																																									
A13 Mk I [France]																																																									
A13 Mk II [ETO]	a																																																								
[N.Af.]																																																									
A13 Mk II CS [ETO]																																																									
[N.Af.]																																																									
Crusader I [N.Af.]																																																									
Crusader I CS [N.Af.]																																																									
Crusader II [N.Af.]																																																									
Crusader II CS [N.Af.]																																																									
Crusader III [N.Af.]																																																									
Grant(a) [N.Af.]																																																									
[India-Burma]																																																									
Lee(a) [N.Af.]																																																									
[India-Burma]																																																									
Sherman II(a) [EXC: PTO]																																																									
Sherman III(a) [EXC: PTO]																																																									
Sherman V(a) [ETO]																																																									
[Burma]																																																									
Sherman IIA(a) [ETO]																																																									
[*Italy]																																																									
Sherman IIC(a) [ETO*]																																																									
[*Italy]																																																									
Sherman VC(a) [ETO*]																																																									
[*Italy]																																																									
Sherman IB(a) [Italy]																																																									
Centaur IV [NWE]																																																									
Cromwell IV [NWE]																																																									
Cromwell VI [NWE]																																																									
Cromwell VII [NWE]																																																									
Cromwell VIII [NWE]																																																									
Challenger [NWE]																																																									
Comet [NWE]																																																									
NAME	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A
	1940									1941										1942										1943										1944										1945								

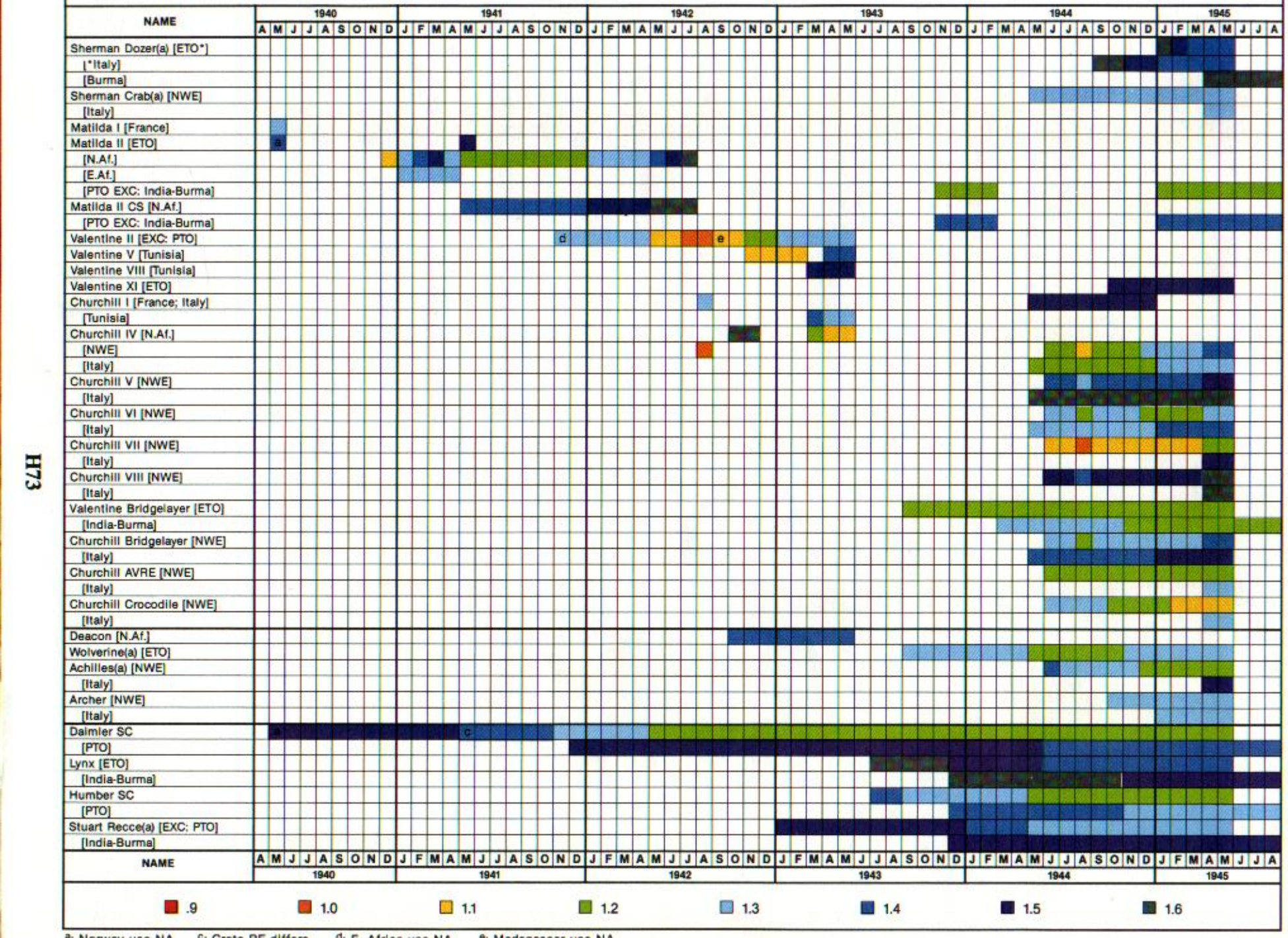
.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6

[a]: Norway use

H72

BRITISH VEHICLE RARITY FACTOR CHART

.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6



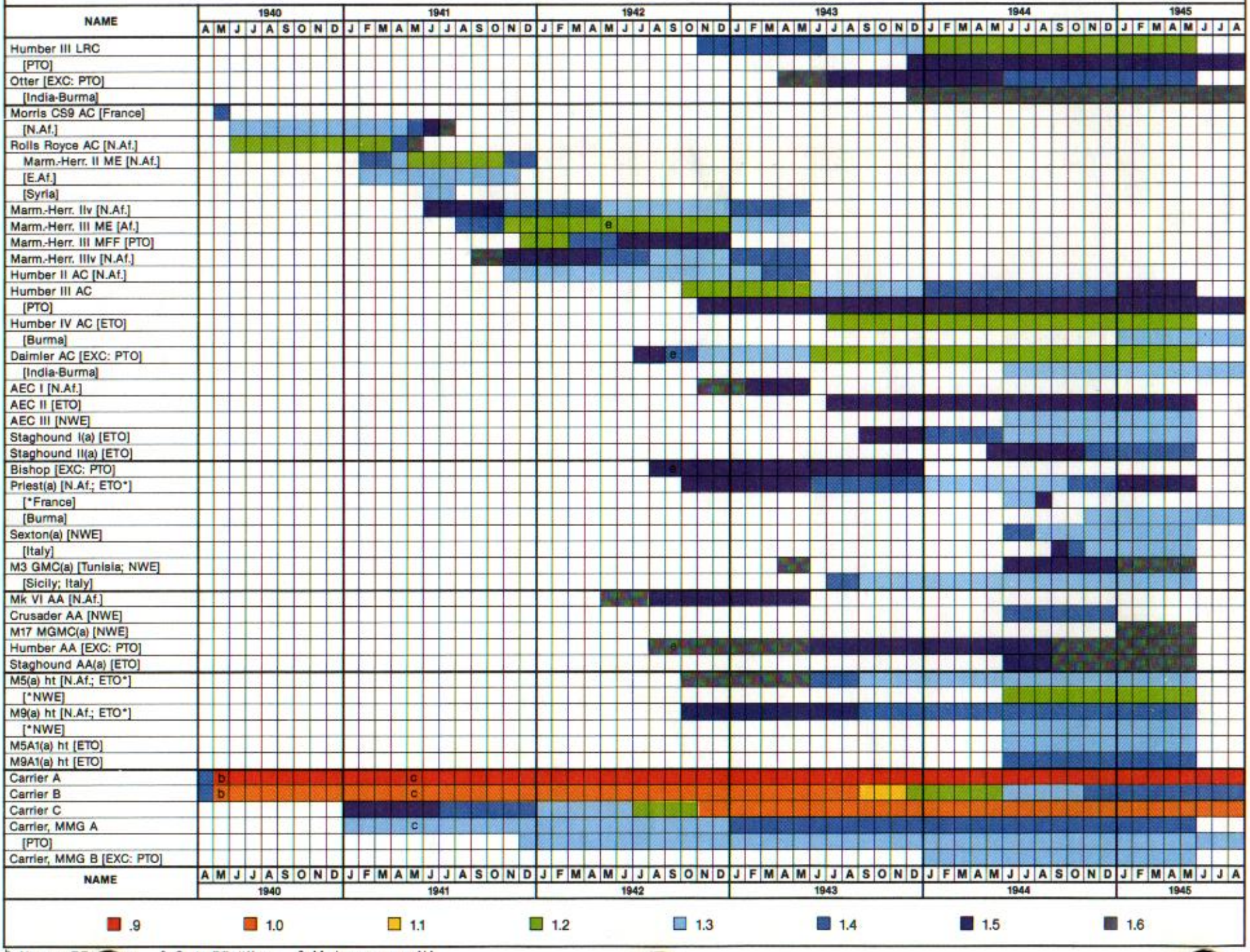
.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6

[a]: Norway use NA [c]: Crete RF differs [d]: E. Africa use NA [e]: Madagascar use NA

H73

BRITISH VEHICLE RARITY FACTOR CHART

.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6



[b]: Norway RF [illegible]s [c]: Crete RF differs [e]: Madagascar use NA

H74

BRITISH VEHICLE RARITY FACTOR CHART

.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6

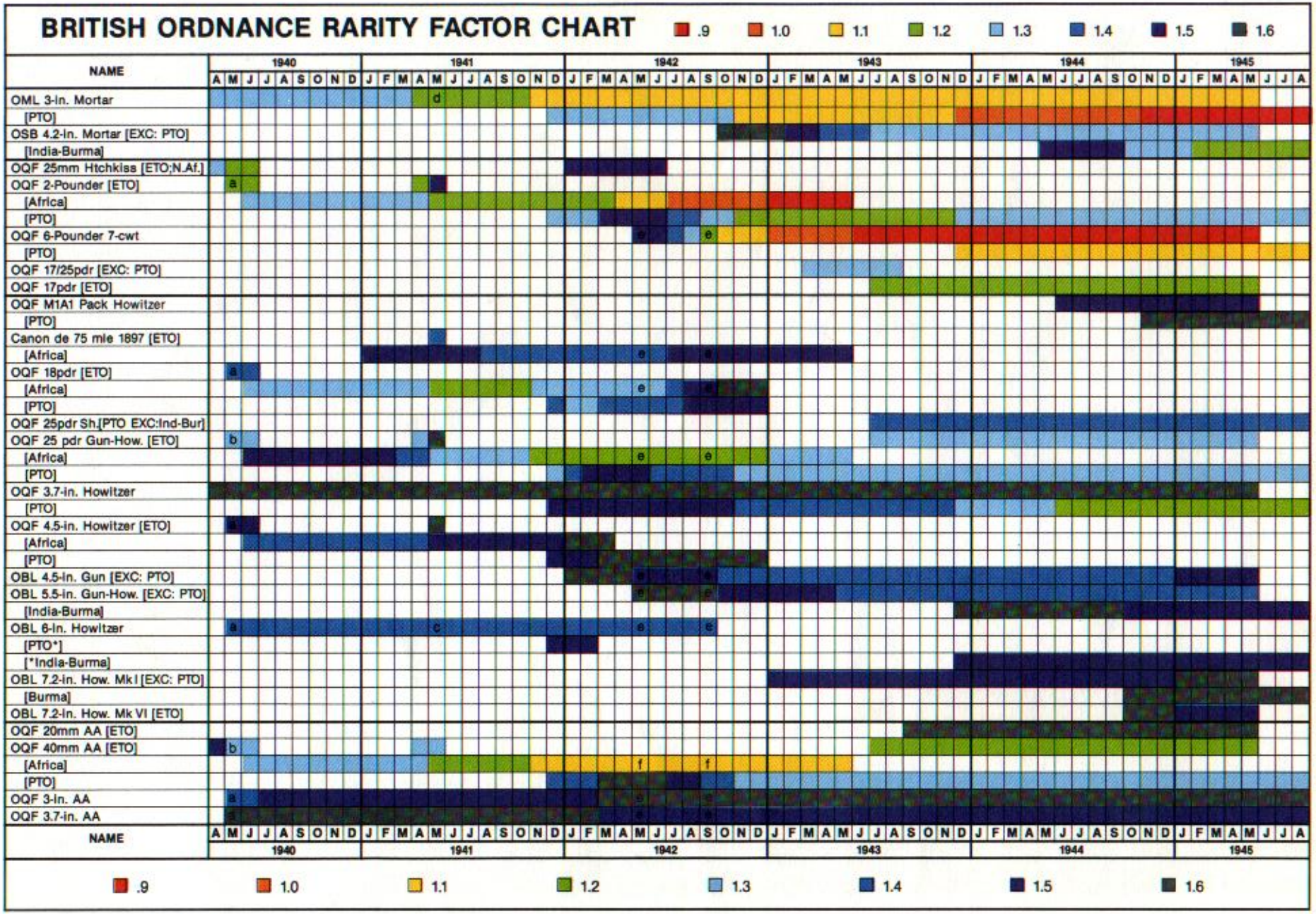
NAME	1940										1941												1942												1943												1944												1945							
	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A
Carrier, 2-in. MTR														c																																																		
Carrier, 3-in. MTR																																																																	
[PTO]																																																																	
Priest Kangaroo(a) [NWE]																																																																	
[Italy]																																																																	
Ram Kangaroo(a) [NWE]																																																																	
[Italy]																																																																	
White(a) SC [N.Af.; ETO*]																																																																	
[*Italy]																																																																	
IP Carrier Mk IIA [N.Af.; Italy]																																																																	
[India-Burma]																																																																	
IP Carrier Mk IIB [N.Af.; Italy]																																																																	
[India-Burma]																																																																	
IP Carrier AOV [India-Burma]																																																																
IP Carrier, 3-in. MTR [Ind.-Bur.]																																																																
Wasp [NWE]																																																																	
[Italy]																																																																	
Badger(a) [NWE]																																																																	
Buffalo Mk II(a) [NWE]																																																																	
[Italy]																																																																	
Buffalo Mk IV(a) [NWE]																																																																	
[Italy]																																																																	
Sherman III DD(a) [NWE]																																																																
[Italy]																																																																	
DUKW(a)																																																																	
[PTO]																																																																	
Terrapin [NWE]																																																																	
2pdr Portee [ETO]																																																																	
[Africa]																																																																	
[Burma]																																																																	
Morris C9/B																																																																	
[PTO]																																																																	
Loyd Carrier																																																																	
[PTO]																																																																	
Quad FAT		b												c																																																		
[PTO]																																																																	
15-cwt Truck		b												c																																																	
[PTO]																																																																	
30-cwt Lorry		b												c																																																	
[PTO]																																																																	
3-Ton Lorry		b												c																																																	
[PTO]																																																																	
Jeep(a)																																																																	
¾-Ton Truck(a) [EXC: PTO]																																																																	
1½-Ton Truck(a) [EXC: PTO]																																																																	
2½-Ton Truck(a) [EXC: PTO]																																																																	
7½-Ton Truck(a) [EXC: PTO]																																																																	
NAME	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A
	1940									1941											1942											1943											1944											1945									

.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6

[b]: Norway RF differs [c]: Crete RF differs

BRITISH ORDNANCE RARITY FACTOR CHART

.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6



a: Norway use NA b: Norway RF differs c: Crete use NA d: Crete RF differs e:Madagascar use NA f:Madagascar RF differs

ITALIAN VEHICLE NOTES

In the late 1930s the Italian Army officially committed itself to a program of mechanization, believing that if so equipped it could win swift and decisive victories, thereby avoiding the stalemates and appalling casualties of the Great War. Unfortunately for those ultimately involved in the impending conflict, the implementation of this program was severely impeded by a number of factors. Among these were a basic lack of raw materials, a relatively small industrial base with little experience in AFV design, a general lack of funds due to the financial stringencies of the 1930s, and the conservatism of certain highranking officers and officials. In the autumn of 1939 the army possessed about 1,500 hundred "tanks", but the overwhelming majority of them were marginally useful L3 tankettes. When Mussolini declared war in June 1940, his army was far from ready. Its total number of "tanks" had increased only to some 1,660, while the army's rapid expansion had created widespread equipment shortages in areas from those as crucial as motor transport to items as normally taken-for-granted as helmets. Moreover, the approximately 11,700 infantry, artillery and AA guns of ≥ 65mm in service included less than 250 modern (i.e., '30s-era) pieces—the *newest* of the remainder being World War One veterans.

The small Italian armaments industry could not, in view of everything working against it, provide prodigious numbers of AFV. From June 1940 to August 1943 it produced only about 3,300 tanks, SP guns and armored cars. The highest monthly total was but 170 vehicles, of which 65 were medium tanks. There was some discussion with the Germans of building the PzKpfw III, IV and V in Italy— but this withered on the vine for a number of reasons, including the opposition of several high Italian officials and industrialists.

Italian AFV were characterized by their light weight, generally low horsepower-to-weight ratio and thin armor (the latter a policy resulting at least in part from the constant shortage of funds and raw materials). The armor plate was of poor quality, tending to crack and split when hit; and was attached by rivets, which further diminished its overall integrity while increasing the danger to the crew inside. The design of new and radically better tanks was not accorded a high priority, due to both military conservatism and the loss in production that extensive retooling would cause. Indeed, Mussolini (who, unlike Hitler, neither fully understood the correct priorities in tank design nor took much interest in such matters) had to *order* the development of a tank with a 75mm gun (the P26/40), as the army saw no need for one. And yet, despite the absence in the field of more-combat-effective tanks and SP guns until nearly the end, Italian AFV crews continued to fight bravely in their obsolete vehicles even when hopelessly outmatched.

At the start of the war, the nomenclature for Italian tracked AFV followed the format "letter #/#". The letter classed the vehicle as either light ("L"; ≤ 5 tons), medium ("M"; > 8 but ≤ 15 tons) or heavy ("P"; > 15 tons). The first number indicated the design weight in tons, and the second the year of acceptance.

[Note: All Allied Italian combat formations were re-equipped by the British in early 1945. Therefore, for DYO scenarios set in that year, the Allied-Italian player may purchase British SC/LRC/APC/PC/trucks (only; as per their "Type" in the Listing) as if his OB were British. He treats such vehicles as non-Captured.]



1. *L5/21 & L5/30:* Also known respectively as the Fiat 3000 A Model 1921 and Fiat 3000 B Model 1930, these were Italy's first series-produced tanks. They were based on the French Renault FT-17 but incorporated numerous improvements. (Indeed, the 3000 A was the fastest tank in the world in 1921.) The L5/21 carried two coaxially mounted 8mm MG, as did some of the L5/30; however, most L5/30 carried a medium-velocity 37mm gun and were intended as platoon and company command tanks. 100 L5/21 and 48 L5/30 were built. The Italians referred to them officially as assault tanks *(carri d'assalto)*, and until mid 1939 considered them first-line AFV. The L5/21 was first used in 1926 against the Senussi in Libya. L5 saw action in 1936 during the conquest of Ethiopia, and in June 1940 a few apparently participated in attacks along the French-Italian border in the Moncenisio region. Two L5 companies, each of nine tanks, were in Sicily when the Allies landed there; one, in XII Corps, was deployed dug-in as pillboxes, while the other, in XVI Corps, was destroyed in the counterattacks on Gela. An L5 platoon comprised four such tanks.

†Availability for WW2 scenarios is limited to 6/40 (France) and 7/43 (Sicily).



2. *L3/35:* Derived from the British Carden-Loyd Mk VI tankette, this AFV first appeared in 1933. The original model, designated the CV 33 (*Carro Veloce*; fast tank), carried a single 6.5mm MG, but later versions were equipped with two tandem-mounted 8mm MG (and the older models were thusly retrofitted). In 1935 the CV 35 went into production, featuring a number of minor modifications (but both types are equivalent in game terms). In 1938 their designations were changed to L3/33 and L3/35. When Italy entered the war in June 1940, L3 were by far the most common Italian AFV, equipping all but two of the tank battalions in the three Italian armored divisions, the tank battalion allotted to each motorized division, the light tank squadron group (equivalent to a battalion) in each Celere ("rapid"; i.e., cavalry) division, and numerous independent tank battalions. L3 acquired several nicknames, among which were "Scatoletta" (little can) and "Cassa da Morto" (death box). Between 2,000 and 2,500 (including all variants) were built. A platoon comprised four vehicles.

L3 were used at one time or another almost everywhere Italian units fought: 10/35-4/36 in the conquest of Ethiopia; 2/37-3/39 in Spain (149 were sent); in the Balkans from 1939; 6/40 in France; in North Africa (where in June 1940 about 320 were present, constituting all the armor there at that time); in Italian East Africa (39 were present in June 1940); 9/41-1/42 in Russia (with the 3rd "San Giorgio" Gruppo Squadroni Carri L of the 3rd Celere Division); 7-8/43 in Sicily; and in Italy where after the 9/43 armistice they were used by Italian Fascists and the Germans. L3 imported during the 1930s were used in combat by the Greeks, Hungarians and Chinese. In the Balkans, captured/seized L3 were used by the Germans, Croatians and Yugoslavians.

†Dates and RF for use in North Africa are 6-12/40 (.9), 1/41 (1.1), 2/41 (1.2), 3/41 (1.4), 4-11/41 (1.2), 12/41 (1.4), 1/42 (1.5), and 2/42 (1.6). For East Africa they are 7/40-1/41 (1.3), 2-3/41 (1.4), and 4-6/41 (1.5). For Russia they are 9-10/41 (1.2), 11/41 (1.3), 12/41 (1.4), and 1/42 (1.5). For Sicily they are 7-8/43 (1.4). For Italy they are 9/43 (1.2), and 44-5/45 (1.3; Fascist use only). For France they are 6/40 (1.1). For the Balkans they are 10/40-4/41 (.9), 5/41-9/43 (1.1), and 44-5/45 (1.3; Fascist use only).



3. *L3 aa:* Some L3 were equipped with an AA mount on the superstructure roof in front of the commander-gunner's hatch. One of the AFV's MG could be moved to this mount, giving the vehicle a limited AA capability. Apparently not many were thusly equipped.

†Either MG may be used as the MA. However, the BMG may not be used while the crew is CE, and the AAMG may fire only at a target that lies within the L3 aa's VCA. These are signified respectively on the counter by the MA being given as "MG", by "BMG: CE FP NA", and by "AAMG: VCA only".

†If this AFV is marked with one or more Malfunction/Disabled counters, the owning player may in effect switch the positions of its two MG. He does this by marking the AFV with a TI counter at the start of its MPh provided it has neither fired nor expended MP in the current Player Turn, is in neither Motion nor Melee, and its Inherent crew is/becomes CE. If all these conditions are still met during the APh, he may then exchange the Malfunction/Disabled counter of one MG for that of the other.

EX: Assume an L3 aa has a malfunctioned AAMG. If the above-mentioned rules are followed, and the conditions are still being met in the APh, its owner may at that time remove the AAMG Malfunction counter and replace it with a BMG Malfunction counter.

†RF is always .4 higher (1.6 maximum) than the corresponding (for date and area) RF of the L3/35.



4. *L3 cc:* During the early months of the war a small number of L3 in Libya were modified by replacing their MG with a Solothurn 20mm ATR. This combination enhanced not only the AFV's A-T capability, but the mobility of the ATR and its crew's survivability as well. Apparently all the L3 cc were lost during the course of Operation Compass, the British counteroffensive of 12/40-2/41.

†RF is 1.5 in 1940 and 1.6 in 1941.



5. *L3 Lf:* Development of a flamethrower *(Lanciafiamme)* variant of the L3 began in 1935. The flame nozzle replaced one of the AFV's MG, and the FT fuel was carried in a lightly armored trailer. The design of the trailer was less than satisfactory however, and before long new versions of the L3 Lf appeared with the FT fuel carried

ITALIAN VEHICLE LISTING

#	Name & Type	⑤	WGT	BPV	RF	Dates	Size	AF	TA	OT	CS	MP	GP	GT	MA	ROF	B#	IF	BMG	CMG	AAMG	SA	Am	s#	PP/T#	Notes
1	4 L5/21 *Tr*	●	5.5	19	1.5	23-7/43†	+1	1			2	8	L	1MT	CMG†[1]	1	11			4						1†,A†[1]
	2 L5/30 *Tr*	●	6	22	1.6	30-7/43†	+1	1			2	8	L	1MT	T37		11									1†
2	6 L3/35 *Tr*	●	3.5	20	.9-1.6†	34-5/45†	+2	1/0			2	13	L		BMG†[1]	1	11		4							2†,A†[1],B†[1],E,N,R
	4 L3 aa *Tr*	●	3.5	18	1.3-1.6†	34-5/45	+2	1/0			2	13	L		MG†	1	**11**†[1]		2†[2]		2†					3†,E†[3],F†[1],N,R
	2 L3 cc *Tr*	●	3.5	20	1.5-1.6†	6/40-2/41	+2	1/0			2	13	L		B20L†[4]	1										4†,E,J†[1],N
3	4 L3 Lf *Thv*	●	5	48	1.2-1.6†	36-41†	+2	1/0			2	12	L		**BF32**		B/X11†		2†[1]							5†,E†[1],N
	6 L6/40 *LT*		7	28	1.6-1.3†	4/41-5/45†	+1	3/1	+F		2	14	L	1MT	T20L	1 (4)	11			2						6†,N,R
	6 M11/39 *MT*	●	11	29	1.2-1.6†	39-6/41†	+1	3/1			3	**12**		1MT	CMG†[1]	1	11†			4		B37				7†,A†[1],N
	12 M13/40 *MT*	●†	14	34	1.0-1.6†	12/40-5/45†	0	3			4	**11**		RST	T47	1			4†[1]	4	Opt2†[2]					8†,B†[1],C†[2],N
4	6 M14/41 *MT*		14	36	1.0-1.5†	42-5/43	0	3			4	12		RST	T47	1			4†[1]	4	Opt2†[2]					9†,B†[1],C†[2],N
	6 M15/42 *MT*		15	39	1.1-1.4†	9/43-5/45	0	3	+F		4	13		RST	T47L	1			4†[1]	4	Opt2†[2]					10†,B†[1],C†[2]
	5 MR/35(f) *MT*		10	27	1.2-1.4†	7-8/43	+1	4	+FSR		2	8	L	1MT	T37*					2†[1]	†[3]					11†,I†[1]
5	6 Semovente M40 da 75/18 *AG*		14	35	1.4	1-11/42	+1	3	+F		3	**11**		NT	B75*		11†				Opt2†[1]		H7[52]+†[2]	8		12,C†[1],F†,H†[2],N
	6 Semovente M41 da 75/18 *AG*		14.5	36	1.3-1.6†	1/42-5/45†	+1	3	+F		3	12		NT	B75*		11				Opt2†[1]		H7[52]+†[2]	8		12†,C†[1],H†[2],N
	4 Semovente M42 da 75/18 *AG*		15	37	1.1	9/43	+1	3	+F		3	13		NT	B75*		11				2†		H7	8		13,C†
6	2 Semovente M42 da 75/32 *AG*		15	41	1.5-1.6†	9/43-5/45†	+1	3	+F		3	13		NT	B75		11				2†[1]		H7	8		13†,C†[1]
	2 Semovente M43 da 105/25 *AG*		15.5	47	1.6	9/43	+1	8/3	+SR		4	13		NT	B105		11	●			2†		H7	8		14,C†
7	4 Semovente L40 da 47/32 *TD*		6.5	29	1.2-1.6†	7/42-5/45†	+2	3/1		●†	3	14	L	NT	B47	2										15†,N*,R
	4 Semovente M41M da 90/53 *TD*		16	32	1.3-1.6†	7-8/43†	+1	3/3/★	+F	●†	5	10		NT	B90L†[1]	1	9†						HE7			16†,D†[1]
	2 AS 42 *SC*†		4.5	27	1.4-1.5†	11/42-5/45†	+1	★			3	34†[3]	L		AAMG	1	11				4				9PP	17†,L†[1],N
	2 AS 42 aa *SC*†		4.5	35	1.5-1.6†	11/42-5/45†	+1	★			4	34†[2]	L	T	T20L†[1]	3 (4)					4					17†,G†[1],L†[2],N,AA†[1]
8	2 AS 42 cc *SC*†		4.5	30	1.5-1.6†	11/42-5/45†	+1	★			4	34†[2]	L	T	T20L†[1]	2					4				5PP	17†,G†[1],J†[1],L†[2],N
	2 Lince *SC*		3	28	1.6	44-5/45	+2	4/1	−F		2	35	L		BMG	1			2							18,E
	4 Lancia 1ZM *AC*	●	4	26	1.4-1.5†	17-6/41†	0	0			6	19†[1]	H	ST	CMG†[2]	1	**11**†[3]		–[R4]†[3]	8		†				19†,A†[2],F†[3],M†[1]
9	2 Fiat 611A *AC*	●	7	25	1.5-1.6†	35-6/41†	−1	0	+F		5	12†[1]	H	ST	CMG†[2]	1	**11**†[3]		–[R4]†[3]	[R2]						20†,A†[2],F†[3],M†[1]
	2 Fiat 611B *AC*	●	7	24	1.5-1.6†	35-6/41†	−1	0	+F		5	12†[1]	H	ST	T37	2	**11**†[2]		–[R4]†[3]	–[R2]			HE7			20†,F†[2],M†[1]
	4 AB 40 *AC*		7	27	1.6	41	0	1			4	29		1MT	CMG†	1	11		–[R2]†[1]	4	†[1]					21,A†,J†[1],N
10	6 AB 41 *AC*		7.5	29	1.3-1.5†	8/41-5/45†	0	1	+F		4	30		1MT	T20L	1 (4)	11		–[R2]	2						21†,N,R
	2 Autoprotetto S37 *APC*		5.5	25	1.4-1.6†	10/42-5/45†	−1	1		●	4	21†	L		AAMG	1					2				11PP	22†,R
	4 Autocannone da 65/17(b) *SPAtr*		3	30	1.5-1.6†	11/41-5/43	+1	★			4	23[1]		T	T65*†[1]	1	11				Opt2†		H7[52]+†[2]			23†,G†[1],H†[2],N
11	4 Autocannone da 20/65(b) *AAtr*		3	29	1.6†	11/41-5/45	+1	★			4	23[1]		T	T20L†[1]	3 (4)					†					23,G†,N,R,AA†
	4 Autocannone da 75/27 CK *AAtr*		7	27	1.5-1.6†	28-11/41	0	★			4	12[1]	H	T	T75*†		11				†[1]		AP7			24,D†,N,AA†[1]
	4 Autocannone da 90/53 *AAtr*		12	53	1.4-1.6†	5/42-8/43†	−1	★			4	15[1]		T	T90L†	2					†[1]					24,D†,N,AA†[1]
12	4 TL 37 *tr*		3.5	11	1.2-1.6†	38-5/45†	+1	★			5	16†[1]	L													25†,L†[1],N,R
	4 TM 40 *tr*		7.5	12	1.3-1.6†	40-5/45†	0	★			5	18†[1]	L												9PP/T6	25†,L†[1],N,R
	4 TP 32 *tr*		8.5	11	1.4-1.6†	33-11/43†	0	★			5	12†[1]	L												9PP/T4	25†,L†[1],N,R
13	4 Autocarretta *tr*		2.5	10	1.1-1.2†	8/41-5/45	+1	★			5†[1]	16[1]			AAMG	1	11				Opt4†				9PP/T-4	25†,L†[1],N,R
	4 Fiat 508 MC *tr*		1	10	1.3	39-5/45†	+2	★			2†[1]	31[1]	†		AAMG†[2]	2	11				Opt6†				9PP/T10	26†,K†[1],N,R
	6 Autocarro Leggero *tr*		4.5	12	1.3-1.6†	30-5/45†	0	★			6	20[1]													9PP†	27†,A†[2],K†[1],N,R
14	6 Autocarro Medio *tr*		7.5	14	1.3-1.6†	30-5/45†	0	★			7	18[1]													21PP	28†,N,R
	6 Autocarro Pesante *tr*		11	15	1.3-1.6†	33-5/45†	−1	★			7	15[1]	H												29PP	28†,N,R
																									36PP	28†,N,R

in a shallow, box-shaped tank above the engine compartment. (But apparently not many of the new types saw action.) The L3 Lf first saw combat during April 1936, in Ethiopia. It was used in the Spanish Civil War, and later in France, the Balkans, North Africa and Italian East Africa. Examples of the L3 Lf remained in service after 1941 but apparently did not see significant combat again. Each L3 battalion was authorized one flamethrower platoon (of four L3 Lf) per L3 company; however, the cavalry's squadron groups did not use the FT version. It is not known how many L3 Lf were built, but it was the most numerous L3 variant. One example of the trailered version captured by the British was sent to England for evaluation, and probably was the inspiration for the Churchill Crocodile.

†"B11" applies to the BMG; "X11" applies to the FT.

†The trailer's AF is "0". It may be voluntarily disconnected (unhooked) only at the start of its MPh—but only if the AFV is in neither Motion nor Melee, has not fired in the preceding PFPh, and its Inherent crew is/becomes CE. Under these conditions, unhooking is accomplished by declaring such, expending *six MP* in Delay, then exchanging the *L3 Lf* counter for an *L3 aa* marked with an AAMG Disabled counter; the AFV may then complete its MPh.

†Dates for use in France are 6/40, for North Africa 6/40-41, for East Africa 7/40-6/41, and for the Balkans 10/40-4/41. RF is always .3 higher (1.6 maximum) than the corresponding (for date and area) RF of the L3/35.



6. *L6/40:* Designed to replace the L3 in its cavalry and reconnaissance roles, the L6 was based on a much-modified L3 chassis, retaining the latter's two-man crew while providing increased firepower, protection and mobility. It was accepted for service in early 1940, though even in 1939 it would have been a barely adequate recon tank. By the time it went into general use in 1942 it was hopelessly obsolete, so after 283 had been built its production was cancelled in favor of the Semovente L40 47/32. A flamethrower version of the L6/40 was developed but did not enter service.

L6/40 were authorized in the RECo (*Raggruppamento Esplorante Corazzato*; armored reconnaissance task force) in the armored and motorized divisions, and were also used in several independent recon units. A total of 72 were sent to North Africa. 55 went to Russia where they equipped the LXVII Battaglione Motocorazzato Bersaglieri in the 3rd Celere Division; they were the heaviest Italian tracked AFV used on that front. In Yugoslavia, L6/40 were employed by the "San Giusto" Gruppo Squadroni Carri L of the 1st Celere Division. Some saw combat in Italy during September 1943, and later were used there by Italian Fascists and the Germans. The latter also employed them in the Balkans, but most of those they seized in September 1943 were exported to Croatia. The Yugoslav partisans also used a small number of captured L6. In Italian use an L6/40 platoon comprised four such AFV.

†Dates and RF for use in North Africa are 12/41-6/42 (1.6), 7-9/42 (1.4), 10-11/42 (1.5), 12/42-1/43 (1.6), and 2-5/43 (1.5). For Russia they are 2-6/42 (1.3), 7-8/42 (1.2), and 9-12/42 (1.3). For Yugoslavia they are 4/41 (1.3) and 5/41-9/43 (1.5). For Italy they are 9/43 (1.3), and 44-5/45 (1.4; Fascist use only).



7. *M11/39:* This tank carried a small turret with two 8mm MG, plus a medium-velocity 37mm gun in the right-front superstructure. It was intended to be the standard tank in the armored divisions' medium tank battalions, but the positioning of the gun in a limited-traverse mount proved shortsighted and soon the idea of a tank with a proper turret-mounted gun gained favor. As a result, only 100 were built. 24 were sent to Italian East Africa where, as the Medium Tank Special Company *(Compagnia Speciale Carri M)*, they served in the East African Armored Task Force *(Raggruppamento Corazzato Africa Orientale)*. Another 70, comprising the I and II Medium Tank Battalions *(Battaglioni Carri M)*, were sent to Libya in the summer of 1940—but by early February 1941 all 70 had been destroyed or captured by the British. An M11/39 platoon comprised four such tanks.

†B11 applies only to the 37 SA—as indicated by "B11: SA only" on the counter. All 1MT (D1.322) penalties apply to the CMG MA, which has 360° traverse independent of the bow-mounted NT 37 SA.

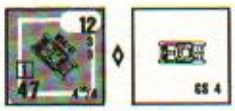
†Dates and RF for North African use are 8-12/40 (1.2), 1/41 (1.4), and 2/41 (1.6). For East Africa they are 7/40-1/41 (1.4), 2-3/41 (1.5), and 4-6/41 (1.6).



8. *M13/40:* Replacing the unsatisfactory M11/39 was the M13/40, which retained the main mechanical features of the M11 but carried a more powerful gun in a fully rotating turret. Its chief deficiencies were slow speed, unreliability, and a two-man turret in which the commander doubled as gunner. Nevertheless, in 1941 it became standard equipment in the growing number of medium tank battalions, and is perhaps the most famous Italian tank of WW2. It first saw action with the III Battaglione Carri M in the Sollum-Halfaya area of Libya, and later equipped the 132° "Ariete" Divisione Corazzata (132nd "Ram" Armored Division) in North Africa. The M13/40 also saw action with the 131st "Centauro" (Centaur) and 133rd "Littorio" (Bundle of Fasces) Armored Divisions in the Greek-Yugoslav campaigns during January-April 1941. For a short time in early 1941 one British armoured regiment (the 6th RTR) in Libya was equipped with captured M13/40, but lost them all during Rommel's first offensive. In September 1943, 22 were confiscated by the Germans who subsequently handed them over to the Fascist Italians. Sources conflict as to the total number of M13/40 produced, due to a number later being rebuilt as M14/41; some state as many as 1,049 while others claim only 710, but the figure most often given is 785. An M13/40 (or M14/41) platoon comprised four such tanks until late August 1941 when five were authorized.

†This AFV has no radio in scenarios set prior to 11/41 (see D14). As of 11/41 it is radio-equipped.

†Dates and RF for use in North Africa are 12/40 (1.3), 1/41 (1.2), 2/41 (1.0), 3/41 (1.5), 4-5/41 (1.3), 6-10/41 (1.5), 11/41-6/42 (1.0), 7/42 (1.1), 8-11/42 (1.2), and 12/42 (1.6). For the Balkans they are 1-4/41 (1.3) and 5/41-9/43 (1.6). For Italy they are 9/43 (1.6), and 44-5/45 (1.6; Fascist use only).



9. *M14/41:* This tank, which entered production in the latter half of 1941, was actually the M13/40 with certain modifications to increase horsepower and enhance its reliability in the desert. The M14/41 saw combat only in North Africa, equipping the tank battalions of the "Littorio" and "Centauro" armored divisions—but first went into action with the XI Medium Tank Battalion of the 101st "Trieste" Motorized Division, which arrived in North Africa with a mixture of M13/40 and M14/41. Sources vary as to the number of M14/41 produced, ranging from 695 to 895—the latter being the most commonly stated figure. Only one was seized by the Germans in September 1943.

†RF is 1.2 for 1-6/42, 1.0 for 7-11/42, 1.5 for 12/42-1/43, and 1.1 thereafter.



10. *M15/42:* This, the last version of the M13 series, was slightly longer than the preceding models and featured a higher-velocity gun, more powerful engine and improved armor. 112 were built before production was switched to the Semovente M42 da 75/18, and of that number 82 had been issued by September 1943. Their only use in combat by the Italian Army was against the Germans in that same month—most notably by the 135th "Ariete II" Division in and around Rome. The Germans subsequently confiscated 92 and in 1944 oversaw the production of another 28 (see German Vehicle Note 28), some of which they turned over to the Italian Fascists. The Germans also confiscated a prototype AA tank based on the M15/42 which carried four turret-mounted 20mm guns; some sources claim this gave them the idea for the Wirbelwind (German Vehicle Note 86). An M15/42 platoon comprised five such tanks.

†Dates and RF are 9/43 (1.2), and 44-5/45 (1.4; Fascist use only).



11. *MR/35(f):* The Germans provided Italy with a quantity of ex-French equipment in 1941-42, the most significant of which was 124 Renault R35 tanks. The Italians installed radios in them and renamed them MR/35. They were used to form the CI and CII Battaglioni Carri M, both of which were destroyed in Sicily in the summer of 1943.

†The CE DRM is +1 vs Indirect Fire, as well as vs Direct Fire that emanates from within the *turret's* rear Target Facing—as signified by "CE: +1RT" on the counter.

†"(f)" in the piece name stands for "French" for ESB, etc., purposes.

†RF is 1.2 for 7/43 and 1.4 for 8/43.



12. *Semoventi M40 & M41 da 75/18:* Inspired by the Sturmgeschuetz III, the Italians designed a similar AFV in early 1941 using the M13/40 hull and chassis with a box-shaped superstructure and 75/18 howitzer. Apparently 60 were built before production was switched in the latter half of that year to the same vehicle based on the M14/41 tank, of which 162 were ordered. Unlike the StuG III, the SMV 75/18 was intended to provide support and flank protection for medium tank units. In addition, it was often pressed into service as a TD, since compared to the M13 and M14 its armor was somewhat thicker and its gun had a longer effective range. Two SMV 75/18 battalions (*Gruppi Semoventi* 75/18) were assigned to the artillery regiment of each armored division, and several independent gruppi existed as well. Each contained two (sometimes three, in 1943) batteries of four (sometimes six) SMV each.

†*SMV M41 75/18* Dates and RF for use in North Africa are 1-6/42 (1.5), 7-11/42 (1.3), 12/42-1/43 (1.5), and 2-5/43 (1.3); for Italy they are 9/43 (1.6), and 44-5/45 (1.6; Fascist use only).



13. *Semoventi M42 da 75/18 & 75/32:* The last model of the SMV 75/18, ordered in October 1942, was based on the M15/42 tank and originally was intended to carry the new 75/34 gun. However, by March 1943 this gun was still in development so it was decided to install the 75/18 howitzer in the interim. Instead of equipping only Gruppi Semoventi, some SMV M42 75/18 were issued to tank battalions pursuant to a change in the tables of organization of these units at the end of 1942; whereas the old organization had consisted of three medium tank companies, the new TO&E comprised one such company plus two companies of SMV 75/18. In September 1943, SMV M42 75/18 saw action in Italy against the Germans who subsequently confiscated a number of them (see German Vehicle Note 39). The exact number of SMV 75/18 produced is unknown, but 250 (inclusive of those built during the German occupation of Italy) is a generally accepted approximation.

In mid 1943 about 25 SMV M42 were equipped with a version of the 75/32 field gun. In September of that year they saw combat in the Rome area as part of the 135th "Ariete II" Armored Division. Subsequently, a number of those confiscated by the Germans were turned over to the Fascist Italians—as were some SMV 75/34 (see German Vehicle Note 40).

†*SMV M42 75/32* Dates and RF are 9/43 (1.5), and 44-5/45 (1.6; Fascist use only).



14. *Semovente M43 da 105/25:* Nicknamed the "Bassotto" (Dachshund), the SMV 105/25 was the most potent Italian-designed AFV of WW2. Originally it was to be built on the hull and chassis of the P26/40 heavy tank (see German Vehicle Note 29), but due to delays in the development of the latter a much-modified version of the M15/42 was utilized instead. Apparently its only Italian combat use was with the DCI Gruppo Semoventi in the 235th AT/SPA Regiment of the 135th "Ariete II" Armored Division during the defense of Rome. A battery of SMV 105/25 comprised four such AFV. About three dozen were built prior to the armistice. See also German Vehicle Note 41.

It was envisioned that, once the newest AFV types were available in numbers, SMV 75/34 would be used as TD while SMV 105/25 would provide close support for P26/40 (see German Vehicle Note 29) tank units. The SMV 105/25 would also be used for counterbattery fire, while the older (and shorter-ranged) SMV 75/18 would be relegated to infantry support.



15. *Semovente L40 da 47/32:* The SMV 47/32 was derived from the L6/40 in order to increase the mobility of the 47mm gun. It was employed mainly as a TD in SMV 47/32 battalions (*Gruppi Semoventi* 47/32), but was usually relegated to infantry support due to its mediocre AT performance. A squadron of nine was authorized in the RECo (*Raggruppamento Esplorante Corazzato*; armored reconnaissance task force) in the armored and motorized divisions, as were two platoons in the NEC (*Nucleo Esplorante Celere*; fast recon group) of certain 1943-type infantry divisions. It saw action in Russia (19 vehicles in the XIII Gruppo Semoventi 47/32 of the 3rd Celere Division), Tunisia, Sicily and Italy. At least 78 were confiscated by the Germans, who retained a small number for themselves, handed over some to the Fascist Italians, and exported the rest to Croatia. About 300 were built, and a platoon comprised four such AFV (two, in an NEC).

†The Inherent crew is always CE (with all this entails) in the same manner as a British Carrier (D6.84)—as signified by "Always CE" on the counter.

†Dates and RF for use in Russia are 7-8/42 (1.5) and 9-12/42 (1.6). For Tunisia they are 12/42-5/43 (1.2). For Sicily they are 7/43 (1.3) and 8/43 (1.4). For Italy they are 9/43 (1.4), and 44-5/45 (1.5; Fascist use only).



16. *Semovente M41M da 90/53:* This AFV consisted of the 90mm AA gun mounted on the rear of a lengthened M14/41 hull and chassis, with the engine moved forward from the rear of the vehicle to a central position. It was hurriedly designed and put into production in early 1942 but, due to the large gun's overstressing the chassis and engine, its manufacture was halted after only 30 of the vehicles ordered had been completed. Another drawback was its lack of space for ammo stowage, only six rounds being carried on the SMV; consequently it was accompanied into action by a turretless L6/40 ammunition carrier. Despite having been conceived and built specifically for A-T use on the Eastern Front, due to their unreliability none were ever sent there. Instead, 24 were formed into the 10th Raggruppamento Semoventi (comprising the CLXI, CLXII and CLXIII Gruppi) which remained in Italy until June 1943 when it was sent to Sicily. There it fought against the U.S. 7th Army in the Licata area, where all but two of its SMV 90/53 were lost. The two survivors were ultimately abandoned in Messina. The few left behind in Italy were later seized and used by the Germans. A SMV 90/53 battery contained four such AFV plus four ammo vehicles.

†Most of the crew actually stood outside of and behind the AFV while serving the gun. Therefore, it cannot use TH Case E (i.e., it cannot fire at all if a Known enemy unit occupies its Location), and receives only a +1 DRM for being CE (no DRM if attacked through its unarmored Target Facing; D5.311) as signified by "CE: +1" on the counter. See also Italian Vehicle Note D.

†When an Ammo Vehicle (E10.) is called for by SSR or DYO purchase, use an *SMV 47/32*. This ammo vehicle has no Gun (place a Gun Disabled counter on it); instead its MA is a 2 FP AAMG (1 ROF; B11) which may fire only at a target that lies within its VCA. (Place an AA counter on it to signify the AAMG.) It also has a *red* CS#.

†RF for use in Sicily is 1.3 for 7/43 and 1.6 for 8/43.



17. *AS 42, AS 42 aa & AS 42 cc:* The AS 42 (AS stands for *Autosahariana*) was derived from the AB 41 armored car but, unlike the latter, was unarmored and lacked a rear driving position. Designed specifically for long-range reconnaissance in North Africa, it had an excellent cross-country range of almost 500 miles. It was also known as the *Camionetta Desertica mod. 42* (Desert Weapons Carrier model 1942), and was nicknamed *la Sahariana* (the Saharan). Its armament varied, so three different versions have been included in the game. AS 42 saw action in North Africa, Sicily and Italy. After the armistice some were used by the Fascist Italians, and by the Germans (including on the Eastern Front and in the Battle of the Bulge). In all, about 200 were built.

†All versions of the AS 42 are termed Scout Cars in deference to their historical role. However, they are considered *trucks* for all purposes [EXC: see Italian Vehicle Note L].

†*AS 42* Dates and RF for use in North Africa are 11-12/42 (1.5) and 1-5/43 (1.4). For Sicily they are 7-8/43 (1.4). For Italy they are 9/43 (1.4), and 44-5/45 (1.5; Fascist use only). *AS 42 aa* and *AS 42 cc* Dates and RF are the same, but with .1 added to the RF.



18. *Lince:* The Lince (Lynx) was a close copy of the British Daimler "Dingo" scout car. It was first considered in 1941, and was accepted for service at the end of March 1943. Production, however, did not start until 1944; hence all went to the Germans, who handed over some to the Fascist Italians. It was used for reconnaissance and liaison. 263 chassis were built, but only 129 vehicles were completed.



19. *Lancia 1ZM:* In late 1912 Italy became the first nation to use armored cars in true war operations, when several fought in North Africa during the Italo-Turkish conflict. Later, in 1915,



the Lancia 1Z appeared; then in 1917 came the 1ZM, derived from the 1Z. Both Lancia types saw action in WW1. In 1928 the 1ZMs' MG were replaced by more modern types. Afterwards, 1ZM were used by the Italians from 1937 in the Spanish Civil War, in the conquest of Ethiopia in 1935-36, and later in Italian East Africa. Some were also exported to China in 1937. A squadron comprised six cars; a section two. Each 1ZM was equipped with special rails to enable it to drive through and cut wire.

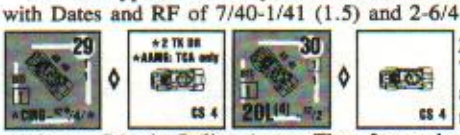
†This AFV may clear wire as if it were fully tracked (B26.53).

†Availability for WW2 scenarios is limited to East Africa, with Dates and RF of 7/40-1/41 (1.4) and 2-6/41 (1.5).



20. *Fiat 611A & 611B:* These armored cars, sometimes also referred to as AB 611 or AB 34, were built on the chassis of Fiat 6x4 military trucks. The 611A had two MG in the front of the turret, while the 611B carried a medium-velocity 37mm gun instead. Both types had a MG in the rear of the turret and another in the rear hull. Fiat 611 were used operationally in the 1935-36 conquest of Ethiopia and later in Italian East Africa. A total of 46 were built.

†For both types, availability for WW2 scenarios is limited to East Africa, with Dates and RF of 7/40-1/41 (1.5) and 2-6/41 (1.6).



21. *AB 40 & AB 41:* These two automotively advanced designs filled the requirement for modern AC in the Italian Army. They featured a 4×4 layout with four-wheel steering and fully independent suspension, freely rotating spare wheels (midway along the sides of the hull) to help prevent "bellying" when crossing obstacles, and a rear driving position. The AB 40 carried two coaxial MG in the turret and a third MG in the rear of the superstructure; the AB 41 had a 20mm gun in place of one turret MG, as well as an increase in engine horsepower. 24 AB 40 and about 560 AB 41 were built. They were issued to the reconnaissance units of armored, motorized and cavalry divisions, and were also used in independent recon companies and platoons. An AB platoon comprised four such vehicles. The AB 40 was apparently used only in North Africa, while the AB 41 saw action on all major fronts (including 30 sent to Russia).

The Germans confiscated 37 completed AB 41 plus another 20 in production. They also seized prototypes of the AB 43, a new model with a larger turret, 47mm gun and more powerful engine. After ordering certain modifications (including a reversion to the 20mm gun), they had 102 of this type built for them, which they designated AB 41/43.

†*AB 41* Dates and RF for use in North Africa are 8-10/41 (1.5), 11/41-5/42 (1.4), and 6/42-5/43 (1.3); for Russia they are 12/41-8/42 (1.5); for the Balkans they are 42-9/43 (1.4), and 44-5/45 (1.4; Fascist use only); for Sicily they are 7-8/43 (1.4); for Italy they are 9/43 (1.3), and 44-5/45 (1.4; Fascist use only).



22. *Autoprotetto S37:* This APC was based on the AS 37 truck, which in turn derived from the TL 37 AS, the desertized version of the TL 37 artillery tractor. The S37 was not intended as a carrier for armored infantry, but rather as a battlefield command/supply vehicle. However, it came to be used mainly for the escort of convoys in partisan-infested areas, predominantly in the Balkans. Apparently few if any were sent to North Africa. About 200 were built.

†This vehicle is treated as an *armored car* for movement (and all related) purposes [EXC: Reverse Movement costs it four times its normal hex entry cost— as signified by "REV×4" on the counter]; otherwise it is treated as an *armored halftrack*.

†Dates and RF for use in Russia are 10-12/42 (1.5) and 1-3/43 (1.6). For the Balkans they are 10/42-9/43 (1.4), and 44-5/45 (1.5; Fascist use only).



23. *Autocannoni da 20/65(b) & 65/17(b):* These were Morris CS 8 15-cwt trucks captured from the British in North Africa and modified to carry a 20mm AA or 65mm INF gun. Two Gruppi (the XIV and XV) Autocannoni da 65/17 were formed, each of three four-gun batteries, and to each Gruppo was attached a section of four Autocannoni da 20/65. They were assigned to the artillery of RECAM (*Reparto Esplorante del Corpo d'Armata di Manovra*, the Italian corps recon unit), later to the North African Fast Task Force *(Raggruppamento Celere AS)*, and still later to the 136th "Giovani Fascisti" (Young Fascists) Division. Autocannoni da 20/65 based on various other truck types also existed. The Italians apparently also designed other Autocannoni carrying 75mm and 100mm artillery pieces, but little has come to light regarding their development and use.

†"(b)" in the piece name stands for "British" for Hammada Immobilization and Sand Bog purposes. All Inherent armament on the vehicle is Italian—not British.

†The optional AAMG of the *Autocannone da 65/17* is always available and has a 1.2 RF. It may fire only at a target that lies within its VCA—as signified by "MG: VCA only" on the counter.

† *Autocannone da 20/65* use in 1945 is limited to Fascist Italians only. *Autocannone da 65/17* RF for use in North Africa is 1.5 for 11/41-6/42, 1.6 for 7-12/42, and 1.5 in 1943.



24. *Autocannoni da 75/27 CK & 90/53:* The Autocannone da 75/27 CK *(Cannone Krupp)* originated during WW1 when the Italians mounted Krupp 75mm AA guns on trucks. In 1927 the same guns were remounted on more modern Ceirano vehicles, and these are what the game pieces represent. 24 were used by the Italians in Spain late in that country's civil war. Some also saw action in North Africa during the early stage of that campaign. The Autocannone da 90/53 was a Lancia 3 RO 4×4 (or, later, a Breda *Dovunque* 6×6) heavy truck modified to carry the 90/53 AA gun. Designed for a multi-purpose AA-AT role, it appeared in 1941 and first entered combat in two Gruppi of the Ariete division's 132nd Artillery Regiment. Apparently no more (and quite possibly less) than 57 were built. For both the 75/27 and 90/53 Autocannoni, a battery comprised four vehicles.

†*Autocannoni da 75/27 CK* RF for use in North Africa is 1.5 for 6/40-2/41 and 1.6 for 3-11/41. *Autocannone da 90/53* Dates and RF for use in North Africa are 5-11/42 (1.4), 12/42 (1.6), 1-2/43 (1.5), and 3/43 (1.6); for Sicily they are 7/43 (1.5) and 8/43 (1.6).



25. *TL 37, TM 40 & TP 32:* From about 1926 the Italians produced various light, medium and heavy prime movers (which they called tractors) specifically for towing artillery. Three of the more common models were, respectively, the Fiat-Spa *Trattore Leggero 37* and *Trattore Medio 40*, and the Breda *Trattrice Pesante 32*. All were 4×4 vehicles with large, oversize wheels and four-wheel steering (the latter to make them more maneuverable on narrow mountain roads). Most also had fully independent suspension. By 1942 the TL 37 was the authorized divisional-artillery prime mover for Italian units in North Africa. The TP 32 also represents other less common artillery tractors built in the early and mid 1930s. After September 1943, Italian artillery tractors were used by the Germans in Italy and elsewhere in Europe.

†*TL 37* Dates and RF for North-Africa/the-ETO [EXC: the Balkans] are 6/40-6/41 (1.3), 7/41-5/43 (1.2), 7-8/43 (1.3), 9/43 (1.2), 10-12/43 (1.6), 1944 (1.5), and 1945 (1.5; Fascist use only). For the Balkans they are 10/40-4/41 (1.3), 5/41-9/43 (1.4), and 44-5/45 (1.5; Fascist use only). For East Africa they are 6/40-6/41 (1.5) and 7-11/41 (1.6).

TM 40 Dates and RF for North-Africa/the-ETO [EXC: the Balkans] are 9-11/40 (1.6), 12/40-3/41 (1.5), 4-6/41 (1.4), 7/41-5/43 (1.3), 7-8/43 (1.4), 9/43 (1.3), 10-11/43 (1.6), 12/43-44 (1.5), and 1945 (1.6; Fascist use only). For the Balkans they are 10/40-9/43 (1.6), and 44-5/45 (1.6; Fascist use only).

TP 32 Dates and RF for North-Africa/the-ETO [EXC: the Balkans] are 6/40-41 (1.5), 42-5/43 (1.4), 7-9/43 (1.4), and 10-11/43 (1.6). For the Balkans they are 10/40-4/41 (1.5) and 5/41-9/43 (1.6). For East Africa they are 6/40-11/41 (1.6).



26. *Autocarretta:* As the portee method of transporting light guns lost favor, certain types of light trucks were produced/adapted to tow them. These are generically represented by the Autocarretta or "little truck". (The Autocarretta was actually a specialized vehicle originally intended for use in the mountains. Thus its designation applied to the game piece is somewhat of a misnomer, but is used in this broader sense for the sake of convenience.)

†The optional AAMG is always available and has a 1.4 RF.

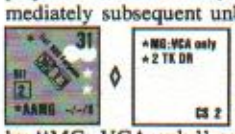
†Dates and RF for use in North-Africa/Russia/Italy are 8/41-5/43 (1.1),

9/43 (1.1), 12/43 (1.3), 1944 (1.2), and 1945 (1.2; Fascist use only). Elsewhere [EXC: NA in East Africa] they are 8/41-9/43 (1.2), 10-11/43 (1.5), and 44-5/45 (1.2; Fascist use only).



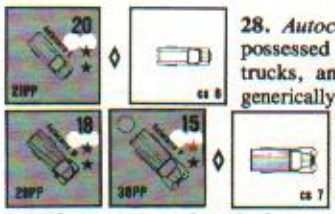
27. *Fiat 508 MC:* Derived from the civilian Fiat 1100, the 508 MC *(Militare Coloniale)* was one of the more common field cars used by the Italians. Of 4×2 configuration, it was produced in large numbers and several different variants. However, its use was limited mainly to HQ units (e.g., a normal infantry regiment was authorized only one—for the regimental CO). In German service it was designated the *1100 Mil.* The AAMG version actually represents the Furgone— a conversion of the 508 to somewhat the equivalent of a modern-day "mini-pickup" truck—with twin Fiat MG mounted on it. About 50 Furgoni were thusly armed, and were used for the AA defense of convoys in North Africa.

†When this vehicle is bogged, one (only) CX squad (even a Prisoner—but not a Guard) on foot expending ≥ four MF in the vehicle's Location (and declared to be assisting its unbogging) thereby allows the owning player to subtract two (one per crew/HS) from the colored dr of its immediately subsequent unbogging DR.



†The optional AAMG (i.e., the Furgone version) has a 1.4 RF, but is available only for 1942-43 scenarios set in North Africa. It may fire only at a target that lies within its VCA—as signified by "MG: VCA only" on the counter. It may not be Removed, but may be Scrounged as one or two LMG. The Furgone has no Passenger capacity. See also Italian Vehicle Note A.

†Availability in 1945 is limited to Fascist Italians only.



28. *Autocarri L, M & P:* The Italian Army possessed many diverse types and makes of trucks, and for this reason the game pieces generically represent the light *(Leggero)*, medium *(Medio)* and heavy *(Pesante)* classes. The payload capacity and minimum top speed of the latter two were standardized in 1937, but otherwise the manufacturers were largely free to use whatever engines, tires, etc. they wished. This, along with the existence of many vehicles produced prior to the standardization policy, caused no end of problems with spare parts. Italy began the war with some 42,000 vehicles (excluding cars and motorcycles), and through mid 1943 produced about 108,000 cars, trucks and artillery tractors. Generally speaking, motor transport was in short supply at all levels throughout the war. Efforts were made to keep at least the forces in North Africa and Russia at full establishment, but production could not keep up with losses despite receiving Opel Blitz and French Citroen trucks from the Germans. Even pressing into service as much captured British transport as possible could not greatly alleviate the transport shortage in Africa. Aside from a few specialized types, the Italians generally did not use trucks to tow their artillery.

†RF for all three types is 1.3 for an 8/41-9/43 scenario set in North-Africa/Russia/Italy, and for a 12/43 scenario set in Italy. Otherwise it is 1.4 [EXC: Dates and RF for use in East Africa are 6/40-6/41 (1.5) and 7-11/41 (1.6); RF for 44-5/45 use in Italy is 1.2, and 1945 availability is limited to Fascist Italians only].

ITALIAN MULTI-APPLICABLE VEHICLE NOTES

A. Make two To Kill DR when using the AP To Kill Table; only one DR (firer's choice) is used. This is signified on the counter by "2 TK DR".

B. The 4-FP BMG may be Scrounged as one or two LMG (as per D10.5); however, it is considered one MG for malfunction, repair and disablement purposes.

C. If this AFV is *non*-turreted, its AAMG may fire only at a target that lies within its VCA—as signified by "AAMG: VCA only" on the counter. If optional, the AAMG is always available with a 1.4 RF.

D. The MA may use neither Motion Fire nor Bounding (First) Fire—as signified by "No Bnd(F)F" on the counter.

E. If Stunned, this AFV may not regain CE status, may not fire any weapon, and is Recalled as per D5.34]; these are signified by "Stun=Recall & CE/FP NA" on the counter. The BMG, if present, *may* fire while the vehicle is HD—as signified by "BMG HD FP ok" on the counter.

F. The MA *and all MG* have Bll. This is signified by "Bll" in *red* on the counter (**bold** in the Vehicle Listing). If the vehicle is equipped with a hull Rear MG, that MG may be Removed as a dm MMG.

G. The MA may not use Bounding *First* Fire, or Motion Fire, through its VCA—as signified by "BndFF NA VCA" on the counter.

H. HEAT becomes available in September 1942, as signified by the superscript "52+".

I. The CMG of the *MR/35*, and the hull Rear MG of the *AB 40*, may be repositioned as a 2-FP AAMG. This can be done only by placing an AA counter on the AFV at the end of any friendly fire phase (not MPh) in which its Inherent crew is CE and could have fired the MG (even if malfunctioned) but did not. This AAMG may fire only at a target that lies within the AFV's TCA—as signified by "AAMG: TCA only" on the counter. The AAMG may be repositioned as the *MR/35* CMG, or *AB 40* hull Rear MG, by using these same principles to remove the AA counter.

J. The 20L MA is an ATR, has a maximum To Hit range of 12 hexes (as signified by "[12 TH]" on the counter), and may be Scrounged/Removed. It fires through its given CA in the normal manner. The MA of the *L3 cc* may not be used if it is CE, as signified by "CE use NA" on the counter.

K. If armed, this vehicle has an Inherent crew and thus a CS# instead of a cs#.

L. This vehicle is treated as an *armored car* for movement (and all related) purposes. [EXC: It may not cross a hedge. Note M below also applies.]

M. Reverse Movement costs this vehicle three times its normal hex entry cost— as signified by "REV×3" on the counter.

N. This vehicle was used in North Africa at some time from 6/40 to 5/43 (within the limits of its own given Dates). If the superscript "T" appears, its use in North Africa was limited to Tunisia, 11/42-5/43 (within the limits of its own given Dates).

R. This vehicle was used in Russia at some time from 8/41 to 3/43 (within the limits of its own given Dates).

AA. The MA has AA capability—as signified by "MA: AA" on the counter.

ITALIAN ORDNANCE NOTES

Italian ordnance used a "#/#" system of nomenclature, with the first number giving the caliber size in mm and the second the barrel length in calibers. If additional identification was needed, the model year was added as a suffix.

[Note: All Allied Italian combat formations were re-equipped by the British in early 1945. Therefore, for DYO scenarios set in that year, the Allied-Italian player may purchase British 76-MTR/AT/88-ART/40L-AA (only), as if his OB were British. He treats such Guns as non-Captured.]*



1. *Mortaio da 45 "Brixia":* This weapon, the standard "assault and support" mortar of the Italian Army, was accepted for service in 1935 and first saw action in East Africa that same year. Its design embodied a number of unusual— and overly complex—features. Instead of being fired by simply dropping a round down the muzzle, a lever arm was pulled to open the top of the breech, and the projectile (a standard grenade with a finned attachment at the rear) was hand-loaded through the opening; the lever was then pushed to insert a firing cartridge (from a ten-round magazine) and close the breech. Firing was accomplished by squeezing a trigger. Range could be varied by the normal method of setting elevation, and also by an adjustable gas port which vented a portion of the propellant gas. In action the firer normally lay prone, with his chest on a padded frame cushion attached to the mortar's rear leg. For transport, the legs folded and the entire weapon was worn like a backpack, with the cushion easing the load on the bearer's back.

The "Brixia" (its designer's name) was normally used in mortar squads of three weapons each. Three such squads formed a platoon, two of which were authorized in the SW company *(compagnia armi di accompagnamento)* of an infantry battalion. The battalion often assigned one or two of these squads to each of its rifle companies. In an Alpini battalion, each company usually contained an inherent Brixia squad instead. Bersaglieri, cavalry and Libyan units were not normally authorized 45mm mortars. Some divisional 81mm mortar battalions contained a company of three Brixia platoons in lieu of one 81mm company until such time as the latter could be provided. Early in the war the Italians also received a number of ex-French 60mm mortars.

ITALIAN ORDNANCE LISTING

#	Name	Type	CSize	ROF (IFE)	B#	Range	M#	TSize	Dates	Special	BPV	RF	Notes
6	Mortaio da 45 "Brixia"	MTR	45*	2	11	2-13	—	—	35-5/45	4PP	—	—	1,N
4	Mortaio da 81/14	MTR	81*	3		3-102	11	+1	36-5/45†	NT, QSU, s8, IR	28	1.0-1.5†	2†,N
6	Fucile-cc S	ATR	20L	2		12	—	—	40-5/45	5PP	—	—	3,N
4	Cannone-cc da 37/45	AT	37L	3		120	12	+1	36-41	NT, QSU	28	1.4-1.5†	4†,C,N,R
4	Cannone da 47/32	AT	47	3		107	12	+1	36-5/45†	NT, QSU, no Gunshield, Towed^{A1+}†	29	.9-1.6†	5†,A,C,N
4	Cannone da 65/17	INF	65*	1	11	163	10	+1	13-5/45†	NT, H6^{S2+}†^{1}, no Gunshield	21	1.0-1.5†	6†,A,C,H†^{1},N
2	Cannone da 70/15	INF	70*		11	166	11	+1	04-11/41	NT, QSU, Acc, NA†^{1}, no Gunshield, h-d	20	1.2-1.4†	7†,A,B†^{1},R
4	Obice da 75/13	ART	75*	1		206	10	+1	18-5/45†	NT, QSU	26	1.2-1.6†	8†,A
4	Cannone da 75/27	ART	75*	1	11	243	8	0	06-5/45†	NT, QSU, H6^{S2+}†^{1}	25	1.2-1.5†	9†,A,C,H†^{1},N
4	Obice da 75/18	ART	75*	1		239	9	0	11/41-5/45†	NT, QSU, H6^{S2+}†^{1}, s8	29	1.3-1.6†	10†,A,H†^{1},N
4	Cannone da 75/32	ART	75	1		313	8	0	8/42-9/43†	NT, QSU, H6^{S2+}†^{1}, s8	33	1.4-1.6†	11†,H†^{1}
4	Obice da 100/17	ART	100*	1	11	232	6	0	18-5/45†	NT, H6^{S2+}†^{1}	26	1.3-1.6†	12†,A,H†^{1},N
4	Cannone da 105/28	ART	105			330	6	−1	18-5/45†	NT, s8	26	1.2-1.6†	13†,N
2	Obice da 149/13	ART	150*			220	5	−1	14-5/45†	NT	38	1.4-1.6†	14†,N
2	Cannone da 149/35	ART	150		11	265	1	−1	00-8/43†	NT, s8, RFNM, no IF, Acq. NA†^{1}	25	1.5-1.6†	15†,B†^{1},N,R
2	Cannone da 149/40	ART	150L			593	-1	−1	35-3/43†	NT, RFNM	33	1.5-1.6†	16†,N
4	Cannone-mitr. da 20/65	AA	20L	3 (4)		138	11	+1	35-5/45†	T, LF [NT, 20†, 2 ROF]	26	1.0-1.6†	17†,A,C,N
4	Cannone-aa da 75/39	AA	75L	2			6	−1	8/42-3/43	T, "16" AP TK#†	39	1.3-1.6†	18†
4	Cannone-aa da 75/46	AA	75L	2		324	5	−1	34-5/45	T	40	1.4-1.6†	19†,N
4	Cannone-aa da 90/53	AA	90L	2		439	3	−1	5/42-5/45†	T	48	1.5-1.6†	20†,N,R

Frontline use of the Brixia declined as the war progressed, especially in North Africa where by 1942 it was no longer even authorized in first-line divisions. However, in late 1943 when the first Allied Italian units were being formed, each battalion was authorized 18 Brixias. Large numbers of Brixias and other types of Italian SW were used by partisans in the Balkans.



2. *Mortaio da 81/14:* First used in Ethiopia in 1936, the 81/14 was a close copy of the French Brandt 81mm mortar. It fired both light (7-lb) and heavy (15-lb) bombs, and had the longest range of any medium mortar used during the war. Its ammunition was interchangeable with that of U.S. and French 81mm mortars, and it could also fire German 81mm rounds to just over 2000m. Blackshirt legions, and the infantry regiments in normal, motorized and "truckable" *(autotrasportabile)* infantry divisions were usually authorized one company of 81/14s each. However, 1942 "North-Africa Type" *(Tipo AS)* infantry regiments, as well as Alpini regiments, were authorized a company in each battalion instead. Cavalry, Libyan, parachute and Bersaglieri regiments normally contained no 81/14s (though in North Africa some of the latter actually did at one time or another). Both infantry and *autotrasportabile* divisions—except those designated *Tipo AS*—were also authorized a divisional mortar battalion of three companies. The "Pasubio" and "Torino" *autotrasportabile* divisions each had two such battalions in Russia. An 81mm mortar company comprised three platoons of two (sometimes three, especially later in North Africa) mortars each. A number of Polish prewar M28 81mm mortars were also supplied to the Italians.

†Dates and RF for use in North Africa are 6/40-5/41 (1.3), 6/41-4/42 (1.2), 5-12/42 (1.1), and 1-5/43 (1.0). For East Africa they are 6/40-6/41 (1.3) and 7-11/41 (1.4). For Russia they are 8/41-1/43 (1.1), 2/43 (1.3), and 3/43 (1.5). Elsewhere they are 6/40-9/43 (1.2), 10-11/43 (1.3), 12/43 (1.2), 1944 (1.1), and 1945 (1.1; Fascist use only).



3. *Fucile-cc S:* Like several other nations, Italy adopted a Swiss 20mm ATR—in this case the s18-1000 (and the very similar s18-1100) which in Italian service was designated the *Fucile-controcarro S* (anti-tank rifle Solothurn). It was capable of single-shot and semi-automatic fire (or full-auto in the 1100 version) from either a small two-wheeled carriage or an attached bipod. It was first issued in 1940, two per battalion, to troops in North Africa (especially Bersaglieri and Libyan units). Later, as its availability increased, its employment became more widespread and as many as six per battalion were authorized. Fucile-cc S were often manned by the ex-crews of 45mm mortars being taken out of frontline service. Another ATR used by the Italians was the Polish Marosczek wz 35. The Germans captured about 2,000 of these in September 1939, and during the winter of 1941-42 they turned over the bulk of them to the Italian forces in Russia.

ERRATA: The AP Basic To Kill number of the 20L ATR is "6"; that of the 1PP (ex-Polish) ATR is "5".



4. *Cannone-cc da 37/45:* This was a license-built version of the German 3.7cm PaK 35/36. Apparently it was not widely used, and little has come to light regarding its employment. (Indeed, even Italian documents rarely mention it.) North-African-type Bersaglieri truckborne and motorcycle companies were each authorized a platoon of two 37/45, and some (carried and usually fired *en portee*) were encountered by the British during the early fighting in Cyrenaica. Apparently this use in North Africa was its only significant combat service—though in the 1930s two companies had been used by Italian troops in the Spanish Civil War.

†Dates and RF for use in North Africa are 6/40-2/41 (1.4) and 3-12/41 (1.5).



5. *Cannone da 47/32:* This was the Boehler M1935, designed in Austria, which the Italians produced in several licensed versions. They used it as an AT gun, for infantry support and as pack artillery, while modified versions were used in the M13-M14 tanks and SMV 47/32. One drawback to its design was the lack of a gunshield; another was that those built prior to 1939 lacked a towing eyelet, so had to be manhandled or carried *en portee*. Overall it was a good gun, but due to the lack of a suitable replacement it had to soldier on long after becoming obsolete. In mid 1940 there were 928 in Italian service (including 127 in Libya); by Sept. 1943 more than 3,000 had been produced.

47/32 were employed in the divisional AT company generally authorized in each normal and "truckable" *(autotrasportabile)* infantry, Celere, Blackshirt and Libyan division. Each motorized infantry regiment was authorized a company, as was each Bersaglieri regiment; however, by mid 1941 many of the latter had one company per battalion instead. Since it was planned that 47/32 eventually would replace all 65/17 in the infantry support role, some regiments possessed a 47/32 company instead of their 65/17 battery—and, from early 1942, infantry regiments in North Africa were each authorized twelve 47/32 instead. Since the gun could be para-dropped, the "Folgore" parachute division used it as divisional artillery—and some of this division's regiments and battalions contained a 47/32 company apiece. A number of 47/32 AT battalions also existed; aside from being used at corps level, by mid 1941 one was generally attached to each armored division. Most divisions sent to Russia contained at least two divisional AT companies. A 47/32 company usually comprised eight guns in four platoons. Apparently no 47/32 were sent to Italian East Africa.

Other AT guns used by the Italians included a small number of German 7.5cm PaK 97/38 (36 were turned over to the 8th Army in Russia), 7.5cm PaK 40 (a few) and 8.8cm FlaK (a small number were used in North Africa), and the French 25mm mle 1934.

†The 47/32 may not be towed in any scenario set prior to August 1941—as signified by "Towed[A1+]" on the counter.

†Dates and RF for use in North Africa are 6/40-5/41 (1.2), 6-10/41 (1.1), 11/41-4/42 (1.0), and 5/42-5/43 (.9). For Russia they are 8/41-1/43 (1.0), 2/43 (1.2) and 3/43 (1.4). Elsewhere [EXC: NA in East Africa] they are 6/40-9/43 (1.3), 10-11/43 (1.6), 12/43 (1.3), 1944 (1.2), and 1945 (1.2; Fascist use only).



6. *Cannone da 65/17:* This was an Italian-made mountain gun dating from 1913. Alpini units used it in WW1, but by 1940 it had been relegated mainly to infantry support. In mid 1940 there were 700 in service, including 146 in Libya and 312 in Italian East Africa. Blackshirt legions, and the infantry regiments in both normal and "truck-able" *(autotrasportabile)* infantry divisions, were each authorized one battery of four 65/17 (though some used 47/32 instead; see Note 5 above). In a few rare cases—mostly in East Africa—65/17 were employed as divisional artillery. (They had also been used thusly by the Nationalists during the Spanish Civil War.)

†Dates and RF for use in North Africa are 6-12/40 (1.1), 1-10/41 (1.2), 11/41-4/42 (1.3), 5-12/42 (1.4), and 1-5/43 (1.5). For East Africa they are 6/40-6/41 (1.0) and 7-11/41 (1.1). For Russia they are 8/41-42 (1.1), 1/43 (1.5) and 2-3/43 (1.6). Elsewhere they are 6/40-9/43 (1.1), and 1944-45 (1.3; Fascist use only).



7. *Cannone da 70/15:* This ancient gun, which lacked any type of recoil mechanism, was first produced in 1902 as a mountain artillery piece for Alpini units. It was later superseded by the 65/17 and passed to the infantry. Its only significant use in combat during WW2 occurred in Italian East Africa, where 92 were present in July 1940. It was probably employed at the regimental level, like the 65/17.

‡RF for use in East Africa is 1.2 for 6/40-6/41 and 1.3 for 7-11/41.



8. *Obice da 75/13:* The Skoda 7.5cm vz 15 was one of the most successful mountain howitzers ever produced. Many were taken over by the Italians after WW1 and, designated the 75/13, were issued to Alpini units to replace their 65/17. In mid 1940 the army had 1,187 75/13 in service, including 32 in Italian East Africa. An Alpini regiment, whose structure allowed it to operate independently whenever necessary, often had a 75/13 battalion *(gruppo)* directly attached, one battery (four guns) of which could in turn be assigned to each of the regiment's battalions. Each of the three Alpini divisions sent to Russia in 1942 contained two 75/13 battalions in its artillery regiment. 75/13 were occasionally used as divisional artillery by other types of divisions as well.

†Dates and RF for use in Russia are 9-12/42 (1.3), 1/43 (1.2), 2/43 (1.5), and 3/43 (1.6). For East Africa they are 6/40-6/41 (1.5) and 7-11/41 (1.6). Elsewhere [EXC: NA in North Africa] they are 6/40-9/43 (1.2), 1944 (1.4), and 1945 (1.4; Fascist use only).



9. *Cannone da 75/27:* This was the standard light field piece in the artillery regiment of most Italian divisions. The game piece actually represents four different pre-WW1 guns that are equivalent in game terms and historical role: the 75/27 m06, m11 and m12, and the 77/28. The m06 was a license-built Krupp product, 51 of which were later modified by the Italians, becoming the m12. The m11 was an import from France, notable for being the first service artillery piece in the world to have split trails. The 77/28 was a Skoda-built combination field/mountain gun; among other uses it was issued to Italy's two Libyan divisions. In mid 1940 there were 3,091 75/27 in army service (including 499 in Libya and 24 in Italian East Africa), plus 245 77/28. A battery comprised four guns. During the Spanish Civil War the 75/27 was employed by some Nationalist units as divisional artillery.

†Dates and RF for use in East Africa are 6/40-6/41 (1.3) and 7-11/41 (1.4). Elsewhere they are 6/40-9/43 (1.2), and 1944-45 (1.4; Fascist use only).



10. *Obice da 75/18:* This game piece represents two guns: the 75/18 m34, which was a modern mountain howitzer derived in 1934 from the 75/13; and the 75/18 m35, a normal field howitzer derived from the m34. In June 1940 only 114 m34 were in service, and by Sept. 1942 only 230 m34 and 68 m35 had been produced. (Another 54 of the latter were built by mid 1943.) Both types were employed as divisional artillery in a few select units, mostly in North Africa and Russia. A battery comprised four guns. This ordnance was also used as the MA of the Semovente 75/18, which is one reason relatively few of the towed versions were built.

†Dates and RF for use in North Africa are 11/41-5/43 (1.4). For Russia they are 7-12/42 (1.3), 1/43 (1.5) and 2-3/43 (1.6). Elsewhere they are 42-9/43 (1.5), 12/43 (1.5), 1944 (1.4), and 1945 (1.4; Fascist use only).



11. *Cannone da 75/32:* The 75/32 was virtually identical to the 75/18 m35, but possessed a longer barrel for increased muzzle velocity and range. It was accepted in 1937 but did not enter production until 1940. By Sept. 1942 only 39 had been built—and by mid 1943 only 98 more had been produced. Though intended as an artillery piece, the 75/32 was used primarily as an AT gun—most notably in Russia where 36 were employed in the three battalions *(gruppi)* of the 201st Motorized AT Regiment, with four guns per battery. Apparently only a very small number were sent to North Africa, and saw little if any action there.

†Dates and RF for use in Russia are 8-12/42 (1.4) and 1-3/43 (1.6). For Italy they are 9/43 (1.5).



12. *Obice da 100/17:* Another old Austro-Hungarian howitzer—in this case the Skoda 10cm vz 14. A large number were taken over by Italy in 1918, some of which were used in the Spanish Civil War. In mid 1940 there were 1,524 in Italian service (including 172 in Libya and 14 in Italian East Africa), plus 181 Skoda 10cm vz 16, which was a mountain version. In addition, the Germans later gave the Italians 400 of the vz 14/19 (which the latter designated the 100/22), an improved version of the vz 14. The Italians used the 100/17 as a companion piece to the 75/27 in the artillery regiment of various divisions; however, as the war progressed it tended to be supplanted by the 105/28. In Russia the 100/17 was employed only by the "Pasubio" and "Torino" *autotrasportabile* divisions and the 3rd Celere Division; the first two each contained one battalion *(gruppo)* throughout the campaign, while the latter contained one only in 1942. An artillery gruppo normally comprised twelve guns in three batteries.

With its M# changed to "9", the game piece also represents the 105/11, a French mountain gun used by the Alpini divisions sent to Russia.

†Dates and RF for use in North Africa are 6/40-41 (1.3) and 42-5/43 (1.4). For East Africa they are 6/40-6/41 (1.5) and 7-11/41 (1.6). For Russia they are 9/41-42 (1.3), 1/43 (1.4), and 2-3/43 (1.6). Elsewhere they are 6/40-9/43 (1.3), 10-12/43 (1.6), 1944 (1.5), and 1945 (1.5; Fascist use only).



13. *Cannone da 105/28:* This was a license-built version of the French 105mm mle 1913 (also known as the L 13 S). The Italians used it as corps artillery, though it was also employed at divisional level in place of the 100/17. The game piece also represents the 105/32, a modified version of the old Skoda 10.4cm vz 15; it too was used at corps level. In mid 1940 there were 956 105/28 and 227 105/32 in Italian service, including (respectively) 97 and 0 in Libya, and 59 and 4 in Italian East Africa. The 105/28 was also used as a corps-level gun in the Spanish Civil War.

†Dates and RF for use in North Africa are 6/40-41 (1.4) and 1/42-5/43 (1.3). For East Africa they are 6/40-6/41 (1.4) and 7-11/41 (1.5). For Russia they are 9/41-6/42 (1.3), 7-12/42 (1.2), 1/43 (1.3), 2/43 (1.5), and 3/43 (1.6). Elsewhere they are 6/40-9/43 (1.4), 10-12/43 (1.6), 1944 (1.5), and 1945 (1.5; Fascist use only).



14. *Obice da 149/13:* This piece represents two old Skoda howitzers—the 15cm vz 14 and vz 14/16—taken over by the Italians from the Austro-Hungarian Empire after WW1. The first they designated the 149/12, and the second the 149/13. Some were sent to Spain where they were used by the Nationalists as corps/army artillery. In mid 1940 there were 592 149/12 and 490 149/13 in Italian service, including 37 in Libya and 4 in Italian East Africa (all 149/13s). Both types were used as corps artillery. Five battalions *(gruppi)* of 149/13 (48 guns total, four per battery) served in the three corps of the 8th Army in Russia. The Italians referred to corps-level guns and howitzers as "heavy field" *(pesanti campali)* artillery. Another corps gun used by the Italians was

the 6-in. howitzer imported from Great Britain after WW1; In June 1940, 88 were in Italian service. Italy also produced a modern, efficient corps howitzer—the 149/19— but its rate of production was low and it apparently saw little combat. The Germans kept it in production after 1943 for their own use.

†Dates and RF for use in North Africa are 6-12/40 (1.5) and 1/41-5/43 (1.4). For East Africa they are 6/40-11/41 (1.6). For Russia they are 7/42-1/43 (1.4) and 2-3/43 (1.6). Elsewhere they are 6/40-9/43 (1.5), and 1944-45 (1.6; Fascist use only).





15. *Cannone da 149/35:* Another ancient gun still in service during WW2 was the 149/35, which was first produced around the turn of the century. It lacked a recoil mechanism, so ramps were placed behind its wheels to keep it from rolling farther backward each time it was fired. To further inhibit rolling, large flat plates were strapped around the rims of its wheels (as was commonly done during WW1), even though this reduced its towing speed to only 4-5mph. In June 1940 there were 895 in Italian service. 149/35 were employed at army level in the Balkans and North Africa, with four per battery.

†Dates and RF for use in North Africa are 6-12/40 (1.5), 1-10/41 (1.6), and 11/41-11/42 (1.5). For the Balkans they are 10/40-4/41 (1.5). For Sicily they are 7-8/43 (1.6).





16. *Cannone da 149/40:* To replace the 149/35 and miscellaneous other old, large-caliber guns, the 149/40 was produced from about 1935. However, as in so many other cases, the Italian arms industry was unable to effect rapid production, and by June 1940 only 39 were in service. In Sept. 1942 there were 36 in Russia, 12 in North Africa and three in Italy. A companion piece to the 149/40 also existed. This was the 210/22, accepted for service in 1938. Again, the number built was small: 16 were in service in June 1940, and only 20 in Sept. 1942. Apparently the 210/22 saw combat only in Russia, with the LXXIII Gruppo (15 guns). The Germans considered the 149/40 and 210/22 good designs, and kept both types in production after 1943. In 1941 the Italians received 38 German 15cm sFH 18 howitzers; designated the 149/28, 24 were used in Russia (in the XXIV and L Gruppi) and 14 in North Africa (in the CXXXI and CXLVII Gruppi). In Russia, all three of these gun types were employed in the 9th Army Artillery Brigade of the 8th Army, with four guns per battery. The Italians referred to army-level guns and howitzers as "heavy" *(pesanti)* artillery.

†Dates and RF for use in North Africa are 6/41-11/42 (1.6). For Russia they are 8-12/42 (1.5) and 1-3/43 (1.6).





17. *Cannone-mitragliera da 20/65:* This was the standard Italian light AA gun, which the Italians also viewed as a heavy machinegun *(mitragliera)* and light AT gun. Adopted in 1935, it was exported to China in the late 1930s, and about sixty were used in the Spanish Civil War. By mid 1940 there were 1,088 in army service, including 209 in Libya and 24 in Italian East Africa; by Sept. 1942 its total number had increased to 2,788 (including 326 on static mounts). An artillery regiment was normally authorized one battery of 20/65 if in an infantry division, or two batteries in most other types of divisions. By mid 1941 in North Africa, at least some motorized infantry and Bersaglieri regiments contained a 20mm battery as well (or instead). All divisions sent to Russia contained two 20/65 batteries—except for the "Vicenza" occupation division, which had none. A squadron of eight 20/65 (two per platoon) was authorized in the RECo (*Raggruppamento Esplorante Corazzato*; armored recon task force) of armored and motorized divisions. The 1942 armored division was authorized one battery each in its tank and Bersaglieri regiments, and two more (plus an additional section) in its artillery regiment. After 1943 the Germans kept the 20/65 in production for their own use. A 20/65 battery comprised four two-gun sections.

†When using Limbered Fire, the Barrel Length modification (C4.1) on the counter's LF side is used for To Hit purposes; the Basic To Kill number, however, is still determined using the Caliber Size and Length printed on the unlimbered side.

†Dates and RF for use in North Africa are 6/40-5/41 (1.2), 6/41-4/42 (1.1), and 5/42-5/43 (1.0). For East Africa they are 6/40-6/41 (1.5) and 7-11/41 (1.6). For Russia they are 8/41-1/43 (1.2), 2/43 (1.4) and 3/43 (1.6). Elsewhere they are 6/40-11/43 (1.3), 12/43 (1.4), 1944 (1.3), and 1945 (1.3; Fascist use only).





18. *Cannone-aa da 75/39:* This was a pre-war Vickers AA gun captured by the Germans during their 1940 campaign in the West. Later they turned over 54 to the Italians who used them as AT guns in Russia, each division in that theater (except for the "Vicenza" occupation division) receiving a battery of six.

†This Gun's AP Basic To Kill number is "16"—as signified by "AP TK#: 16" on the counter.

†RF for use in Russia is 1.3 for 7/42-1/43, 1.5 for 1/43, and 1.6 for 2-3/43.





19. *Cannone-aa da 75/46:* Design work on this Italian AA gun started in 1926, and it was adopted in 1934. In mid 1940 there were 76 in army service (including 8 in Libya and 24 in Italian East Africa), but by late 1942 only 226 had been produced. Two 75/46 battalions *(gruppi)* were included in the CSIR (*Corpo Spedizione Italiano in Russia*—Italian Expeditionary Corps in Russia) in 1941; on that front in 1942 the 8th Army contained five such battalions. The 75/46 was sometimes called on to double as an AT gun, a role it performed most effectively. After September 1943 the Germans used a number of 75/46, including on the Eastern Front.

†RF for use in North Africa is 1.5 prior to 1942, and 1.4 for 1/42-5/43. Elsewhere it is 1.5 for 6/40-9/43 [EXC: 1.6 for East Africa, 7-11/41], 1.6 for 10-11/43, and 1.6 for 1944-45 (Fascist use only).





20. *Cannone-aa da 90/53:* This gun originated in 1939; by June 1940, 1600 had been ordered but none were yet available. It was an excellent weapon, comparable in many ways to the German "88". Indeed, its maximum range exceeded, and its armor penetration roughly equalled, that of the German gun. Unfortunately for the Italians the 90/53 was never available in sufficient quantity, there being only 539 available in July 1943—the majority of which were in static emplacements. No 90/53 were employed in Russia. A battery comprised four guns. After Italy's capitulation, the Germans not only seized all the 90/53 they could but also kept it in production for their own use; at the end of 1944 they had 315 in service.

† Dates and RF are 5/42-9/43 (1.5) [EXC: NA in Russia], 10-11/43 (1.6), and 1944-45 (1.6; Fascist use only).

ITALIAN MULTI-APPLICABLE ORDNANCE NOTES

A. This Gun may be Animal-Packed. Rules for this capability will be provided in the ASL Japanese module.

B. This Gun may not use Target Acquisition (C6.5-.58)—as signified by "Acq. NA" on the counter.

C. This Gun may be carried *en portee*, which means it may be loaded onto a vehicle (during setup/play) and carried as Passenger PP. As a Passenger, the Gun and its ammo together use all but 5PP of the vehicle's Passenger capacity. The Gun may be porteed only by an *Autocarro L* [EXC: an *Autocarro M* for the 65/17; an *Autocarro P* for the 75/27] that, prior to setup, was noted on a side record as being able to portee a Gun of that particular Caliber Size (C2.21) and Barrel Length (C4.1).

The principles of (un)loading a Gun to/from portee status are the same as for the 2pdr Portee in British Vehicle Note 77, except that here the Gun crew (un)loads as a Passenger rather than as an Inherent Crew, and a QSU Gun is not (un)loaded limbered. When a Gun has been thusly loaded, it is marked with an En Portee counter. A vehicle porteeing a Gun is *not* flipped over to its Wreck side if it becomes Immobilized, and the Gun may be unloaded (at which time the vehicle counter is then flipped over). If a vehicle porteeing a Gun is eliminated, the Gun is eliminated too. A vehicle may not simultaneously have one Gun en portee and another hooked up for towing. An AT (with a gunshield) being porteed can provide gunshield benefits to its Passenger crew in the same way the 2pdr Portee MA does to its Inherent crew.

The 37L AT (only) may be fired by its Passenger crew while being porteed [EXC: it may not use Bounding (First) Fire]. While loaded on the vehicle, it is treated as a NT Gun able to fire only at a target that lies within its portee's "rear" VCA.

In a pre-8/41 DYO scenario, The Italian player may not purchase (as per H1.4/H1.441) a *towing* vehicle for a Gun that is capable of being porteed; however, he may purchase a *portee* vehicle for it if he has paid the 10% expenditure for a motorized unit (H1.4) and/or if the scenario

Ordnance Note C

is set in North Africa. Otherwise he may use only Wagons to tow his Guns in a pre-8/41 DYO scenario.

H. HEAT becomes available in September 1942—as signified by the superscript "$^{42+}$". **ERRATA:** 65mm HEAT has a Basic TK# of "11", while that for 100mm HEAT is "14".

N. This weapon was used in North Africa at some time from 6/40 to 5/43, within the limits of its own given Dates.

R. This Gun was *not* used in Russia.

ITALIAN SW ALLOTMENT CHART[1]							
	LMG	MMG	HMG	ATR[2]	LT. MTR	FT[3]	DC[3]
thru 7/41	7	13	18	–/16[4]	6	3	1
8/41-4/42	6	12	17	–/15[5]	8[6]	3[7]	1
5/42-9/43	6	12	17	8[5]/14[6]	9[6]	3[7]	1
10/43-44	6	12	17	–/18	9	3	1
1945[8]	6	12	17	–/16	9	3	1
# In Game	*12*	*6*	*6*	*6/6*	*6*	*6*	*6*

[1]: SW allotted according to Equivalent number of squads.

[2]: ATR/20L ATR.

[3]: Allotted according to Equivalent number of Assault Engineers; see 1.22.

[4]: Available only if the scenario is set in North Africa.

[5]: Reduce this # by one if the scenario is set in North Africa.

[6]: Double this # if the scenario is set in North Africa. For every 15 3-4-7s purchased (FRD), one light mortar may be exchanged for a 20L ATR (up to the total number of light mortars received).

[7]: Vs. Russians (not "Russian" partisans), reduce this # by one.

[8]: Non-20L ATR may be received only vs. Russians/"Russian"-partisans. The Italian player may include only *one type* of ATR in his OB.

[9]: 1945 availability applies only to *Fascist* Italians. Allied Italians use the "44-45" line of the British Allotment Chart and receive British SW, treating them as non-Captured.

ITALIAN OBA AVAILABILITY CHART				
YEAR	40-7/41	8/41-4/42	5/42-11/43	12/43-5/45
DR: 2 BPV:	150+ 124 s	150+ 124 s	150+ 124 s	150+[1,2] 100
3	150+ 122	150+ 122	70+ 49	100+[2] 83 s
4	80+M 73 s*	70+ 49	150+ 122	70+[2] 49
5	70+ 49	100+ 81	80+M 73 s*	80+M[2] 73 s*
6	80+M 73 s*	80+M 73 s*	70+ 51 s	70+[2] 51 s
7	70+ 49	70+ 49	80+M 73 s*	80+M[2] 73 s*
8	70+ 49	80+M 73 s*	70+ 49	70+[2] 51 s
9	100+ 81	70+ 49	100+ 83 s	100+[2] 83 s
10	60+ 33	100+ 83 s	100+ 81	100+[2] 81
11	100+ 83 s	70+ 49	80+M 73 s*	80+M[2] 73 s*
12	70+ 49	70+ 49	70+ 49	70+[2] 51 s
MAX. BPV:	124	124	124	122

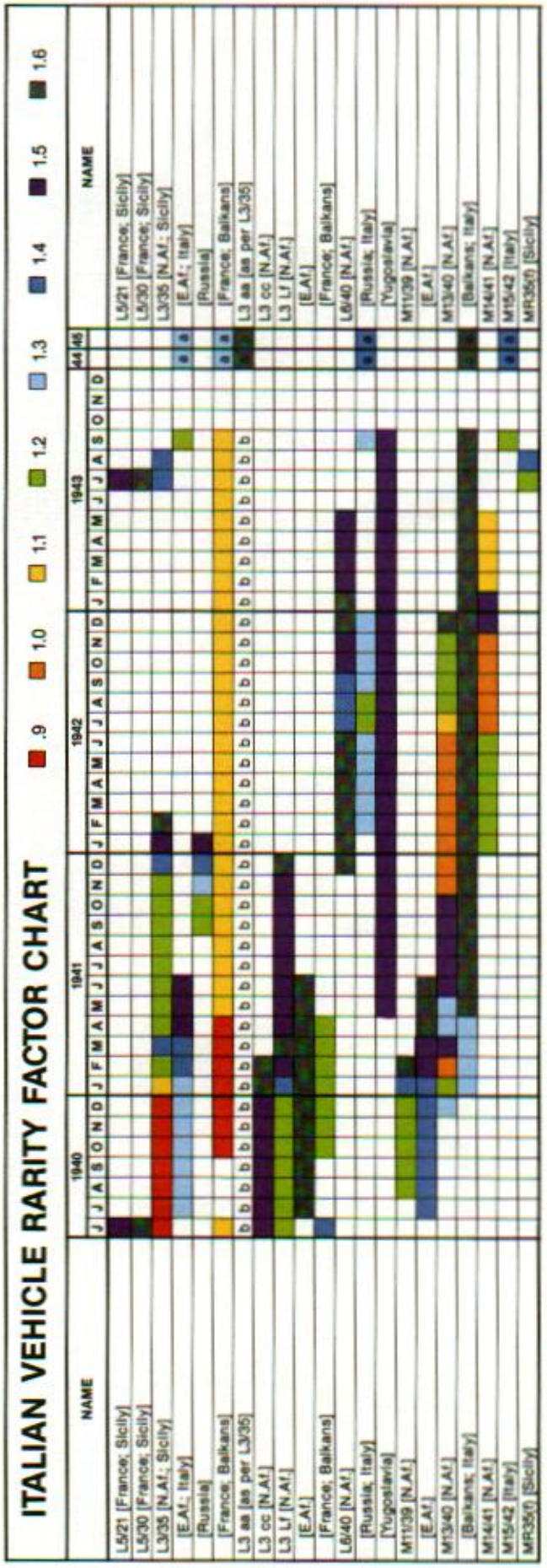
M: Battalion mortar OBA (C1.22).

s: Can fire Smoke.

*: Can fire IR (E1.93).

[1]: Availability for 12/43-44 applies only to *Fascist* Italians. Allied Italians in that period must roll again.

[2]: Availability in 1945 applies only to *Fascist* Italians. Allied Italians in 1945 use the "1945" column of the British Non-PTO Availability Chart, as well as British radios/field-phones (treating them as non-Captured) and OBA card/chit allocations.

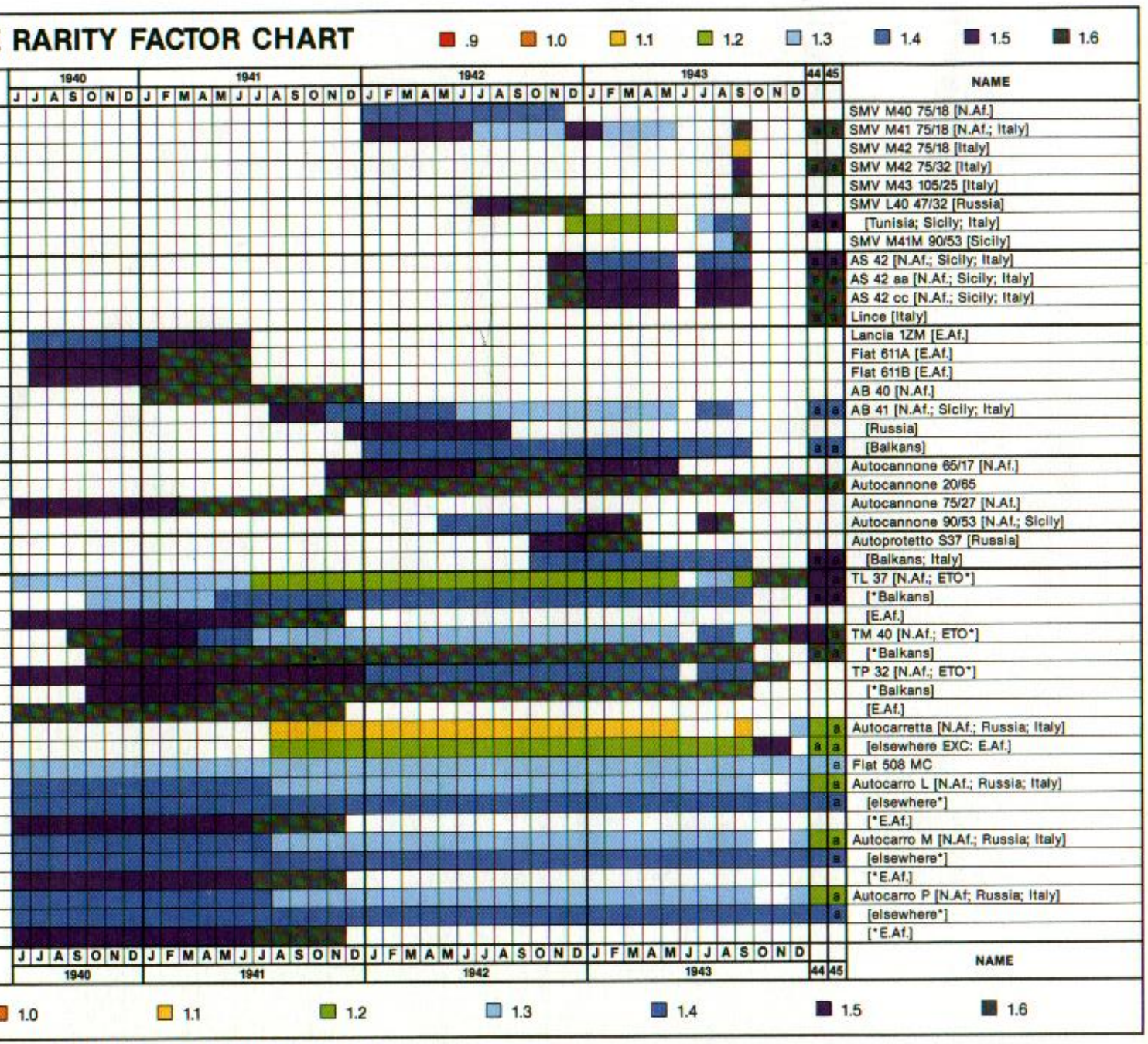


a: Fascist Italians only. Allied Italians use certain British vehicles; see intro to Italian Vehicle Notes.

b: 4 higher than corresponding (for date and area) L3/35 RF (1.6 max.).

Contd. on next page

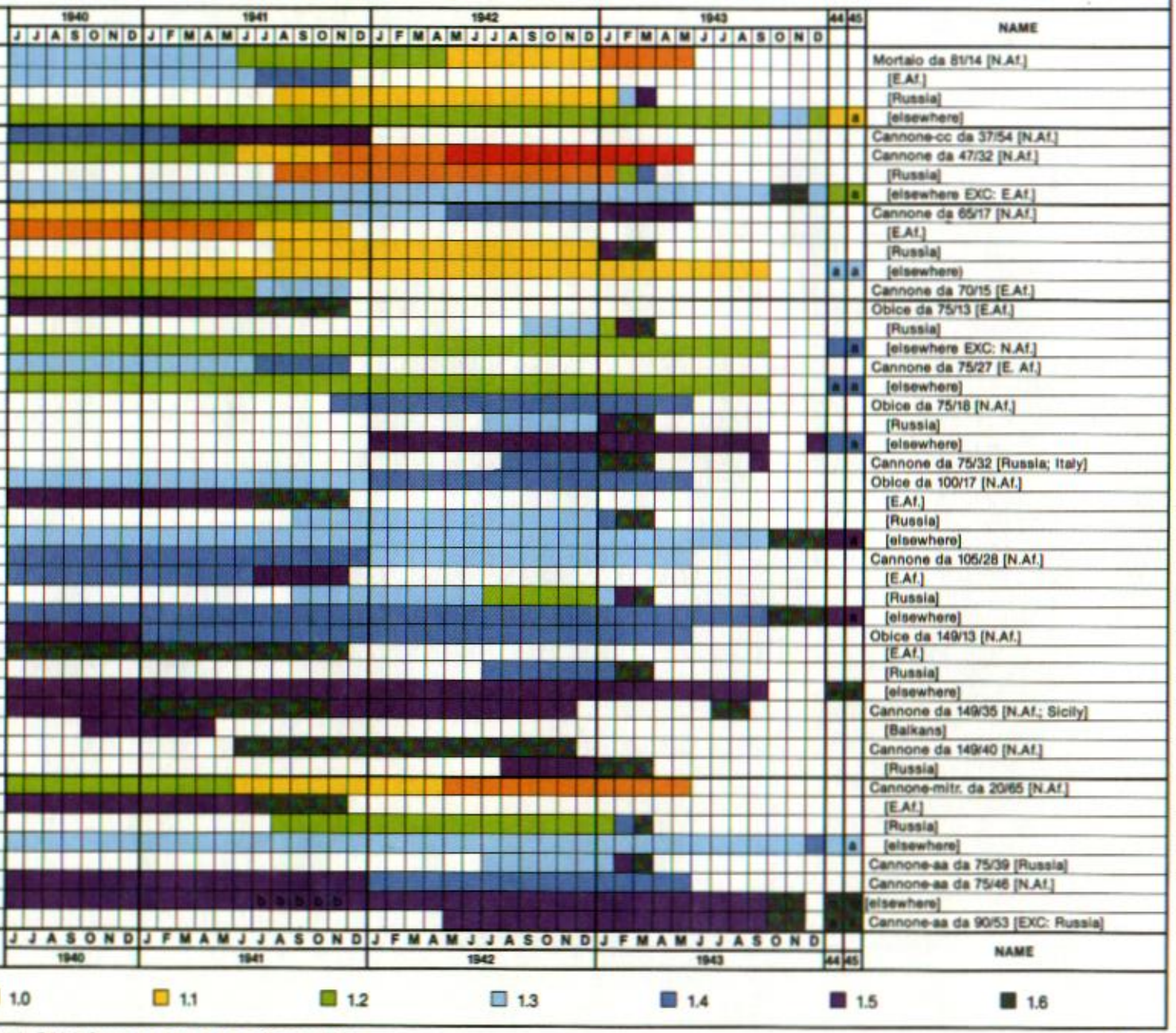
ITALIAN VEHICLE RARITY FACTOR CHART



a: Fascist Italians only. Allied Italians use certain British vehicles; see Intro to Italian Vehicle Notes.

ITALIAN ORDNANCE RARITY FACTOR CHART

.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6



a: Fascist Italians only. Allied Italians use certain British Guns; see intro to Italian Ordnance Notes.

b: 1.6 for E.Af.

JAPANESE VEHICLE NOTES

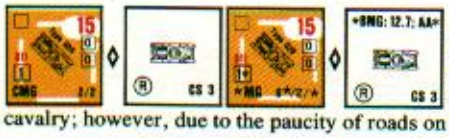
After WW1 the Imperial Japanese Army purchased a variety of French and British tanks for use and evaluation, and in 1925 initiated its own tank development program. By 1933 several domestic designs were in or nearing production, and the first four Japanese tank regiments were formed that same year. The layout and many of the components of these early Japanese tanks bore the influence of European (especially British) designs, but as they gained experience the Japanese evolved their own distinctive style of AFV. Generally, Japanese tanks were characterized by their small size, light weight, good cross-country speed, and small-caliber armament with relatively poor anti-tank capability. Size and weight were kept down by both a low priority on materials and the consideration that all AFV going abroad would have to be transported on ships. Engines were of sufficient size and horsepower in most cases, and in 1933 the Japanese pioneered the use of air-cooled diesel powerplants in military vehicles. Suspensions were simple but effective. However, interiors were usually cramped and turret layouts were poor. Radios were the exception until late in the war. Crew survivability was reduced by (among other things) the extensive use of riveted/bolted armor plates, despite the Japanese having developed one of the finest methods in the world for welding armor.

Tactically, the use of tanks by the Japanese was unimaginative. With the Army dominated by its ultraconservative Infantry arm and lulled into complacency by the fighting in China (where its opponents had few effective AT weapons), tanks were simply attached to infantry units for fire support and the possibilities of armored *manoeuvre en masse* were left largely unexplored. The misleading 'lessons' of combat in China also blinded the Army to the gun-vs-armor race that occurred in the West after 1940, thus leaving Japanese tanks thinly armored and undergunned compared to the Allied tanks they encountered. (Indeed, by 1945 the Japanese often felt it necessary to dig in their tanks for use as mere armored pillboxes.) No tank divisions were formed until mid 1942, and none were used as complete formations in battle until 1944. The tank regiment (which was actually of battalion size, with 4-5 companies) remained the standard combat unit, and piecemeal assaults of platoon or company strength (often conducted in the form of nighttime *banzai* charges) were the norm for tank attacks.

The low priority given to AFV manufacture combined with subsequent U.S. bombing raids kept AFV production low throughout the war. Around 3,000 tanks were built from 1931 through 1940 and approximately another 3,500 (including SP guns) in 1941-45, with about half produced by Mitsubishi Heavy Industries. Peak output was achieved in 1941-42 when some 2,200-2,500 were built. Several types of bridging, engineer, command, etc. variants were developed but few were used in combat. About 1,700 AFV remained at the end of the war to be surrendered to the Allies. (And of the equipment seized by the Russians in Manchuria, most was passed on to the Chinese Communists.)

There were two main styles of nomenclature for Japanese ordnance equipment. An item accepted for service prior to 1926 had a model number corresponding to the year of the emperor's reign in which it was adopted; e.g., a gun's being designated a 'Year-38 Type' meant that it had been adopted in the 38th year of the then-current emperor's reign. From 1926 the model number was based on the year of adoption expressed in relation to 660 BC (the beginning of the first Japanese emperor's reign); thus the designation 'Type 97' indicated that the item had been adopted in the Japanese year 2597 (1937 according to the Western calendar), while 'Type 1' meant adoption in 2601 (1941). For vehicles, the type designation was usually completed with an abbreviation using two symbols from the *Katakana* phonetic alphabet; however, beyond 'KE' standing for 'Light' and 'CHI' for 'Medium', they were assigned with little rhyme or reason and most are not translatable into English.

[For the sake of brevity, the following abbreviations are used herein: IJA *Imperial Japanese Army;* IJN *Imperial Japanese Navy;* SNLF *Special Naval Landing Force. Also note that, as used herein, the name "China" includes Manchuria (Manchukuo), where Japanese and Russians fought each other in 7-8/38, 5-9/39 and 8/45.]*



1. *Types 92A & 92B Combat Cars:* In the late 1920s the Japanese studied the use of armored cars by the cavalry; however, due to the paucity of roads on the Asian mainland they decided to produce a full-tracked vehicle instead. This resulted in the Type 92 Combat Car, one of the earliest AFV of welded construction and probably the very first to use an air-cooled engine. Its standard BMG was a 13.2mm piece with special optics enabling it to engage low-flying aircraft; however, a regular tank LMG was often installed in its place, due perhaps to an insufficient supply of the larger-caliber weapon. During production the suspension of the Type 92 was altered, but its tendency to shed tracks was never fully rectified. Besides equipping the armored car company of certain cavalry brigades, the Type 92 served as a recon vehicle in some infantry divisions and was issued to a few tank units. It apparently saw action only in China. An amphibious version was built but never advanced beyond the prototype stage. The Type 92 was not produced in large numbers and apparently was withdrawn from service by 1941. Allied wartime intelligence erroneously called it the Type 93 (or M2593) Light Tank. "A" and "B" in the piece names are our own designations, since the Japanese nomenclature did not distinguish between the different versions. "Combat Car" is actually a loose translation of *Jusokosha*, which literally means "Heavy Armored Car". Alternatively, the Japanese sometimes referred to the Type 92 as a "Light Armored Vehicle" *(Keisokosha)*, their equivalent of the term "Tankette".

† For the *Type 92B* (only), whichever MG fires *first* in a phase is considered the MA for both that attack and the remainder of that phase (treating Defensive First and Final Fire as one phase). If both MG fire as a FG, before making that attack the owning player must declare one MG to be the MA for that phase; if he fails to do so, the MA is determined randomly. The *Type 92B* (only) does not suffer Disabled MA Recall (D3.7) until *both* of its MG are disabled.

† When the BMG of the *Type 92B* achieves an ordnance hit vs an AFV (A9.61), use the 12.7 column of the AP To Kill Table. This BMG also has AA capability within the Type 92B's VCA, even if HD, and without consideration of AA mode (E7.5; i.e., no AA counter is required). These abilities are signified by "BMG: 12.7; AA*" on the counter.

† RF for both versions is 1.3 in 1937, and increases by .1 in each year thereafter [EXC: use vs Russians in 1938 is NA].



2. *Type 94 Light Armored Vehicle:* This tankette resulted from a requirement for a very small armored vehicle with good cross-country ability, to be used for the resupply of frontline troops and garrisons in hostile areas. To this end it was designed to tow a fully-tracked trailer, and for self defense it had a turreted MG on the rear of the superstructure. Those produced from 1936 had a revised suspension; U.S. intelligence called this later version the Type 94 (or M2594), having incorrectly labelled the original model the Type 92 (or M2592). Beginning in 1935, selected infantry divisions received a company of 6 (later 10) Type 94. Since these divisions normally had no other AFV under direct command, their tankettes came to be used mostly for reconnaissance and infantry support. Eventually a number of infantry regiments also acquired their own tankette companies (probably when the division's tankette company was updated with Type 95 HA-GO light tanks). Tankettes were used as command/liaison vehicles as well. Type 94 were employed widely during the early part of the war, but most ended their days dug in as not particularly effective pillboxes. A tankette platoon normally comprised three such AFV.

† This Passenger capacity may not be used to carry ammunition or a dm 70-90mm MTR (C10.13).

† Dates and RF for use in China are 1937-39 (1.1), 1940 (1.2), 1941-42 (1.3), 1943 (1.4), 1944 (1.5) and 1945 (1.6) [EXC: vs Russians they are 1939 (1.4) and 8/45 (1.6)]. For use in Malaya-Burma-India they are 1941-5/42 (1.2), 6/42-43 (1.5), and 1944-5/45 (1.6). For use elsewhere they are 1941-1/42 (1.5), 2/42 (1.4), 3/42 (1.2), and 6/43-45 (1.5) [EXC: vs U.S. they are 1941-4/42 (1.2) and 6/43-7/45 (1.6)].



3. *Type 95 SO-KI Armored Railway Vehicle:* This unusual AFV, like the earlier Type 91 Armored Car (Japanese Vehicle Note 10), was developed by the Corps of Railroad Engineers as a rail-line patrol vehicle. However, unlike the Type 91, the SO-KI could change from rail to tracked mode while the crew remained aboard; its four steel flanged wheels were raised hydraulically into the vehicle's belly, so bringing the tracks to rest on the ground. Thus it was a much more practical design than the armored car, being able to launch an "off-rail" attack quickly when necessary. Like the Type 91, the SO-KI had front and rear couplers so it could be used to move small trains, and its wheels were adjustable to compensate for tracks of different gauges. The SO-KI looked like an

JAPANESE VEHICLE LISTING

	#	Name & *Type*	Ⓜ	WGT	BPV	RF	Dates	Size	AF	TA	OT	CS	MP	GP	GT	MA	ROS[5]	B#	IF	BMG	CMG	AAMG	s#	sD#	PP/T#	Notes
1	3	Type 92A *Tr*	•	3.5	22	1.3-1.6†	33-40	+1	0	+FSR		3	15	L	1MT	CMG	1	11†[1]		2	2					1†,A†[1]
	3	Type 92B *Tr*	•	3.5	27	1.3-1.6†	33-40	+1	0	+FSR		3	15	L	1MT	MG†	1†	11†[1]		6†	2	+				1†,A†[1]
	6	Type 94 *Tr*	•	3.5	23	1.1-1.6†	35-45†	+2	2/0	−F/+SR		2	15	L	1MT	CMG	1	11			2				2PP+	2†
2	2	Type 95 SO-KI *Tr*	•	9	21	1.4-1.6†	37-45†	+1	0			5	14		RST	CMG	1	11			2†					3†
	3	Type 97A TE-KE *Tr*	•	4.5	25	1.1-1.6†	38-45†	+2	3/0	−F/+SR		2	16	L	1MT	CMG	1				2					4†
	6	Type 97B TE-KE *Tr*	•	4.5	31	1.1-1.6†	38-45†	+2	3/0	−F/+SR		2	16	L	1MT	T37			•							4†
3	10	Type 95 HA-GO *LT*	•[12]	7.5	33	1.0-1.6†	37-45†	+1	1	+FSR		3	15	L	1MT	T37				2	–R2‡			5†+†[1]		5†,B†[1],C†[2]
	3	Type 2 KA-MI *aLT*		11.5	47	1.5-1.6†	44-7/45	+1	3/0	−F/+SR		5†	14[3]	L	ST	T37L	1				4					6†
		(without pontoons)		9.5	40	1.5-1.6†	44-7/45	+1	2/0	+SR		5†	15	L	ST	T37L	1			2	4					6†
4	3	Type 89A CHI-RO *MT*	•	12.5	34	1.2-1.6†	32-43	−1	1	+FSR		4	10	L	ST	T57*	1	11†[1]		2	–R2					7†,A†[1]
	6	Type 89B CHI-RO *MT*	•	13	36	1.1-1.6†	36-10/44†	−1	2/1	+SR		4	10	L	ST	T57*	1			2	–R2‡					7‡
10	6	Type 97A CHI-HA *MT*	•[12]	15	42	1.6-1.0†	39-45†	0	3/2	+FSR		4	14	L	ST	T57	1			2	–R2			5†+†[1]		8†,B†[1],C†[2]
	6	Type 97B CHI-HA *MT*		16	45	1.6-1.1†	5/42-45†	0	3/2	+F		4	14	L	ST	T47L	1			2	–R2			5		8†
5	2	Type 1 CHI-HE *MT*		17	48	1.6	4/44-45†	0	6/2	+SR		5	16	L	ST	T47L	1			2	–R2			5		9†
	6	Type 91 *AC*		7	24	1.3-1.6†	31-45	−1	1			6	14†[4]	H	RST	CMG	1	11†[1]		Opt2‡[2]	4	Opt2‡				10†,A†[1]
6		Type 92 *AC*		6	24	1.5-1.6†	32-45†	0	0			4	19[4]	H	RST	CMG	1	11†[1]		Opt2†	4					11†,A†[1]
3		Type 1 HO-NI I *SPA*		16	44	1.6†	4/44-6/45†	0	3/2/★T	+F	•	5	14	L	NT	B75	1	11					WP5			12†
2		Type 4 HO-RO *SPA*		16.5	53	1.6†	1-6/45	0	3/2/★T		•	5	13	L	NT	B150*		*11*	•				WP6			13†
3		Type 1 HO-KI *APC*		6.5	16	1.6†	10/44-6/45†	0	0		•	5	16	L											17PP/T7	14†
4		Type 98 SHI-KE *PC*		4	11	1.4-1.3†	34-45	+1	★			5	15	L											9PP/T9	15†
4		Type 92 I-KE *PC*		5	13	1.5	32-45	0	★			5	9	L											9PP/T-4	16
3		Type 95 *tr*		1.5	10	1.3	36-45	+2	★			2	27[1]	L†											8PP	17†
6		Type 94 *tr*		6	15	1.3	35-45	0	★			6	23[1]												21PP/T6	18
6		Type 97 *tr*		5	16	1.4	37-45	0	★			7	26[1]												29PP	18

enlarged Type 94 tankette but had no standard main armament; instead, its crew used their small arms and/or an infantry light machine gun through firing slits. (For simplicity the game piece is assumed to have the LMG mounted in the turret slit.) Most SO-KI were employed in China, but a few were used in Burma as well.

† The MA has a Normal Range of *eight* hexes, but may be Removed or Scrounged. These are signified by "Nml Rng 8" and "Rmvl/Scrng OK" on the counter.

† Dates and RF for use in China are 1937-43 (1.4) and 1944-45 (1.5) [EXC: use vs Russians in 1938-39 is NA]. For use in Burma they are 1944-5/45 (1.6). Availability is otherwise NA.



4. *Types 97A & 97B TE-KE Light Armored Vehicles:* Unlike in the West where the Spanish Civil War had shown the limited value of tankettes, their use against the poorly equipped Chinese proved successful. Combat experience led to progressive experiments with and improvements to the Type 94, and ultimately brought about its successor, the Type 97 TE-KE. The new design featured a medium-velocity 37mm gun, well-sloped armor and an air-cooled diesel engine, making it the most technically advanced tankette of its time. Since it was designed to function in the same roles as its predecessor it retained the ability to tow a trailer. Some Type 97 retained the MG of the Type 94 in lieu of the 37mm gun; these were intended primarily for the supply role, while the gun-armed versions were to be used for infantry fire support. Allied intelligence sometimes referred to the TE-KE as the M2597. "A" and "B" in the piece names are our own designations, since the Japanese nomenclature did not distinguish between the two models.

† For both versions, Dates and RF for use in China are 1938 (1.5), 1939 (1.3), 1940-43 (1.1), 1944 (1.2), and 1945 (1.3) [EXC: use vs Russians in 1938 is NA]. For use in Malaya-Burma-India they are 1941-5/42 (1.3), 6/42-3/44 (1.4), 4/44 (1.3), 5/44 (1.4), 6/44 (1.5), 7-10/44 (1.6), 11-12/44 (1.4), 1-2/45 (1.5), and 3-5/45 (1.6). For use elsewhere they are 1941-1/42 (1.5), 2/42 (1.4), 3/42 (1.2), 6/43-4/45 (1.5), and 5-8/45 (1.3) [EXC: vs U.S. they are 1941-4/42 (1.3), 6/43-3/45 (1.5), and 4-7/45 (1.6)].



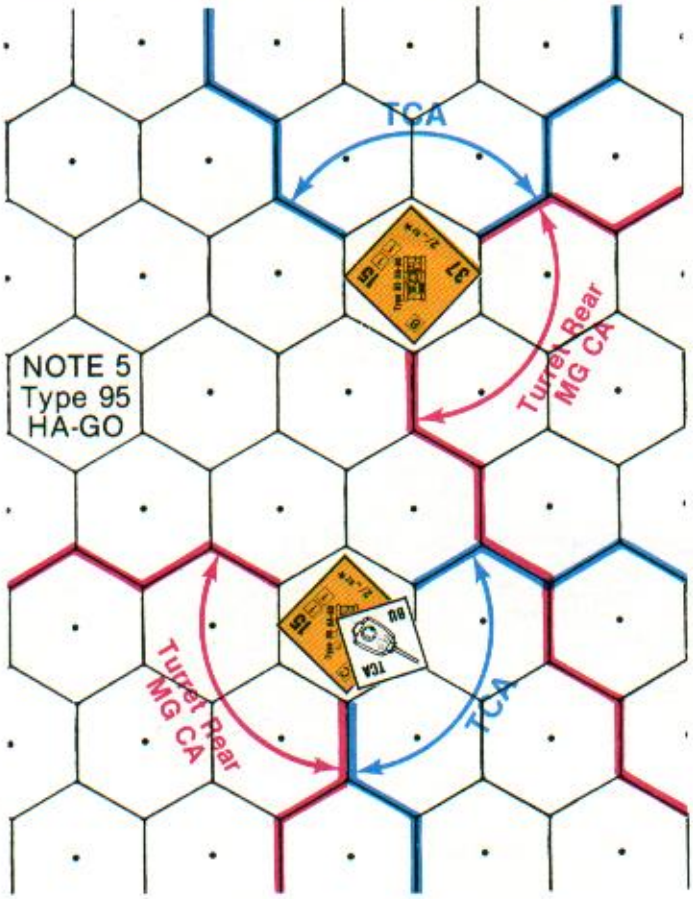
5. *Type 95 HA-GO Light Tank:* The inability of the lumbering Type 89 CHI-RO to function effectively with motorized units led to a call in 1933 for a lighter and faster gun-armed tank. The result was the Type 95 HA-GO, with a medium-velocity 37mm gun and the same air-cooled diesel engine used in the Type 89B but with an armor basis of only 12mm. Upon testing the prototype, the Infantry School called for heavier armor and armament while the Cavalry School found the design acceptable. Since the latter were expected to be its main user, their view prevailed and it was put into production without the infantry's suggested changes. Once in service the HA-GO quickly gained an excellent reputation due to its high standard of reliability. In fact, so great was its popularity that it was kept in production until 1943—far longer than its combat value warranted—while more up-to-date light tank designs languished on paper. The HA-GO first saw combat in 1937 with the Kwantung Army *(Kantogun)* in China. In due course it superseded the combat cars and tankettes in their various roles (most importantly in the divisional tank companies) and equipped several light tank regiments. By 1941 a company of light tanks had also been authorized in each medium tank regiment and a number of independent light tank companies had been created. In addition, the HA-GO was used by some SNLF units. A platoon *(shotai)* of light tanks comprised three such AFV, while a company *(chutai)* normally had ten. The Type 95's official designation was KE-GO, but the pre-production name HA-GO assigned to it by Mitsubishi was more commonly used. Its nickname was KYU-GO ("nine-five"). Allied intelligence sometimes referred to it as the M2595. Around 1,250 were built. The HA-GO, along with the CHI-HA medium, formed the mainstay of Japanese tank regiments *(sensha rentai)* during WW2.

The IJA built several other types of light tanks after the HA-GO, but apparently all were assigned to units that remained in Japan. A number of M3 Stuart tanks were captured in Burma in early 1942, and the Japanese 14th Tank Regiment was still using them in mid 1944, losing the last one on the Tiddim Road in June of that year. M3 Stuarts were also seized in the Philippines in 1942; see U.S. Vehicle Note 2.

† The center hexspine of the turret Rear (D1.82) MG's CA is always the second hexspine *clockwise* from the center hexspine of the current TCA; i.e., the Rear MG is located at the 4:00 position relative to the MA—as

signified by "4:00 from MA" on the counter. See the accompanying diagram.

† Dates and RF for use in China are 1937-38 (1.6), 1939 (1.4), 1940 (1.3), 1941 (1.2), 1942 (1.1), 1943 (1.2), 1-3/44 (1.3), 4-5/44 (1.2), 6-12/44 (1.3), 1-2/45 (1.4), 3-4/45 (1.2), and 5-8/45 (1.4) [EXC: vs Russians they are 1939 (1.1) and 8/45 (1.4)]. For use in Malaya-Burma-India they are 1941-5/42 (1.0), 6/42-2/44 (1.3), 3/44 (1.1), 4/44 (1.2), 5/44 (1.3), 6/44 (1.4), 7-10/44 (1.6), 11/44-2/45 (1.3), 3-4/45 (1.5), and 5/45 (1.6). For use elsewhere they are 1941-1/42 (1.4), 2/42 (1.3), 3/42 (1.1), 8-9/42 (1.5), and 6/43-45 (1.5) [EXC: vs U.S. they are 1941-4/42 (1.0), 8-10/42 (1.5), 6-10/43 (1.5), 11/43-6/44 (1.3), 7-9/44 (1.2), 10-12/44 (1.3), 1-2/45 (1.2), 3/45 (1.4), 4-5/45 (1.5), and 6-7/45 (1.6)].





6. *Type 2 KA-MI Amphibious Tank:* The IJA built three different types of amphibious tanks in the period 1933-41, but only as prototypes. In 1941 the IJN took over the development of such vehicles, and the next year produced the KA-MI—based loosely on the Type 95 HA-GO. The KA-MI featured two multi-compartment pontoons of steel plate, one fore and one aft, attached to the hull by clamps opened remotely from inside the tank. Propulsion and steering in water were provided by twin propellors and rudders. Another novelty for a Japanese tank was a MG mounted coaxially with the main gun. 180 were built, and were used by SNLF units. A few KA-MI saw action in the Japanese defense of the Philippines and various Pacific islands (e.g., Kwajalein and Saipan). Allied wartime intelligence sometimes referred to the KA-MI as the M2602.

† *PONTOONS:* The KA-MI is amphibious only while its pontoons are attached and functional. To detach them, the tank must be BU and Mobile, and must expend one MP in its MPh for no other purpose (but may expend it whether Stopped or not). Whenever the pontoons become detached, the tank counter is immediately (i.e., prior to further Defensive First Fire) flipped over to its non-amphibious side; its CA remain the same, but the extra MP gained may be used subsequently in that MPh if the tank is otherwise allowed to. Detached pontoons have no game effect and cannot be re-attached.

While the pontoons are attached, the following apply:

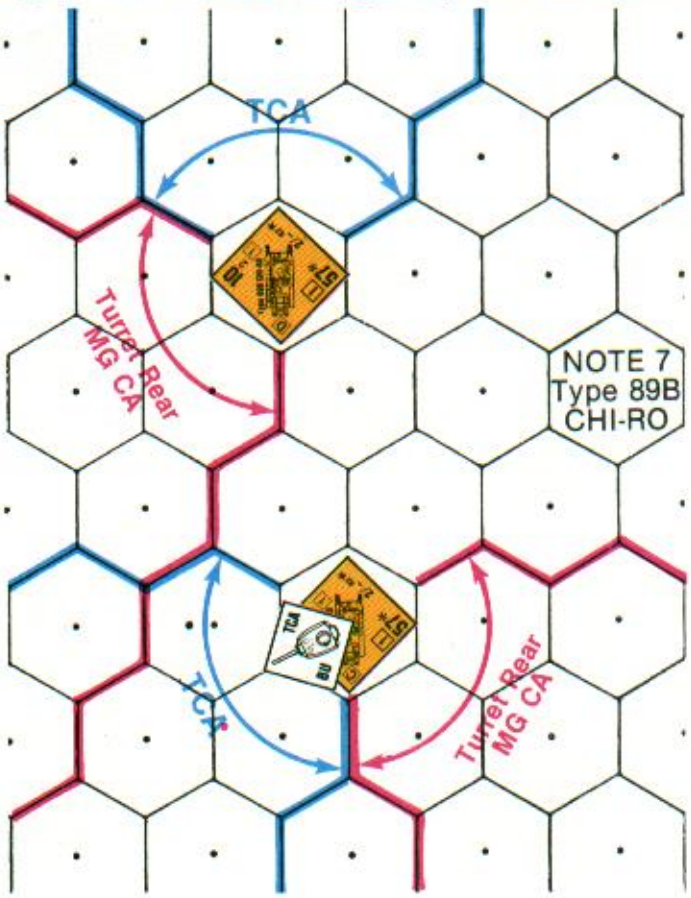
- If the KA-MI is BU it must expend one extra MP per hex entered, just as if towing a Gun.
- It may not use VBM, enter a building [EXC: hut] or cross over a wall.
- Unless utilizing a road/TB, it may not enter rubble, woods, jungle or bamboo.
- It may not push a wreck (D10.42).
- It may not assist in another vehicle's unbogging attempt (D8.3).
- Any ordnance attack vs it that misses by one renders its pontoons non-functional, provided it is not HD to that attack and the colored dr of that TH DR is ≥ the white dr. Any non-ordnance attack (including Small Arms, but excepting mines and MOL) vs its Location whose Original IFT DR, plus all applicable TEM and Hindrance/SMOKE DRM, is ≤ the number in the ★ Vehicle line of the IFT column used for that attack renders its pontoons non-functional, provided the KA-MI is not HD to the attack (or is HD to none of the firers, for a FG attack). Non-functional pontoons are not automatically detached; they remain attached until a MP is expended to detach them in the normal manner. CC does not affect the pontoons. If the KA-MI is in an unfordable Water Obstacle when its pontoons become non-functional, it sinks (D16.5).

† If a KA-MI becomes a wreck, use the wreck side of a Type 95 HA-GO.

† RF is 1.5 for 1-10/44 and 1.6 thereafter. Availability vs other than U.S. is NA.



7. *Types 89A & 89B CHI-RO Medium Tanks:* The Type 89, accepted for service in 1929 and built by Mitsubishi from 1931, was the first tank of Japanese design to be mass-produced. It was intended expressly for infantry support and first saw action during the 1932 "Shanghai Incident", being used there by a SNLF unit. During production a wide variety of changes were made, including a revised front hull, redesigned turret, and (in 1936) the installation of an air-cooled diesel engine. With the new engine it was called the Type 89 OTSU ("B"), and the earlier, gasoline-powered version was then



renamed the Type 89 KO (''A''). The 89B game piece represents the final model with all improvements. Allied wartime intelligence had several designations for the various models: M2589A, M2589B, Type 92, and Type 94 (M2594); however, the Japanese used none of these names. The Type 89 was employed mainly in China; however, the 7th Tank Regiment used them in the conquest of the Philippines and a small number reportedly participated in the overrunning of Malaya and Burma. Most Type 89 were withdrawn from service in/by 1943, but the 7th Independent Tank Company was still equipped with them in late 1944 when it fought against U.S. troops on Leyte. A platoon of Type 89 comprised three such AFV; a company, ten. **ERRATA:** The 57* AP Basic To Kill number is ''8''.

† For the *Type 89B* (only), the center hexspine of the turret Rear (D1.82) MG's CA is always the second hexspine *counterclockwise* from the center hexspine of the current TCA; i.e., the Rear MG is located at the 8:00 position relative to the MA—as signified by ''8:00 from MA'' on the counter. See the accompanying diagram.

† *Type 89A* Dates and RF for use in China [EXC: NA vs Russians] are 1937-38 (1.2), 1939-40 (1.4), 1941-42 (1.5), and 1943 (1.6); availability is otherwise NA. *Type 89B* Dates and RF for use in China are 1937 (1.4), 1938 (1.3), 1939-41 (1.2), 1942 (1.3), and 1943 (1.4) [EXC: vs Russians they are 1939 (1.1) only]. For use in Malaya-Burma they are 1941-5/42 (1.5). For use in the Philippines they are 1941-4/42 (1.2), 1943-9/44 (1.6), and 10/44 (1.4).



8. *Types 97A & 97B CHI-HA Medium Tanks:* By 1935 the latest European tanks and theories on armored warfare were proving the Type 89 CHI-RO obsolete, so the Japanese decided to produce a faster, more modern replacement. Two very different prototypes—the CHI-HA with a 12-cyl. air-cooled diesel engine, and the less-expensive but lighter and slower CHI-NI with a one-man turret—were built and tested; but when full-scale war broke out with China in 1937, the more sophisticated CHI-HA was immediately chosen. At that time the CHI-HA was probably the most technically advanced tank in production anywhere, in all respects save its gun. The Japanese belief that tanks were best used for infantry support had not yet been shattered, so no need was seen to give the CHI-HA a potent AT capability. However, with the possibility of future upgunning in mind, the designers made the diameter of its turret ring as large as possible. This proved to be a wise decision, for after the Japanese experiences against masses of Russian tanks at Nomonhan in 1939, the CHI-HA's turret was redesigned to carry an adapted version of the Type 1 47mm AT gun. The *Shinhoto* (''new turret'') CHI-HA or CHI-HA *Kai* (''Modified''), as this model was variously known, entered series production in 1942 but, aside from two prototypes used on Corregidor in April of that year, was not encountered by the Western Allies until 1944. Besides equipping many tank companies, the *Shinhoto* CHI-HA was used by platoon/company commanders in tank regiments that retained the 57mm-armed CHI-HA. In addition, numbers of the 57mm version were fitted with the new turret and gun when sent back to Japan for repairs. Over 1,500 CHI-HA were built inclusive of both types—the vast majority by Mitsubishi. Three CHI-HA normally comprised a platoon *(shotai)*, and ten a company *(chutai)*. However, in the latter part of the war some tank regiments *(sensha rentai)* reportedly contained platoons of four or even five CHI-HA in companies of up to seventeen tanks, and quite often the companies contained one or two additional HA-GO platoons. Allied wartime intelligence sometimes referred to the CHI-HA as the M2597 Medium; the *Shinhoto* CHI-HA was also called the Type 97 Improved by the Americans and the Type 97 Special by the British. ''A'' and ''B'' in the piece names are our own designations.

† *Type 97A* Dates and RF for use in China are 1939 (1.6), 1940 (1.5), 1941 (1.3), 1942-3/44 (1.2), 4-5/44 (1.0), 6-12/44 (1.1), 1-2/45 (1.2), 3-4/45 (1.1), and 5-8/45 (1.2) [EXC: vs Russians they are 1939 (1.5) and 8/45 (1.5)]. For use in Malaya-Burma-India they are 1941-5/42 (1.0), 3/44 (1.1), 4/44 (1.2), 5/44 (1.3), 6/44 (1.4), 7-10/44 (1.6), 11/44-2/45 (1.2), 3/45 (1.4), and 4/45 (1.5). Vs U.S. they are 1941-4/42 (1.3), 10/42 (1.3), 6/44 (1.2), 7-8/44 (1.3), 1-2/45 (1.3), 3-4/45 (1.5), and 5-6/45 (1.6)].

Type 97B Dates and RF for use in China are 1943-3/44 (1.5), 4-5/44 (1.4), 6/44-2/45 (1.5), 3-4/45 (1.4), and 5-8/45 (1.5). For use in India-Burma they are 4/44 (1.5), 6-10/44 (1.6), 11/44-2/45 (1.5), and 3-4/45 (1.6). Vs U.S. they are 5/42 (1.4), 6/44 (1.4), 7/44 (1.5), 1-2/45 (1.1), 3-4/45 (1.3), 5/45 (1.4), and 6/45 (1.5).



9. *Type-1 CHI-HE Medium Tank:* At Nomonhan in 1939, Russian 45mm tank and AT guns easily penetrated Japanese tanks. Afterwards the Japanese decided that the Type 97 Medium had to be uparmored as well as upgunned. This eventually resulted in the Type 1 CHI-HE, which also featured a new air-cooled diesel engine of greatly increased horsepower. 587 CHI-HE were built, all by Mitsubishi. The vast majority were issued to units stationed in Japan. However, a few, used as command tanks, are claimed to have been with the 2nd Tank Division on Luzon (though none were mentioned in subsequent U.S. evaluations of captured Japanese materiel). Since that division had been transferred there from Manchuria, it is possible that other CHI-HE saw action in China, and against the Russians in August of 1945.

In 1944-45 Mitsubishi also built sixty Type 3 CHI-NU Medium Tanks, which consisted of the CHI-HE with a much larger turret carrying a modified Type 90 75mm field gun. An attempt was made to send some to Okinawa but no shipping could be made available, so the CHI-NU ended the war in tank regiments stationed in Japan.

† Dates for use in China are 4-5/44 and 3-4/45 [EXC: vs Russians they are 8/45 only]. Vs U.S. on Luzon they are 1-6/45.



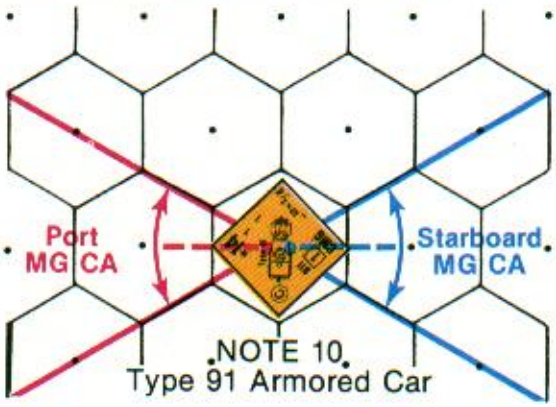
10. *Type 91 Armored Car:* This vehicle was based on a Sumida 6x4 truck, and hence is often called the Sumida Armored Car. It was actually a gasoline-powered ''armored railway tractor'' developed by the Corps of Railroad Engineers and used mainly for pulling small supply trains and patrolling the all-important rail lines in China. To increase its usefulness, the distance between the wheels on each axle could be altered so it could run on tracks of various gauges. In addition it was provided with four built-in jacks by means of which the crew could raise the vehicle high enough to place solid rubber tires over the hubs of its six railroad-type wheels, thus enabling it to leave the tracks and move cross-country. This operation was said to take ten minutes. Considering the Sumida's low power-to-weight ratio and very narrow tires, its ''off-rail'' mobility was probably quite poor except on very hard ground. One source states that over 1,000 were built (inclusive of all variants), beginning in 1933, for use by the IJA and the Manchurian Railways. Though not intended for frontline use, the Type 91 was employed in an offensive role on several occasions; however, it apparently saw little if any combat outside the Chinese mainland. Western sources usually refer to the Type 91 as the Type (or Model) 2593. When equipped with all optional MG, the game piece also represents several other armored cars such as the *Hokoku* ICHI-GO and Type 92 Naval (*Hokoku* SAN-GO) vehicles. These were similar to the Type 91 in game terms and theaters of operation, but were not designed for use on rails.

† The Type 91 has one hull-mounted two-FP MG on its starboard *side* and another on its port *side*—as indicated by ''S2×2''. Each has a Normal Range of eight hexes, but can fire only at a target that lies within the Type 91's respective side Target Facing. See the accompanying diagram. No CA-change DRM apply to such fire [EXC: VCA-change DRM].

† Reverse Movement costs this vehicle three times its normal hex entry cost—as signified by ''REV×3'' on the counter.

† The optional BMG has a RF of 1.5. That of the optional AAMG is 1.4.

† Dates and RF for use in China are 1937-38 (1.3), 1939-42 (1.4), 1943-44 (1.5), and 1945 (1.6) [EXC: use vs Russians in 1938-39 is NA].





Vehicle Note C



11. *Type 92 Armored Car:* This vehicle, not to be confused with the Type 92 Naval Armored Car mentioned in the previous Note, was used by the IJA. In the West it is usually referred to as the Osaka Armored Car. It apparently saw action only in very small numbers, and was probably little used outside China. (U.S. wartime intelligence does indicate that at least one was encountered by the Allies in Burma.) With the optional BMG the Type 92 also represents the Army's Aikoku Armored Car, which had on- and off-rail capabilities like the Type 91 Sumida AC.

Given the very primitive road net in most of eastern Asia and the generally mountainous terrain of China, armored cars were not held in much favor by the Japanese. They employed a half-dozen or so different types (including some imported from the British) but generally they relegated their armored cars to combat in urban areas. Aside from the Type 91 Sumida it seems that most were built in such small numbers they could hardly even be called production vehicles. For this reason, each of the Japanese armored car types in the game is somewhat genericized to represent several vehicles with characteristics similar to the one actually named.

† Reverse Movement costs this vehicle four times its normal hex entry cost—as signified by "REV×4" on the counter.

† The optional BMG has a RF of 1.5.

† Dates and RF for use in China are 1937-38 (1.5) and 1939-45 (1.6) [EXC: use vs Russians in 1938-39 is NA]. For use elsewhere they are 1941-5/45 (1.6).



12. *Type 1 Gun Tank HO-NI I:* This vehicle consisted of a CHI-HA chassis carrying a modified Type 90 75mm field gun. It was used in China (apparently by the 3rd Tank Division), and also saw combat with the 2nd Tank Division on Luzon. The HO-NI I could be employed as a self-propelled artillery piece (those on Luzon were part of the 2nd Mechanized Artillery Regiment), or as a combination tank destroyer and light assault gun (in which case a company of ten was included in a tank regiment). It is claimed that 124 were built, all by Hitachi. U.S. wartime intelligence referred to the HO-NI I as the Type 2 75mm SP Gun.

† Dates for use in China are 4-5/44 and 3-4/45. For use vs U.S. on Luzon they are 1-6/45. Availability is otherwise NA.



13. *Type 4 HO-RO Self-Propelled Howitzer:* This was a token attempt by the IJA to provide some form of mechanized heavy artillery. The HO-RO utilized the CHI-HA chassis, and was similar in appearance to the HO-NI I aside from mounting an obsolete Type 38 150mm howitzer (which was a licensed copy of a turn-of-the-century Krupp gun). A few HO-RO were encountered in 1945 by U.S. troops on Luzon. Some postwar sources have erroneously called this vehicle the Type 38 or Model 98.

† Availability is NA except vs U.S. on Luzon.



14. *Type 1 HO-KI Armored Troop-Vehicle:* The HO-KI was developed in 1941 to provide a vehicle that would enable infantry to accompany tanks in combat. It could also be used as an artillery prime mover. It was apparently first issued overseas at the beginning of 1944 when some were allotted to the 2nd Tank Division in Manchuria. A few months later that division was transferred to the Philippines, where afterwards some HO-KI were encountered by U.S. troops. Whether it was used there as an APC or prime mover remains unclear.

† Availability is NA except vs U.S. in the Philippines.



15. *Type 98 SHI-KE 4-ton Tractor:* This unarmored, full-tracked prime mover had an air-cooled gasoline engine, and was used primarily for towing the Machine-Moved version of the Type 90 75mm Field Gun. It was developed in 1938 to replace the Type 94 4-ton YO-KE. The latter, which appeared in 1934, was quite similar to the SHI-KE aside from a different suspension. The two are equivalent in game terms, and this piece represents both.

† RF is 1.4 prior to 1945 and 1.3 in 1945.



16. *Type 92 I-KE 5-ton Tractor:* The Japanese produced a variety of unarmored, full-tracked prime movers for their medium and heavy artillery. The Type 92 I-KE, developed in 1932, had a water-cooled gasoline engine and was used for towing the 105mm field gun. About 1938 a new version with an air-cooled diesel engine entered production. This was designated the Type 92B and the original model was renamed the Type 92A. The game piece also represents two other prime movers whose characteristics are similar to those of the I-KE: the Type 92 NI-KU 8-ton tractor, which appeared in A and B versions like the I-KE but was used for towing the 150mm howitzer; and the 6-ton Type 98 RO-KE, which towed the 105mm howitzer, 105mm gun or 150mm howitzer.



17. *Type 95 Small Personnel-Vehicle:* This 4×4 car was the Japanese equivalent of the Jeep, and in fact predated the latter by about five years. It was also known as the "Black Medal", and had an air-cooled V2 gasoline engine. About 4,800 (inclusive of several variants) were built by Kurogane between 1935 and 1940 when production ceased due to changing military priorities. After the war some were used by the French in Indo-China.

† The Type 95 has Low Ground Pressure (D1.51). Moreover, when it is bogged, one (only) CX squad (even a Prisoner—but not a Guard) on foot expending ≥ four MF in the vehicle's Location (and declared to be assisting its unbogging) thereby allows the owning player to subtract two (one per crew or HS) from the colored dr of its immediately subsequent Unbogging DR.



18. *Type 94 & Type 97 Trucks:* In 1925-27 Ford, Chrysler and GM set up manufacturing plants in Japan, and rapidly came to dominate that nation's domestic and military automotive scene. In fact, the IJA was forced to use quantities of American cars and trucks in its invasion of Manchuria in 1931. As the 1930s progressed, the Japanese government began the establishment of a strong domestic motor industry while at the same time passing a series of ever more restrictive laws regarding the production of foreign vehicles. As a result, by 1939 the U.S. manufacturers were forced out altogether and their facilities were taken over by the rapidly growing Japanese companies.

In 1931 the IJA purchased several British and Czech 6×4 trucks which it turned over to domestic firms with the order to study the basic designs and develop their own version. This led to the Isuzu Type 94, which became the most widely used tactical truck of the IJA. It was produced in two main versions: the 94A with a gasoline engine and the diesel-powered 94B. Both are equivalent in game terms. One variant of the Type 94 was used as an artillery prime mover.

The Type 97, also known as the Nissan 80, was a 4×2 truck patterned after an American design. The game piece also represents its successor and militarized version, the Nissan 180, which continued in production after the war.

Japanese infantry only occasionally rode to war. The IJA never had a plentiful supply of trucks, and most of those it possessed were assigned to independent transport regiments which were generally reserved for logistics work.

JAPANESE MULTI-APPLICABLE VEHICLE NOTES

A. The MA *and all MG* have B11. This is signified by "B11" in *red* on the counter (**bold** in the Vehicle Listing).

B. sD becomes available in 1941 or 1944—as signified by the superscript "1+" or "4+" respectively.

C. This tank has no radio in scenarios set prior to 1945 (see D14). As of 1945 it is radio-equipped.

JAPANESE ORDNANCE NOTES

[For the sake of brevity, the following abbreviations are used herein: IJA Imperial Japanese Army; IJN Imperial Japanese Navy; IMB Independent Mixed Brigade; IMR Independent Mixed Regiment; SNLF Special Naval Landing Force. Also note that, as used herein, the name "China" includes Manchuria (Manchukuo), where Japanese and Russians fought each other in 7-8/38, 5-9/39 and 8/45.]



1. *Type 89 Heavy Grenade Launcher:* The Type 89 "knee mortar" was developed to provide the infantry with an indirect-fire capability at ranges out to 600m (the minimum range of the Year-11 Type 70mm mortar). Adopted in 1929, it replaced the older and much shorter-ranged Year-10 Type light grenade launcher. The Type 89 was unusual in having a rifled barrel and being trigger-fired, and unique in that range alteration was accomplished by turning a knob to move the firing pin up or down inside the barrel. Its projectiles included standard infantry HE and WP grenades (to which a finned propellant container would first be attached), and unfinned smoke and HE shells. Since a soldier could carry the dismantled mortar strapped to his leg, the Japanese sometimes referred to it as the "leg mortar". However, a translation of this term as "knee mortar" led some Allied troops to believe it was meant to be fired with its curved baseplate resting on one's thigh—a notion that led to a number of shattered femurs. Initially, two Type 89 mortars were authorized per rifle platoon; about 1940 this allotment was increased to three (or in some cases four). One was also authorized in the infantry battalion headquarters. The Type 89 was used by both IJA and SNLF troops.

† The following special rules apply to the use of HE/SMOKE:

- When firing HE at a range of ≤ two hexes, the ROF is lowered to "1" for that shot and Air Bursts are NA.
- WP can be fired only at a range of 1-5 hexes, reduces the ROF to "1" for that shot, *is considered Dispersed even when fired in the PFPh*, and Air Bursts are NA.
- Smoke can be fired only at a range of 3-10 hexes.



2. *Year-11 Type Curved-Fire Infantry Gun:* This mortar dated from 1922. It comprised a large, metal-reinforced wooden baseplate to which were attached the barrel, traversing gear and elevating screw. Unlike most medium mortars it had no bipod, its barrel was rifled and it fired unfinned projectiles. To facilitate rapid movement it could

JAPANESE ORDNANCE LISTING

#	Name	Type	CSize	ROF (IFE)	B#	Range	M#	TSize	Dates	Special	BPV	RF	Notes
10	Type 89 Heavy Grenade-Launcher	MTR	50*	2†		1-16†	—	—	30-45	4PP, s7†, WP6†, IR	—	—	1†
2	Year-11 Type Curved-Fire Infantry Gun	MTR	70*	2		15-39	12	+1	22-45†	NT, QSU, WP5, 5PP dm†[1]	22	1.0-1.6†	2†,A,B†[1]
4	Type 97 Curved-Fire Infantry Gun	MTR	81*	3		3-75	11	+1	38-45	NT, QSU, WP5	32	1.6-1.1†	3†,A
4	Type 97 Light Close-Attack Gun	MTR	90*	3		14-95	10	+1	35-45†	NT, QSU, WP5, 5PP dm†[1]	28	1.5-1.2†	4†,A,B†[1]
2	Type 97 Medium Close-Attack Gun	MTR	150*	1		16-106	8	0	34-45†	NT, Towing NA†[1]	21	1.6-1.4†	5†,A,C†[1]
3	Type 97 Automatic Gun	ATR	20L	1	12†	12	—	—	38-45	5PP, crew†	17	1.1-1.4†	6†,A
4	Type 94 Rapid-Fire Gun	AT	37L	3		167	12	+1	35-45†	NT, QSU, h-d	31	1.3-1.0†	7†,A
4	Type 1 Machine-Moved Gun	AT	47L	3		191	11	+1	43-45†	NT, QSU	34	1.6-1.1†	8†
3	Year-11 Type Flat-Trajectory Infantry Gun	INF	37*	3		125	—	—	22-45†	5PP (3PP dm), crewed†	30	1.0-1.6†	9†,A
4	Type 92 Infantry Gun	INF	70*	1		(3)†-70	12	+1	33-45	NT, QSU, AP5, WP5, H6[5], h-d	33	1.0-1.3†	10†,A
4	Year-41 Type Mountain Gun	INF	75*	1		158	10	+1	09-45	NT, QSU, WP7, H6[4]*†, h-d	34	1.3-1.1†	11†,A
4	Year-38 Type Field Gun (Improved)	ART	75*	1		265	9	0	16-45	NT,QSU,WP6,h-d,"12" AP TK#†	33	1.2†	12†
4	Type 90 Field Gun	ART	75	1	11	350	9	0	30-45†	NT, QSU, WP6	36	1.3-1.6†	13†
2	Type 91 10cm Field Howitzer	ART	105	1		270	8	0	31-45	NT	39	1.4†	14†
2	Type 92 10cm Cannon	ART	105L	1	11	455	5	−1	32-45	NT, AP5, WP5	32	1.6†	15†
2	Year-38 Type 12cm Howitzer	ART	120*		11	141	8	0	07-45	NT, AP5, h-d	34	1.5-1.6†	16†
2	Year-3 Type 14cm Naval Seacoast Gun	ART	140L			425	−†	−1	7/43-7/45	T, NM†	64	1.6-1.4†[1]	17†[1],D†,E
2	Year-4 Type 15cm Howitzer	ART	150*		11	245	5	−1	16-45	NT, AP5, WP5, Towing risk†	42	1.5†	18†
2	Type 96 15cm Howitzer	ART	150			297	4	−1	36-7/45	NT, AP5, WP5	45	1.6-1.3†	19†,E
3	Type 93 Twin-Mount High-Angle Machine Gun	AA	12.7	3 (12)		†	7	+1	34-45	T, 2 TK DR†, Towing NA†[1]	34	1.4-1.1†	20†,A,C†[1],E
4	Type 98 High-Angle Machine Cannon	AA	20L	3 (4)		158	11	+1	39-45	T, LF, [NT, 20†, 2 ROF]	31	1.6-1.2†	21†,A
4	Type 96 Naval High-Angle Machine Cannon	AA	25LL	3 (6)		169	−†	+1	44-45†[1]	T, NM†	29	1.6-1.1†[1]	22†[1],D†,E
4	Type 96 Twin-Mount Naval High-Angle Machine Cannon	AA	25LL	3 (12)		169	−†	+1	44-45†[1]	T, NM†, 2 TK DR†[1]	37	1.5-1.0†[1]	22†[1],D†,E
2	Type 96 Triple-Mount Naval High-Angle Machine Cannon	AA	25LL	3 (16)		169	−†	+1	44-45†[1]	T, NM†, 3 TK DR†[1]	43	1.6-1.1†[1]	22†[1],D†,E
4	Type 88 7.5cm Mobile Field High-Angle Gun	AA	75	2		345	6	−1	28-45	T	41	1.4-1.1†	23†,E
2	Year-10 Type 12cm Naval High-Angle Gun	AA	120L	1		388	−†	−1	7/43-7/45†[1]	T, NM†	63	1.6-1.2†[1]	24†[1],D†,E



be carried on two poles which fit under hooks on the sides of the baseplate. Two 70mm mortars were authorized in the infantry-gun company of infantry battalions; however, in the 1930s they were gradually replaced by Type 92 70mm infantry guns. By 1942 few 70mm mortars remained in frontline service.

† Dates and RF for use in China are 1937-41 (1.3), 1942-43 (1.4), and 1944-45 (1.5) [EXC: vs Russians they are 1938 (1.0), 1939 (1.5), and 8/45 (1.6)]. For use elsewhere they are 1941-42 (1.5) and 1943-45 (1.6).



3. *Type 97 Curved-Fire Infantry Gun:* This was a licensed copy of the famed Stokes-Brandt mortar, and as such was almost identical to the U.S. 81mm mortar; in fact, the light HE rounds of either weapon could be fired from the other. The Type 97 was generally used in non-divisional mortar battalions and independent mortar companies, though at times it could also be found in the infantry-gun company of the infantry battalion (in lieu of 70mm infantry guns). Toward the end of the war, some IMB contained an 81mm mortar platoon in each of its independent infantry battalions and/or one or two companies of 81s as brigade artillery. An 81mm mortar platoon contained four mortars, and a company comprised 2-3 such platoons.

† RF is 1.6 for 1938, 1.5 for 1939, 1.4 for 1940, 1.3 for 1941-43, 1.2 for 1944, and 1.1 for 1945. Use vs Russians is NA in 1938-39.



4. *Type 97 Light Close-Attack Gun:* During the Manchurian Incident of 1931 the IJA found their 70mm mortars outclassed by the French-built 81mm mortars used by the Chinese. Noting that many nations were adopting this French weapon, the Japanese secretly developed a more powerful, longer-ranged mortar. This was the Type 94 90mm Light Close-Attack Gun which was adopted in 1934. However, due to having two heavy recoil cylinders which greatly increased its weight, this model was only a partial success. The recoil cylinders turned out to be unnecessary anyway, so in 1937 the IJA adopted the Type 97 which was nearly identical to the Type 94 aside from the absence of the recoil cylinders. As the Type 97 supplanted the Type 94 the latter was relegated to largely static roles. 90mm mortars were employed in the same ways as 81s but were more often found in non-divisional mortar units. Both 90mm types were normally carried in special wagons or on pack animals.

† Dates and RF for use in China are 1937-39 (1.4) and 1940-45 (1.3) [EXC: use is NA vs Russians in 1938-39]. For use elsewhere they are 1941-42 (1.5), 1943 (1.4), 1944 (1.3), and 1945 (1.2).



5. *Type 97 Medium Close-Attack Gun:* This was the largest-caliber Japanese mortar of conventional design. It was used mainly in non-divisional medium mortar battalions. By 1945 some IMB included one or two companies of 150mm mortars as all or part of their "heavy artillery". 150mm mortars were sometimes used as coast defense weapons as well. A platoon comprised two pieces; a company, four.

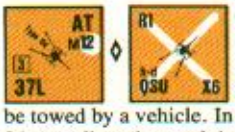
† Dates and RF for use in China are 1937-39 (1.5) and 1940-45 (1.4) [EXC: use is NA vs Russians in 1938-39]. For use elsewhere they are 1941-43 (1.6), 1-8/44 (1.5), and 9/44-45 (1.4).



6. *Type 97 Automatic Gun:* This ATR was developed in 1937 to provide the infantry with a light-weight AT weapon. As originally designed it fired only full automatic, but later many were modified to fire semi-automatic also/only. It weighed 150 lbs. including its carrying poles and small gunshield, and was normally carried by four men using two handlebar-shaped poles. The Type 97 was apparently not built in large numbers for it was encountered infrequently by the Allies. Occasionally it was used for beach defense. When available it was issued to the infantry battalion's MG company or infantry-gun company, or to the regimental AT company. In many IMB, a platoon of two was authorized per rifle company.

† This ATR requires a friendly crew in order to be fired with no B# penalty; G1.611. Its BPV includes a crew as per H1.3.

† RF is 1.4 for 1938-39 [EXC: 1.1 vs Russians in 1938], 1.3 for 1940-43, and 1.4 for 1944-45.



7. *Type 94 Rapid-Fire Gun:* This gun was used for infantry support and AT defense. It was small and light, and could be dismantled for man- or animal-pack transport, but was not designed to be towed by a vehicle. In most infantry divisions, a company of 4-6 Type 94 was allotted to each infantry regiment, and another platoon was sometimes present in the divisional recon unit. In IMB and IMR, the infantry-gun company authorized in each independent infantry battalion sometimes contained a platoon of Type 94. There were also a number of independent rapid-fire gun companies (with eight guns) and battalions (with twelve guns) equipped with the Type 94. Two guns formed a platoon.

Following the crushing defeat inflicted on them by Russian tanks at Nomonhan, the Japanese purchased a number of PaK 35/36 37mm AT guns from Germany; after making minor modifications they designated them Type 1 Rapid Fire Guns, but it seems that few if any of these weapons actually saw combat.

† Dates and RF for use in China are 1937-45 (1.2) [EXC: vs Russians they are 1938 (1.3), 1939 (1.0), and 8/45 (1.1)]. For use elsewhere they are 1941-45 (1.0).



8. *Type 1 Machine-Moved Gun:* The Type 1, developed in 1941, was the first Japanese gun designed specifically for the AT role. It incorporated features of both the German 37mm and Russian 45mm AT pieces, including pneumatic tires which enabled it to be towed by vehicles (hence its "Machine-Moved" designation). It entered production in 1942, by which time it was already becoming obsolete against the heavier Allied tanks. The Type 1 was authorized in the same ways as the Type 94 Rapid-Fire Gun except that few were issued to regimental AT companies, IMR or IMB. In addition, each armored division was authorized both an AT battalion equipped with eighteen Type 1 and a mobile infantry regiment in which each rifle company had a platoon of two such guns.

† Dates and RF for use in China are 1943-3/44 (1.6), 4-5/44 (1.5), 6/44-2/45 (1.6), 3-4/45 (1.5), and 5-8/45 (1.6) [EXC: 1.3 vs Russians in 8/45]. For use elsewhere they are 4/44-45 (1.3) [EXC: vs U.S. they are 7/43-5/44 (1.3), 6-12/44 (1.2) and 1-7/45 (1.1)].



9. *Year-11 Type Flat-Trajectory Infantry Gun:* This diminutive gun was a copy of the French 37mm mle 1916. After WW1 the Japanese modified it to increase its portability and rate of fire, and adopted it in 1922. In service it complemented the Year-11 Type 70mm mortar by providing direct-fire support for the infantry battalion, each of which was authorized two Year-11 Type 37mm guns in its infantry-gun company. It could be dismantled for man- or animal-packing, or could be carried fully assembled by four men using special poles which attached to its tripod. The Type 92 70mm infantry gun and Type 94 rapid-fire gun gradually relegated it to second-line and garrison use, but it remained in production until at least 1937.

† As signified by "crew" on the counter, this weapon requires a friendly crew in order to be used without the applicable penalties of A21.11-.13. Its BPV includes a crew as per H1.3.

This weapon may enter and be fired from all terrain types allowed to a HMG (e.g., an upper building level). As a SW it incurs no CA-change DRM penalty (C9.2), but is subject to the woods/building CA restrictions of A9.21. It has no Gunshield, and it portage cost while dm is 3 PP.

† Dates and RF for use in China are 1937-41 (1.3), 1942-43 (1.4), and 1944-45 (1.5) [EXC: vs Russians they are 1938 (1.0), 1939 (1.5), and 8/45 (1.6)]. For use elsewhere they are 1941-42 (1.5) and 1943-45 (1.6).



10. *Type 92 Infantry Gun:* Commonly referred to as the "battalion gun" *(daitaiho)*, the Type 92 was developed to replace the Year-11 Type 70mm mortar and Year-11 Type flat-trajectory infantry gun with a single weapon capable of both direct and indirect fire. Though much heavier than the other two guns, it was still extremely light for its caliber and could be rapidly manhandled from one position to another. In addition, it could be disassembled and animal-packed, or even man-packed if necessary. Its short range was not seen as a detriment, for it was to be used right up with the forward troops. Allied intelligence spoke of its unreliability and unpopularity, but its users do not seem to have shared these opinions. Each infantry battalion was authorized a platoon of two

Type 92 in its infantry-gun company; sometimes two platoons were allotted, especially in independent infantry battalions. As originally organized, a SNLF generally had one or two Type 92 platoons; however, by 1943 they were often replaced by coast-defense/AA artillery. After WW2 the Type 92 saw further action in the Chinese civil war, and in the Korean, Indo-China and Vietnam conflicts. **ERRATA:** 70mm HEAT has a Basic To Kill number of "12".

† This Gun may also use Indirect Fire, for which purpose its range is "3-70" hexes (if using Direct Fire it has no such minimum range). All rules applicable to firing a MTR (including the possibility of Spotted Fire and of retaining Multiple ROF) apply to this Gun for Indirect Fire purposes. However, it may not use both Direct and Indirect Fire in the same phase (treating the MPh and DFPh as one). Switching from Direct to Indirect Fire or vice-versa does not cause loss of Acquisition.

† RF vs Russians in 1938 is 1.3; otherwise it is always 1.0.



11. *Year-41 Type Mountain Gun:* This was originally the Krupp Mod. 1908 mountain gun, which the Japanese modified to reduce weight and proceeded to license-build. It equipped mountain (i.e., pack) artillery units initially, but in 1936 was turned over to the infantry who authorized a company of four in each infantry regiment for direct-fire support (sometimes two companies were allotted). Appropriately, it came to be known simply as the "regimental gun" *(rentaiho)*. As originally organized, a SNLF generally had one or two regimental gun platoons (each with two guns); however, by 1943 they were often replaced by coast-defense/AA artillery. Despite its design age, the Year-41 Type remained in production and was frequently encountered by the Allies. The game piece also represents the Type 94 Mountain Gun which, in addition to replacing the Year-41 Type in pack artillery units (which themselves were commonly used as divisional artillery), was issued to certain IMB and IMR.

† HEAT becomes available in 1944—as signified by the superscript "4+".

† RF is 1.3 for 1937, 1.2 for 1938, and 1.1 for 1939-45.



12. *Year-38 Type Field Gun (Improved):* After the Russo-Japanese War the Japanese imported 400 Krupp Mod. 1905 field guns, then built another 300 as the Year-38 Type. Later the guns were modified, resulting in the Improved Year-38 Type which remained the main divisional artillery piece of the IJA through the end of WW2. It also equipped independent field artillery battalions and was issued to some IMB and IMR. The game piece also represents the Type 95 Field Gun (which was adopted in 1935 to replace the Type 90 Field Gun) and the Year-41 Type Horse (i.e., cavalry) Gun. Two 75mm field guns formed a platoon, and four a company.

† This Gun's AP Basic To Kill number is "12"—as signified by "AP TK#: 12" on the counter.

† Use vs Russians is NA in 1938.



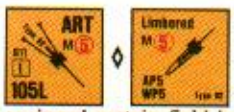
13. *Type 90 Field Gun:* The Type 90, based on a modern French design (the Schneider 85mm mle 1927), was the intended replacement for the Improved Year-38 Type. It was adopted in 1930 amid great secrecy, and was produced in two versions: with wooden spoked wheels for horse draft, and with pneumatic tires for vehicular towing (the latter being dubbed the "Machine-Moved" version). Once in service, however, it was found to suffer from excessive bore wear and, reputedly, recoil malfunctions. Consequently not many were built and, aside from appearing briefly during the initial advances of 1941-42, their use was confined largely to theaters like Manchuria and China where they would not be overused in heavy combat. However, the Type 90's anti-tank potential was noted as early as 1939 in combat against the Russians at Nomonhan, so later in the war some were used as AT guns, primarily against the Americans. The horse-drawn version was intended for use in divisional, and the vehicle-towed model was to be used in independent, field artillery battalions.

† Dates and RF for use in China are 1937-45 (1.3) [EXC: use vs Russians is NA in 1938]. For use elsewhere they are 41-5/42 (1.3), 6/42-44 (1.6), and 1945 (1.3) [EXC: 1.5 vs British in 1945].



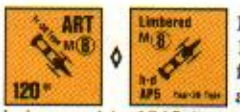
14. *Type 91 10cm Field Howitzer:* The Type 91 was a fairly conventional howitzer, though somewhat archaic looking and extremely light-weight for its caliber and range. Adopted in 1931 and reportedly based on a French Schneider design, it was produced in both wooden-wheel and pneumatic-tire versions. It was used as the divisional medium artillery piece but was issued only to certain divisions. Some IMB and IMR employed it as well. Two Type 91 made up a platoon, and four a company.

† Use vs Russians is NA.



15. *Type 92 10cm Cannon:* Adopted in 1932 to replace the older Year-14 and Year-38 Type 105mm cannons, the Type 92 was a modern design with excellent range for its weight. It equipped certain field heavy-artillery regiments *(yasen juhohei rentai)*, which generally used it for long-range and counterbattery fire. Two formed a platoon, and four a company.

† Use vs Russians is NA in 1938 and 8/45.



16. *Year-38 Type 12cm Howitzer:* Adopted in 1905, this was a modified Krupp weapon manufactured in Japan. It was issued to field heavy-artillery regiments, and despite its age was still being used in 1945 (e.g., a company of four was present on Iwo Jima). It was the only standard 120mm artillery piece used by the IJA. **ERRATA:** The 120* AP Basic To Kill number is "13".

† RF is 1.5 for 1937-42 and 1.6 thereafter [EXC: use vs Russians is NA in 1938 and 8/45].



17. *Year-3 Type 14cm Naval Seacoast Gun:* During WW1 these Vickers-designed 5.5" guns were the secondary armament of some battleships and the main armament of certain light cruisers, as well as being used on other types of IJN vessels. Later, many were converted to coast defense weapons and, still manned by naval personnel, employed in the defense of various Pacific islands. A company generally comprised four guns. **ERRATA:** The 140L AP Basic To Kill number is "32".

† Use is NA vs other than Americans. See also Japanese Ordnance Note E.



18. *Year-4 Type 15cm Howitzer:* Adopted in 1915 to replace the older Year-38 Type 150mm howitzer, the Year-4 Type was one of the earliest (some say the very first) artillery piece of Japanese design. It was issued as heavy artillery to certain infantry divisions, and otherwise equipped field heavy-artillery battalions and regiments. For towing it was normally broken down into two loads (a time-consuming process beyond the scope of the game); towing it as a single load was possible, but overstressed the gun's long trail and often damaged it, rendering the gun useless. **ERRATA:** The 150* AP Basic To Kill number is "17".

† While this Gun is being towed (i.e., not during the [un]hooking procedure), its owner must immediately make a dr (△) every time the towing vehicle has expended a whole multiple of six MF/MP [EXC: all Stop, Start and Delay MF/MP] in its *current* MPh. If this Original dr is a 6, the Gun becomes disabled (mark it with a Gun Disabled counter). This is signified by "Tow Disable: 6 MF/MP&dr*" on the counter. When thus disabled the Gun is still considered hooked up, but once unhooked it is immediately removed from play.

† Use vs Russians is NA.



19. *Type 96 15cm Howitzer:* The Type 96 was a modern, indigeneously designed weapon adopted in 1936. It used the same ammunition as the Year-4 Type howitzer, but had a longer range and could be towed as a single load. Although it was the intended replace-

ment for the Year-4 Type, a low production priority resulted in its merely augmenting the IJA's supply of 150mm howitzers. The Type 96 was used primarily in field heavy-artillery battalions and regiments. A 150mm howitzer platoon comprised two such weapons, and two platoons formed a company.

† RF is 1.6 for 1938-39 and 1.5 thereafter [EXC: use vs Russians is NA in 1938]. See also Japanese Ordnance Note E.



20. *Type 93 Twin-Mount High-Angle Machine Gun:* In 1933 the IJA adopted a licensed, modified copy of the Hotchkiss mle 1930 13.2mm machine gun, designating it the Type 93. (Which is represented in the game by the Japanese .50-cal HMG SW. Its caliber was actually 13.2mm like that of its French counterpart, but is considered 12.7mm for game purposes.) Also adopted, as the Type 93 Twin-Mount High-Angle MG, was another version with two Type 93 HMG mounted side by side on a 600+ lb. tripod that incorporated traverse and elevation gears and a seat for the gunner. Neither weapon was normally organic to IJA infantry units; rather, they were issued to various independent AA companies and battalions. Both types were also used by IJN troops, with a company of ten Type 93 sometimes being organic to a SNLF. Apparently, two guns formed a platoon.

† Make two To Kill DR when using the 12.7 column of the AP To Kill Table; only one DR (firer's choice) is used. Maximum range for To Hit purposes is 16 hexes.

† RF is 1.4 for 1937-10/43 and 1.3 thereafter [EXC: use vs Russians is NA in 1938-39]. See also Japanese Ordnance Note E.



21. *Type 98 High-Angle Machine Cannon:* Adopted in 1938, this was the standard light AA weapon of the IJA, and was also considered a light AT gun. Aside from its carriage and special AA sights it was quite similar to the 20mm ATR; in fact, both could fire the same projectiles. Like many other Japanese weapons, it could be disassembled for animal- or even man-pack transport. Multi-barrel versions on towed and SP mounts were developed but did not see action against Allied ground forces. The Type 98 equipped field machine-cannon companies, which in all but a few cases were not organic to divisions, IMB or IMR. Such a company comprised six Type 98 machine cannons and six Type 93 AAMG. The Type 98 was sometimes referred to as the HO-KI Gun, apparently due to having been derived from a Hotchkiss design.

† When using Limbered Fire, the Barrel Length modification (C4.1) on the counter's LF side is used for To Hit purposes; the Basic To Kill number, however, is still determined using the Caliber Size and Length printed on the unlimbered side.

† Decrease RF by .1 for each year after 1939, until 1.2 is reached in 1944.



22. *Type 96 Single-, Twin- & Triple-Mount Naval High-Angle Machine Cannons:* These guns were the standard light AA armament of IJN vessels. As the war went on, large numbers, still on their shipboard mountings and manned by naval personnel, were used on land to protect airfields, harbors and beaches. For beach defense they were often emplaced in bunkers positioned to bring fire on any approaching landing craft. A company of Type 96 generally comprised 4-6 mountings, with two per platoon.

† The *Type 96 Twin-Mount* and *Type 96 Triple-Mount* cannot achieve Multiple Hits (C3.8). However, when using the 25LL column of the AP To Kill Table, make two (for the *Type 96 Twin-Mount* only) or three (for the *Type 96 Triple-Mount* only) To Kill DR; only one of these DR (firer's choice) is used.

† Dates and RF for the *Type 96 (single-mount)* and *Type 96 Triple-Mount* are 1944 (1.6) and 1945 (1.5) [EXC: vs U.S. they are 1-4/44 (1.6), 5/44-1/45 (1.5), 2-3/45 (1.3), and 4-7/45 (1.6)]. Dates and RF for the *Type 96 Twin-Mount* are the same, but with all RF reduced by .1. See also Japanese Ordnance Note E.

Ordnance Note E



23. *Type 88 7.5cm Mobile Field High-Angle Gun:* Reportedly a loose copy of a 1922 Vickers weapon, the Type 88 was adopted in 1928 and remained the standard mobile AA gun of the IJA through 1945. There was nothing outstanding about its design or performance, but it was available in numbers and hence was widely used, not only in the AA role but also for defense against ground attack and as a coast-defense gun. It proved to be an effective AT gun on more than one occasion. About 2500 were in service during the war. It was issued to the various types of independent/field high-angle-gun regiments, battalions and companies; and, by 1943, some SNLF also contained a company. Two guns formed a platoon, and four (sometimes 6) a company.

† RF is 1.4 for 1937-10/43 [EXC: use vs Russians is NA in 1938-39] and 1.3 thereafter. See also Japanese Ordnance Note E.



24. *Year-10 Type 12cm Naval High-Angle Gun:* Originally designed for use aboard destroyers and various other IJN vessels, this 4.7" gun was the most common Japanese dual-purpose AA/coast-defense weapon of > 100mm. It was still being produced in 1944, and relatively large numbers were employed both to protect airfields and on the more important Pacific islands. A company generally comprised four guns, manned by naval personnel. By 1943, some SNLF contained two companies of these guns. **ERRATA:** The 120L Basic AP To Kill number is "27".

† Dates and RF are 1944 (1.6) and 1-7/45 (1.5) [EXC: vs U.S. they are 7/43-4/44 1.6) and 5/44-7/45 (1.4)]. See also Japanese Ordnance Note E.

JAPANESE MULTI-APPLICABLE ORDNANCE NOTES

A. This weapon may be Animal-Packed (GI0).

B. This weapon is equivalent to an 82mm MTR for the purposes of dismantling (A9.8), SMC usage (A15.23; A21.13), rooftops (B23.85), Passenger PP reduction (C10.13) and Rider PP (D6.2).

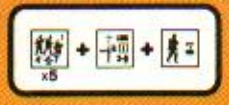
C. As signified by "Tow NA" on the counter, this Gun cannot be towed. However, it may be carried on a vehicle in the same manner as a 76-107mm MTR (C10.1). It is (un)loaded using normal (un)hooking procedures [EXC: the vehicle need not have a T#; ignore its T# if one is present], and reduces that PP capacity by 8 PP while loaded. Section C10 applies otherwise unchanged.

D. As may be signified by "M*" and "NM*" on the counter, this Gun must set up statically emplaced (i.e., immobile). It may be set up in a building only if that building Location is Fortified; and may not be Pushed, limbered, hooked up to, towed by or carried on a vehicle. In addition, the Japanese player may not use 1.441 to purchase a motorized-vehicle/wagon for this Gun.

E. This Gun's applicable RF may be reduced by .2 if *all* of the following conditions are met:

- The scenario is set in 1945 (or, for Japanese vs U.S., in *any* month indicated by "e" in the line for this Gun in the Japanese Ordnance Rarity Factor Chart);
- The scenario contains *ocean* Water Obstacle hexes (/an airfield, if the Gun is an "AA" type); and
- Japanese Ordnance Note D will apply to the Gun for all relevant purposes (even if that Note normally does not apply to it).

[A normally "mobile" Gun whose RF is thusly reduced actually represents the same (or an equivalent naval) weapon on a fixed mount employed for airfield/coast defense.]



JAPANESE ELR CHART			
thru 40	41-43	44	45
3	4	4[1]	4[2]

[1]: "3" vs Chinese.

[2]: "3" vs British/Chinese; "2" vs Russians.

JAPANESE ARMOR LEADER AVAILABILITY DRM		
thru 41	42-43	44-45
+2	+1	0

JAPANESE OBA AVAILABILITY CHART[1]					
YEAR	1937-38	1939-40	1941-43	1944	1945
DR: 2 BPV:	150+ 109 W*	150+ 109 W*	120+ 84	120+ 84	150+ 105
3	150+ 105	120+ 84	150+ 109 W*	150+ 109 W*	150+† 109 W*
4	120+ 84	150+ 105	150+ 105	150+ 105	150+† 105
5	100+ 73 W	100+ 73 W	100+ 73 W	100+ 70	100+ 70
6	100+ 70	100+ 70	100+ 70	100+ 73 W	100+† 73 W
7	70+ 46 W*	80+ 56	80+ 56	80+M 61	80+M 61
8	70+ 46 W*	70+ 46 W*	70+ 46 W*	70+ 46 W*	70+ 46 W*
9	70+ 46 W*	70+ 46 W*	70+ 46 W*	100+ 70	100+† 70
10	70+ 45 W	70+ 45 W	100+ 70	70+ 46 W*	80+M 64 W
11	70+ 45 W	70+ 45 W	70+ 45 W	80+M 64 W	70+ 45 W
12	70+ 45 W	80+ 59 W	80+ 59 W	70+ 45 W	120+† 84
MAX. BPV:	109	109	109	109	109

M: Battalion mortar OBA (C1.22).

W: Can fire WP but not Smoke.

*: Can fire IR (E1.93).

†: Vs Russians, treat as "70+" (BPV: 45 W).

JAPANESE LEADER EXCHANGE TABLE △

DR	New Leader
2-3	10-2
4-5	10-1
6	10-0
7-8	9-1
9-10	9-0
11	None
12	8+1*

*: Replaces 9-0 (or any other leader, if no 9-0 present).

JAPANESE SW ALLOTMENT CHART[1]							
	LMG	MMG[2]	HMG[2]	.50-cal HMG[2]	LT. MTR	FT[3]	DC
thru 40	8	14	18	26	9	4	1[3]
41-6/42	5	12	17	24	4	4	1[3]
7/42-6/43	5	12	17	23	4	4	1[3]
7/43-6/44	5	11	16	22	4	5	1[3]/7[4]
7/44-45	5	10	15	20	5	5	1[3]/6[4]
# In Game	*12*	*6*	*5*	*3*	*10*	*3*	*10*

[1]: SW allotted according to Equivalent number of squads.

[2]: Each such MG received comes with a 2-2-8 crew to man it, just as if it were a Gun (1.212; 1.3).

[3]: Allotted according to Equivalent number of Assault Engineers; see 1.22.

[4]: Allotted according to Equivalent number of *all* squads (including Assault Engineers). DC thusly received are in addition to any allotted to Assault Engineers.

THE GENERAL

Now that you know how to play the game, the next problem is probably **who** to play it with and how to **win**. We can help you with that problem, and many others, through your subscription to our bi-monthly gaming journal, The **GENERAL**. In The **GENERAL** you'll not only read all there is to know about this game, but will also learn about our dozens of other exciting simulation games of skill. Every full-color issue is crammed full of the best articles on the strategy and tactics of the games from The Avalon Hill Game Company and Victory Games. And in 1988, The **GENERAL** expanded to 64 pages. Just look at what The **GENERAL** offers:

Advertising: Our OPPONENTS WANTED COLUMN allows you to advertise, for a minimal fee, for opponents, discontinued games or competition of any sort. Each issue contains dozens of ads which are seen by our many readers worldwide. The fastest way to find an opponent for this game, whether it is across the street or across the Atlantic Ocean, is in the pages of The **GENERAL**.

Contests: In every issue, we pose challenging game situations which you can enter to win free games by utilizing your playing skills for this or any of The Avalon Hill Game Company's many other simulations.

Tactics & Strategy: Learn why you lose or how to win. The nation's best players and our design staff members write many thought-provoking articles on the entire gamut of games by The Avalon Hill Game Company and Victory Games. Many issues contain a SERIES REPLAY in which an actual move-by-move game by master players, profusely illustrated and with commentary by a recognized expert, is printed.

History: Curious about the events portrayed in the game? Articles in The **GENERAL** explain these events and discuss parallels in other games and in other periods of history.

Game Design: Wonder why this game was designed the way it was? Read The **GENERAL** and find out! Our regular DESIGN ANALYSIS column features explanatory treatises by our designers and playtesters.

Variants: Tired of the same old game? Playtested variant rules and scenarios by dedicated experts for this game, and dozens of others, are printed regularly in The **GENERAL**. These bring many more hours of enjoyment, and often serve to highlight the finer points of strategy and tactics. And starting in 1988, The **GENERAL** will also annually include a die-cut variant counter sheet for select game variants. These counters will be free only to regular subscribers to The **GENERAL**.

Questions Answered: In our QUESTION BOX in each issue, you'll find the only official source of rules interpretations and changes for this and our other games.

Product Reviews: Interested in other titles from The Avalon Hill Game Company or Victory Games? Check them out in the READER'S BUYERS GUIDE. The RBG is a game review compiled by our subscribers at large—the people who play the games—not a self-appointed critic. Realism, complexity, components, play-balance and game time are only a few of the categories rated in the RBG.

What's Happening: Most gamers like to know what's going on in the gaming hobby. Each issue contains an installment of AH PHILOSOPHY where we discuss developments in the industry and hobby, and generally strive to keep you informed. Full-page ads announce new titles from The Avalon Hill Game Company. In addition, the INFILTRATOR'S REPORT keeps you abreast on tournaments, conventions, club news, awards and unusual happenings.

Value: In every issue you'll find a value coupon to be applied against the cost of postage when purchasing games directly from The Avalon Hill Game Company.

Since its inception in 1964, The **GENERAL** has stood the test of time. It remains the oldest and most-respected periodical devoted to simulation gaming on the market. And its subscription rates remain the best value. Increase your enjoyment of this and our other games many-fold with a subscription. If you're convinced, send your check for a two-year subscription. See the PARTS LIST enclosed with your new game for prices.

REPLACEMENT PARTS

The **Game and Parts Price List** brochure is available listing prices of all games and components; send a stamped self-addressed envelope with current 1st class postage. To get a complete description of our games, send $1 and ask for our **Consumer Game Catalog** to The Avalon Hill Game Company, 4517 Harford Road, Baltimore, MD 21214. Credit Card (only) purchases may be made at 1-800-999-3222.

JAPANESE VEHICLE RARITY FACTOR CHART

.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6

NAME	37	38	39	40	41	1942 J F M A M J J A S O N D	1943 J F M A M J J A S O N D	1944 J F M A M J J A S O N D	1945 J F M A M J J A	NAME
Types 92A & 92B *Tt* [China]		a								Types 92A & 92B *Tt* [China]
Type 94 *Tt* [China*]										Type 94 *Tt* [China*]
[*vs Russians]										[*vs Russians]
[Malaya-Burma-India]										[Malaya-Burma-India]
[elsewhere*]										[elsewhere*]
[*vs U.S.]										[*vs U.S.]
Type 95 SO-KI *Tt* [China]		a	a							Type 95 SO-KI *Tt* [China]
[Burma]										[Burma]
Types 97A & 97B *Tt* [China]										Types 97A & 97B [China]
[Malaya-Burma-India]										[Malaya-Burma-India]
[elsewhere*]										[elsewhere*]
[*vs U.S.]										[*vs U.S.]
Type 95 HA-GO *LT* [China*]										Type 95 HA-GO *LT* [China*]
[*vs Russians]										[*vs Russians]
[Malaya-Burma-India]										[Malaya-Burma-India]
[elsewhere*]										[elsewhere*]
[*vs U.S.]										[*vs U.S.]
Type 2 KA-MI *aLT* [vs U.S.]										Type 2 KA-MI *aLT* [vs U.S.]
Type 89A CHI-RO *MT* [China]		a	a							Type 89A CHI-RO *MT* [China]
Type 89B CHI-RO *MT* [China*]										Type 89B CHI-RO *MT* [China*]
[*vs Russians]										[*vs Russians]
[Malaya-Burma]										[Malaya-Burma]
[Phil. Is.]										[Phil. Is.]
Type 97A CHI-HA *MT* [China*]										Type 97A CHI-HA *MT* [China*]
[*vs Russians]										[*vs Russians]
[Malaya-Burma-India]										[Malaya-Burma-India]
[vs U.S.]										[vs U.S.]
Type 97B CHI-HA *MT* [China]										Type 97B CHI-HA *MT* [China]
[India-Burma]										[India-Burma]
[vs U.S.]										[vs U.S.]
Type 1 CHI-HE *MT* [China*]										Type 1 CHI-HE *MT* [China*]
[*vs Russians]										[*vs Russians]
[Luzon]										[Luzon]
Type 91 *AC* [China]		a	a							Type 91 *AC* [China]
Type 92 *AC* [China]			a							Type 92 *AC* [China]
[elsewhere]										[elsewhere]
Type 1 HO-NI I *SPA* [China]										Type 1 HO-NI I *SPA* [China]
[Luzon]										[Luzon]
Type 4 HO-RO *SPA* [Luzon]										Type 4 HO-RO *SPA* [Luzon]
Type 1 HO-KI *APC* [Phil. Is.]										Type 1 HO-KI *APC* [Phil. Is.]
Type 98 SHI-KE *PC*										Type 98 SHI-KE *PC*
Type 92 I-KE *PC*										Type 92 I-KE *PC*
Type 95 *tr*										Type 95 *tr*
Type 94 *tr*										Type 94 *tr*
Type 97 *tr*										Type 97 *tr*
NAME	37	38	39	40	41	J F M A M J J A S O N D 1942	J F M A M J J A S O N D 1943	J F M A M J J A S O N D 1944	J F M A M J J A 1945	NAME

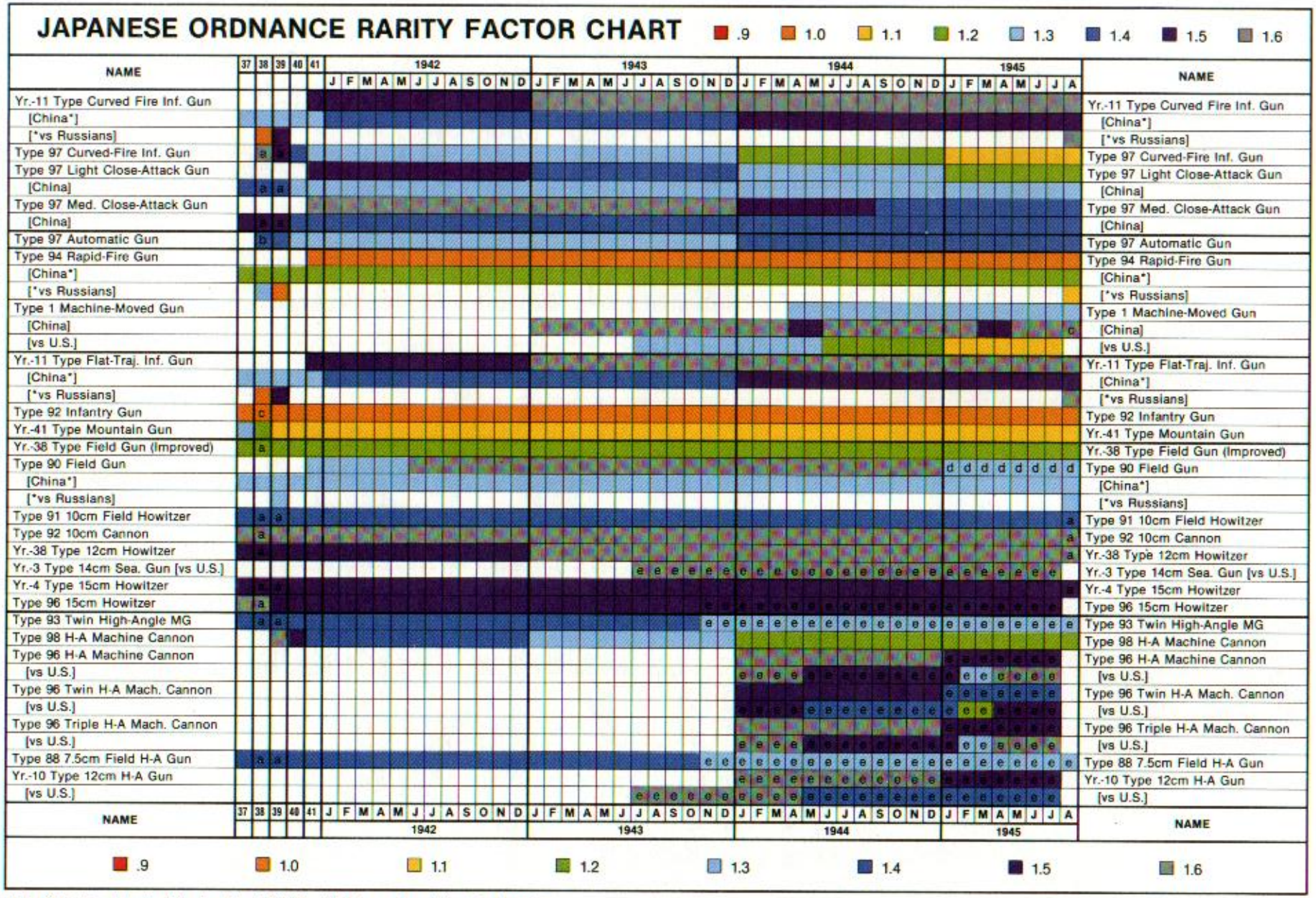
.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6

Note: "China" includes "vs Russians" for 1938-39 and 8/45, except as indicated otherwise.

a: NA vs Russians

JAPANESE ORDNANCE RARITY FACTOR CHART

.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6



Note: "China" includes "vs Russians" for 1938-39 and 8/45, except as indicated otherwise.

a: NA vs Russians b: 1.1 vs Russians c: 1.3 vs Russians d: 1.5 vs British e: See also Japanese Ordnance Note E

CHINESE VEHICLE NOTES

During the early 1930s China possessed not a single factory capable of producing a tank, truck or airplane. Consequently, all AFV and transport vehicles were imported, leaving Chinese forces not only with a myriad of different makes and models but also highly dependent on a steady flow of parts and ammunition from the various manufacturers thousands of miles away. The first tanks to arrive in China were Renault FT-17s, 36 of which were purchased by the commander of the Manchurian Army in 1924. They were used in fighting between several of the northern warlords; later the survivors became the first tanks in the Nationalist armory, being used in Manchuria against the Japanese in 1931. It appears that when the 1937-45 War of Resistance against Japan broke out in July 1937, the Nationalists fielded three armored battalions comprising some 96 "tanks" (probably inclusive of tankettes and armored MG carriers). However, by 1938, after the fall of Shanghai and Nanjing (Nanking), more than half of them had been lost. Subsequent purchases from the Soviet Union and Italy brought the total up to about 200 by early 1941. From that time the U.S. and, to a lesser degree Britain and the Commonwealth, took over as the main suppliers of war materiel to China.

Chinese ordnance nomenclature was similar to the Japanese in its use of a "Type #" dating system. However, the Chinese based theirs on the year 1911, the founding year of the Republic. Thus the Type 22 armored car dated from 1933 (22+11=33), while the Type 31 mortar was accepted in 1942. Unfortunately, most of the Chinese designations for their various types of equipment are unavailable in Western sources.

One interesting historical note, not directly relative to Chinese vehicles but nonetheless worth mentioning, is the influence of German and Soviet advisors on the Nationalist military in the 1930s. During that decade, such famous figures as von Seekt and von Falkenhausen—and later, Zhukov and Chuikov—were top military advisors to Jiang Kai-shek. The German influence, being both of longer duration and politically more akin to the beliefs of the Generalissimo, were by far the greater.



1. *VCL M1931(b):* This diminutive amphibious tank first appeared in 1930-32 in two slightly different versions. The British War Office designated them the A4E11 and A4E12 for testing purposes, but declined to accept them for service. They were then offered for sale abroad, and numbers were purchased by several countries including Siam and the Netherlands East Indies. The Soviet Union bought eight, and from them developed the T-37 (Russian Vehicle Note 1). China ordered twenty-nine, the last of which was delivered in May 1935. These were assigned to the 1st Tank Battalion in Shanghai where they participated in the battles for that city in 1937. The Chinese version carried a Vickers 7.92mm machine gun in its one-man turret, and had balsa-wood floats encased in sheet metal over its tracks to provide additional bouyancy. Water propulsion and steering were provided by a propeller and rudder on the rear hull. "VCL" stands for "Vickers Carden-Loyd".

† The Target Size TH DRM is +3 (and also HD) if in a Water Obstacle or deep/flooded stream.

† RF is 1.2 for 1937, 1.4 for 1938, and 1.6 thereafter.



2. *L3/35(i):* In the latter half of the 1930s Italy sold about 100 late-production L3/35 (Italian Vehicle Note 2) to China. They were still being used in 1945. Chinese L3/35 differed from the standard Italian versions by carrying different machine guns designed to fire Chinese-made ammunition. Twenty L3/35 were assigned to the 3rd Tank Battalion in Nanjing (Nanking).

† If Stunned, this AFV may not regain CE status, may not fire any weapon, and is Recalled as per D5.341; these are signified by "Stun=Recall & CE/FP NA" on the counter.

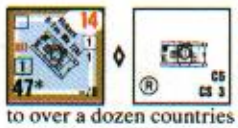
† The BMG may be Scrounged as one or two LMG (as per D10.5), but is considered one MG for malfunction, repair and disablement purposes.

† RF is 1.2 for 1937-38, 1.3 for 1939-40, 1.4 for 1941-42, and 1.5 thereafter.



3. *PzKpfw IA(g):* This was the original version of the PzKpfw I (German Vehicle Note 1). A small number—perhaps as few as ten—were sold to China in the mid 1930s. Upon arrival they were assigned to the 3rd Tank Battalion in Nanjing (Nanking), where they very likely saw action in late 1937. The PzKpfw IA was felt to be underpowered for its size, due to the modest horsepower of its Krupp air-cooled gasoline engine (which also had a tendency to overheat).

† RF is 1.3 for 1937, 1.5 for 1938, and 1.6 thereafter.



4. *Vickers 6-Ton Mk E(b):* The Vickers 6-tonner was one of the more influential tank designs of the 1930s. Although not adopted by the British, it was sold (in a number of different versions) to over a dozen countries and provided the basis for the Russian T-26 (see Note 5 below) and Polish 7TP tanks. A total of twenty 6-tonners were purchased by China; sixteen of the Mk E type and four Mk F. Assigned to the 1st and 2nd Tank Battalions stationed at Shanghai, many were lost to the Japanese during the fighting around that city in 1937.

† RF is 1.2 for 1937, 1.4 for 1938, and 1.6 thereafter.



5. *T-26TU M33(r):* In 1938-39, with tensions high between the U.S.S.R. and Japan, the Soviets supplied China with eighty-eight T-26 M33 tanks (Russian Vehicle Note 6). Photographic evidence indicates that they were radio-equipped; hence the TU designation in the name. They were assigned to the 1st Tank Regiment, of which at least a part was attached to the newly forming 200th Division, the only entirely motorized division in the Chinese Army. In early 1942 the 200th, along with a small number of (one source says only nine) T-26, was sent to Burma. It fought well there, but most if not all of its tanks were lost. Thereafter, Chinese T-26 saw action only in China.

† Each time a Mechanical Reliability DR (D2.51) is made for this AFV, an "11" result indicates that it has Stalled. Its owner must then immediately make another DR, which equals the total number of Delay MP (including one MP to Stop, but excluding the MP expended to Start) that the AFV has used in the unsuccessful attempt to move. It may again attempt to move (if otherwise allowed), but must expend another MP to Start—and must undergo another Stall DR as it does so. An AFV that stalls is subject to Defensive First Fire during the MPh (since it has expended a MP to Start), but not as a moving target unless it started the phase in Motion or had already entered a new hex during that phase. Should a Stall DR result in more Delay MP being expended than the AFV has available, it is considered to have expended its entire MP allotment in Delay.

† Optional AAMG RF is 1.2.

† Dates and RF for use in Burma are 3/42 (1.3), 4/42 (1.4) and 5/42 (1.5). RF for use in China is 1.4 for 1939-42 and 1.5 thereafter.



6. *M3A3(a):* In October 1943 the 1st Provisional Tank Group (Chinese-American) was formed in Ramgarh, India, using Chinese personnel and Stuart V light tanks (British Vehicle Note 4) transferred from British Lend-Lease stocks. It was envisioned that the Group would eventually comprise six tank battalions, but not enough tanks could be supplied to achieve that goal, so only two were actually outfitted. Attached to X-Force, the 1st Tank Battalion, Provisional, saw action in northern Burma, while the 2nd was apparently used only for supply-line patrol duty. Later in the 1940s these two battalions formed the core of Nationalist armor in the Chinese civil war.

† Optional AAMG RF is 1.1.

† RF is 1.2 for 2-4/44 and 1.3 thereafter.



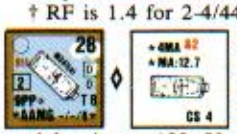
7. *M4A4(a):* These were Sherman V medium tanks (British Vehicle Note 14) supplied by the British. The 1st Provisional Tank Group (Chinese-American) attached to X-Force in Burma contained one platoon of M4A4 to provide supporting fire, and this platoon was evidently assigned to the 1st Provisional Tank Battalion (see Note 6 above).

† This AFV is allowed the possibility of Multiple Hits (C3.8) even though its MA is > 40mm. Moreover, in a Gun Duel (C2.2401) its total Firer-based TH DRM are halved (FRD) prior to adding any Acquisition DRM. (The final total of all DRM may not be < zero, and applies for Gun Duel calculations *only*.) These abilities are signified on the counter by the ROF # being printed on a white background.

† WP becomes available in June 1944—as signified by the superscript "†4+".

† Optional AAMG RF is 1.3.

† RF is 1.4 for 2-4/44 and 1.5 thereafter.



8. *M3A1(a):* As part of their initial Lend-Lease request in early 1941, the Nationalist government asked the U.S. for 400 scout cars. In October of that year the first 35 M3A1s (along with 48 75mm pack howitzers, 100 .50-cal. HMGs, 500 Bren LMGs and 11,000 Tommy guns) were shipped from New York aboard the *SS Tulsa*. However, in late December of that year, much of its cargo was turned over to the British

CHINESE VEHICLE LISTING

#	Name & Type	®	WGT	BPV	RF	Dates	Size	AF	TA	OT	CS	MP	GP	GT	MA	ROF	B#	BMG	CMG	AAMG	Am	s#	PP/T#	Notes
3	VCL M1931(b) *aTr*	•	3	27	1.2-1.6†	35-45	+2†	0			2	16²	L	1MT	CMG	1	11		6					11†,A,B
3	L3/35(i) *Tr*	•	3.5	19	1.2-1.5†	37-45	+2	1/0			2†	13	L		BMG†¹	1	11	4†						2†,A,B,D†¹
3	PzKpfw IA(g) *Tr*	•	5.5	23	1.3-1.6†	36-45	+1	1			2	13	L	1MT	CMG†¹	1	11		6					3†,A,B,D†¹
3	Vickers 6-Ton Mk E(b) *LT*	•	7	29	1.2-1.6†	35-45	+1	1	+F		3	14	L	RST	T47*	1	11†¹		6		C5†²			4†,A,B,C†²,E†¹
6	T-26TU M33(r) *LT*		10.5	28	1.3-1.5†	39-45†	0	1	+F		3	12†		RST	T45L	1	11†¹		4¹²	Opt2†				5†,A,E†¹
6	M3A3(a) *LT*		14.5	41	1.2-1.3†	2/44-3/45	+1	6/3	+SR		4	17		ST	T37LL	1	11†²	2	4	Opt2†	C9†¹			6†,A,B,C†¹,E†²,G
3	M4A4(a) *MT*		30.5	56	1.4-1.5†	2/44-3/45	−1	8/4	+SR		5	13		T	T75	1†	11†¹	2	4	Opt4†		8;WP7¹⁴+†		7†,A,B,E†¹,G
2	M3A1(a) *SC*		5.5	31	1.3-1.4†	11/43-3/45	+1	0	+F	•	4	28¹	H		AAMG†	2	11†¹		6†				9PP†/T8	8†,A,B,E†¹
2	Stuart Recon(a) *"SC"†*		13.5	32	1.5-1.6†	2/44-3/45	+1	6/3		•	5	18			AAMG†¹	1	11†²	2	8†				7PP†	9†,A,B,D†¹,E†²
2	Type 22 *AC*	•	4	20	1.5-1.6†	33-45	0	0			4	22†¹		RST	CMG†¹	1†¹	11†²		2×2†¹					10†¹,B,E†²,F†
3	PSW 221(g) *AC*		4	25	1.3-1.5†	36-45	+1	1		•	2	34†		1MT†	CMG	1	11		5	†				11†,A,B,F†
2	PSW 222(g) *AC*		5	29	1.4-1.6†	36-45	+1	1		•	3	33†		ST	T20L	2 (4)	11†¹		5	†				11†,A,B,E†¹,F†
2	BA-20(r) *AC*	•	3	20	1.6	39-45	+1	0			3	21†¹	H	1MT	CMG	1	11		4					12,A,B,F†
2	BA-6(r) *AC*	•	5	27	1.6	39-45	0	1/0	+FSR		4	19†¹		RST	T45L	1	11†¹	2	4					12,A,B,E†¹,F†
4	VCL Mk VI Carrier(b) *APC*		1.5	15	1.3-1.6†	29-45	+2	0		•	2†	14	L†¹		BMG†	2	11	Opt6†					1PP/T10†	13†,A,B,H†¹
3	Carrier A(b) *APC*		4	19	1.6-1.3†	42-45†	+2	0		•	3	16	L		BMG	1	11	2		†			4PP/T10³†	14†,A
3	Carrier B(b) *APC*		4	20	1.6-1.3†	42-45†	+2	0		•	3	16	L		BATR†	1	11†¹			2			4PP/T10³†	14†,A,E†¹
2	Carrier C(b) *APC*		4	22	1.6-1.4†	43-45†	+2	0		•	3	16	L		BMG†	1	11†¹	4		2			4PP/T10³†	14†,A,E†¹
6	Henschel 33(g) *Tr*		9.5	18	1.3-1.6†¹	35-45†¹	0	★			7	23†¹											29PP/T4	15†¹,A,F†
3	Jeep(a) *Tr*		1.5	15	1.6-1.3†	42-45†	+2	★			2†	37¹	L†¹		AAMG†	1or2†	11			Opt2or4†			9PP/T10	16†,A,H†¹
6	2½-Ton(a) *Tr*		7.5	20	1.6-1.4†	42-45†	0	★			7	28¹											29PP/T5	16†,A

at Rangoon, which leaves it unclear as to how much (if any) of its cargo ever reached the Chinese. A total of 129 M3A1s were eventually Lend-Leased to the Nationalists, with most (if not all) probably being used by X-Force in Burma.

† This AFV starts the scenario with an Inherent crew, and also with a 2-2-7 crew as a Passenger that applies to the vehicle's PP capacity (D6.1) and is additional to all 2-2-7 crews listed in the scenario OB. This AFV may retain any unpossessed SW aboard it (D6.4), either of its crews may Remove either of its MG, and Mounted Fire penalties (D6.1) do not apply to its Passenger(s). **ERRATA:** For both the Chinese and U.S. versions of the M3A1 Scout Car, the MA is Removed as a dm .50-cal. HMG and the other MG is removed as a dm MMG.

† The AAMG FP actually consists of two MG: one .50-cal HMG (MA; 4 FP) and one secondary .30-cal MMG (2 FP)—as signified by "4MA&[red]2" on the counter. The Inherent crew may fire only the .50-cal MA unless it is malfunctioned or disabled, in which case the Inherent crew may fire the secondary AAMG instead. Otherwise, only a Good Order *Passenger* may use the secondary AAMG (as signified on the counter by printing its FP in *red*). Assuming they are properly manned, the MA AAMG and secondary AAMG may be fired together as a FG or at separate targets (as per D3.5). *The secondary AAMG, when being fired by a Passenger, counts as use of a SW by that Passenger.*

Each AAMG malfunctions and is repaired or disabled independently of the other. If the MA AAMG malfunctions, mark the vehicle with a "MA Malfunction" counter to show that its secondary AAMG is still usable. If the secondary AAMG malfunctions, mark it with an "AAMG Malfunction" counter. Since the ROF applies only to the MA (A9.2), the owner must announce before he fires that he is using the MA if he wishes to possibly retain a multiple ROF. An Armor/Passenger leader may direct the fire of more than one vehicular-mounted/Passenger-fired MG only if those MG are firing together as a FG.

† RF is 1.3 for 11/43-2/44 and 1.4 thereafter.



9. *Stuart Recon(a):* A small number of M3A3 tanks in the 1st Provisional Tank Group (Chinese-American) had their turret removed in order to add a slightly built-up superstructure with pintle-mounted machine guns. These altered Stuarts were used as command/reconnaissance vehicles.

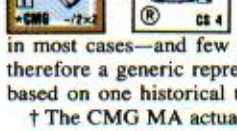
† The MA may be fired only at a target that lies within this AFV's VCA—as signified by "MA: VCA only" on the counter. See also Chinese Vehicle Note D.

† The cost for Passenger(s) to (un)load is doubled to ½ of the AFV's MP allotment and two MF for the Personnel—as signified by "(un)load × 2" on the counter. All attacks made by the Passenger(s) of this AFV are halved (or receive a +2 TH DRM) as Mounted Fire (D6.1). This AFV may retain any unpossessed SW aboard it (D6.4), but its MG may not be Removed.

† The AAMG may be Scrounged as one or two LMG (as per D10.5), but is considered one MG for malfunction, repair and disablement purposes.

† The "Scout Car" designation is given only in deference to the vehicle's historical use. For all game purposes it is treated as fully tracked.

† RF is 1.5 for 11/43-2/44 and 1.6 thereafter.



10. *Type 22:* Both warlords and Nationalist forces converted foreign trucks into armored cars at various times. Unfortunately, very little is known about these vehicles—not even their names in most cases—and few photographs of them exist. This game piece is therefore a generic representation of such indigenously produced AFV, based on one historical type.

† The CMG MA actually comprises two 2-FP CMG. Each has a 360° traverse independent of the other, and thus can have its own TCA. Each has a Normal Range of eight hexes and may be Removed or Scrounged—as signified by "Nml Rng 8" and "Rmvl/Scrng OK" on the counter. The two CMG may fire at separate targets in different Locations or at the same Location; D3.5 applies unchanged. Each MG malfunctions, and is repaired or disabled, independently of the other. Disabled-MA Recall (D3.7) occurs only when both MG are disabled.

Whichever of the two MG fires *first* in a phase is considered the MA for both that attack and the remainder of that phase (treating Defensive First and Final Fire as one phase). If both fire as a FG, only one can be considered MA (and thus might retain Multiple ROF); if one of them in that FG malfunctions, determine randomly whether or not it was the one considered MA for that phase.

† Reverse movement costs this vehicle three times its normal hex entry

cost—as signified by "REV×3" on the counter.

† RF is 1.5 for 1937-42 and 1.6 thereafter.



11. *PSW 221(g) & PSW 222(g):* A small number—perhaps a few dozen in all—of these armored cars (German Vehicle Notes 69 and 70), along with a few PSW 223 long-range-radio variants, were purchased from Germany in the mid 1930s. The PSW 221 was apparently the most common German armored car in Nationalist service. Some of these vehicles are reputed to have been used in the 3rd Tank Battalion stationed at Nanjing (Nanking), and most likely saw action there in late 1937.

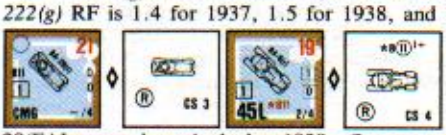
Several WW1 Lancia 1ZM armored cars (Italian Vehicle Note 19) were shipped from Italy to China in 1937, evidently intended for the Italian garrison in Tianjin (Tientsin). It is not known if any were turned over to the Chinese.

† All 1MT restrictions apply in the normal manner to the *PSW 221(g)* [EXC: the crew must be CE to fire the CMG]; this is signified by "BU FP NA" on the counter.

† The MA of the *PSW 221(g)*, and both the MA and CMG of the *PSW 222(g)*, have AA capability—as signified by "MA: AA" on the counter.

† Reverse movement costs the *PSW 221(g)* four times, and the *PSW 222(g)* three times, its normal hex entry cost; these are signified by "REV×4" and "REV×3" on the respective counters.

† *PSW 221(g)* RF is 1.3 for 1937, 1.4 for 1938, and 1.5 thereafter. *PSW 222(g)* RF is 1.4 for 1937, 1.5 for 1938, and 1.6 thereafter.



12. *BA-20(r) & BA-6(r):* The Nationalists purchased a small number of Soviet BA-6/BA10/BA-20/FAI armored cars in the late 1930s. (In game terms, the BA-10 is equivalent to the BA-6 and the FAI is equivalent to the BA-20.) What use the Chinese made of these vehicles is unknown; however, given the scarcity of roads in the country and the poor off-road capability of these AFV, they probably saw little action outside of urban areas.



13. *VCL Mk VI Carrier(b):* This tiny AFV, which utilized a Ford Model T engine and drive train, first appeared in 1927. It was designed to provide increased mobility for the Vickers MG, and could also be used to tow a light gun. Besides being adopted by the British Army, several hundred were sold abroad, leading to such foreign designs as the Italian L3/35 (Note 2 above) and Polish TK tankettes. Twenty-four Mk VI Carriers were ordered by China, with the first shipment arriving there in May 1929. Those still operational in the late '30s were assigned to the 2nd Tank Battalion in Shanghai.

† The VCL Mk VI is considered a Carrier (D6.8) [EXC: it has a Passenger capacity of one PP for ammunition (C10.13) or *one* SMC or *one* 1PP-SW, but may not carry a Rider(s); it contains an Inherent *crew* even if unarmed, and that original crew *always* takes counter form as a 2-2-7 infantry-crew].

† The MF expenditures given in C10.11 and C10.12 for (un)hooking a Gun apply unchanged if the MMC performing that action is simultaneously (un)loading from/into this Carrier.

† If Stunned, this AFV may not fire and is Recalled as per D5.341; this is signified by "Stun=Recall & FP NA" on the counter.

† Optional BMG RF is 1.2.

† RF is 1.3 for 1937, 1.5 for 1938 and 1.6 thereafter.



14. *Carriers A(b), B(b) & C(b):* The British, Canadians and Australians apparently all supplied Carriers to China. Various sources state that 1500 were provided by Australia and 1200 by Canada, but it seems unlikely that the Chinese successfully took delivery of that many prior to the end of hostilities. Nor is it clear just how these Carriers were employed; however, at least one Chinese "armored carrier" company was present in Burma in 1942, and Carriers were also used there in 1944-45 by the 1st Provisional Tank Group (Chinese-American). The use of "A", "B" and "C" in the piece names are our own designations to help differentiate between similar models.

† See D6.8-.84 for the basic rules pertaining to Carriers. Towing capability is not usable prior to 1945—as signified by the superscript "5". If a Carrier A, B or C is to start a DYO scenario as a towing vehicle, a 2-2-7 infantry-crew may be purchased for it in lieu of its Inherent HS; this is done by adding two points in the "Opt BPV" column of the DYO Roster's "Vehicle" section. The MF expenditures given in C10.11 and C10.12 for (un)hooking a Gun apply unchanged if the MMC performing that action is simultaneously (un)loading from/into a Carrier A, B or C.

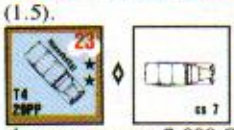


† The *Carrier A's* MA BMG may be repositioned as a normal MA AAMG. This can be done only by placing an AA counter on the Carrier at the end of any friendly fire phase (not MPh) in which the BMG has not fired and the Inherent MMC is not stunned, shocked, broken or in Melee. As long as the AA counter remains on the Carrier, its FP is assumed to be "-/-/2" with a *zero* Multiple ROF. The AAMG may be repositioned as the BMG MA by using these same principles to remove the AA counter.

† The *Carrier B's* BATR has a "1" Multiple ROF, has a maximum TH range of 12 hexes (as signified by "[12] TH" on the counter), and may be Scrounged/Removed.

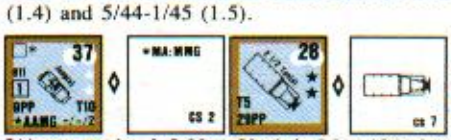
† The *Carrier C's* MA may not be Removed, as signified by "Rmvl NA" on the counter, and may be Scrounged only as a LMG.

† *Carrier A(b)* and *Carrier B(b)* Dates and RF for use in China are 1942-45 (1.6); for use in Burma they are 3-5/42 (1.5), 11/43-4/44 (1.3) and 5/44-3/45 (1.4). *Carrier C(b)* Dates and RF for use in China are 1943-45 (1.6); for use in Burma they are 11/43-4/44 (1.4) and 5/44-3/45 (1.5).



15. *Henschel 33(g) Truck:* As with so many other types of materiel, the Chinese acquired transport vehicles from many different nations (including the U.S.) during the 1930s. By 1939 there were some 7,000 German trucks alone in China, of which probably a good number were Henschel 33, a widely exported model. Due to bad roads, few spare parts and the lack of proper maintenance, vehicles in China were invariably in poor mechanical condition (as evidenced in the game by the large percentage of Chinese vehicles with red MP allotments), and only a fraction of the total number were in operating condition at any one time. Moreover, no organized transport system for the army even existed. Of the more than 300 Chinese divisions, only one—the 200th—was completely motorized.

† RF for use in China is 1.3 for 1937-38, 1.4 for 1939-41, 1.5 for 1942-43, and 1.6 thereafter. Dates and RF for use in Burma are 3-5/42 (1.4) and 5/44-1/45 (1.5).



16. *Jeep(a) & 2½-Ton(a) Truck:* The very first Lend-Lease shipment to China, consisting of 300 2½-ton trucks, left New York in May 1941 bound for Rangoon. By the end of that year vehicles were trickling across the Chinese border via the Burma Road, but bottlenecks along the route were creating a substantial backlog around Burma's capital. As a result, when the invading Japanese neared the city in March of 1942, 972 Lend-Lease trucks in various stages of assembly had to be destroyed, and 683 more plus 260 Jeeps were hurriedly transferred to British control. Once the Burma Road was cut, all transport vehicles bound for China proper had to be flown over the Hump and re-assembled in Kunming. U.S. trucks and Jeeps were supplied to X-Force, and Y-Force was provided with 475 Jeeps. By the end of 1944 there were approximately 10,000 trucks in Nationalist-controlled China, but according to one estimate only about 2,000 of them were in operating condition. To make matters worse, they were dispersed among various Chinese agencies and private owners. Despite pleas from U.S. advisors, it was not until 1945 that even a half-hearted attempt was made to exercise some degree of control over motor transport for the army.

During the course of Lend-Lease, a total of 24,991 trucks were released to China, comprising 11,982 of ≤ one ton (including Jeeps), 2,616 of 1½ to 2 ton, 10,230 2½-ton and 163 of > 2½ tons. It should be noted, however, that many of these probably arrived after the end of hostilities in 1945.

† If armed, the *Jeep* has an Inherent crew and thus a CS# instead of a cs#. The *Jeep's* optional AAMG is a .50-cal HMG (RF 1.3) if 4 FP or a MMG (RF 1.1) if 2 FP—and may be Removed (D6.631) as that type of MG (i.e., as a .50-cal. or MMG respectively).

† *Jeep(a)* Dates and RF for use in China are 1942-43 (1.6) and 1944-45 (1.5); for use in Burma they are 3-5/42 (1.5) and 11/43-3/45 (1.3). *2½-Ton(a)* Dates and RF for use in China are 1942-43 (1.6) and 1944-45 (1.5); for use in Burma they are 3-5/42 (1.5) and 11/43-3/45 (1.4).

CHINESE MULTI-APPLICABLE VEHICLE NOTES

A. "(a)", "(b)", "(g)", "(i)", or "(r)" in the piece name stands for "American", "British", "German", "Italian" and "Russian" respectively. For ESB (D2.5) purposes, a Chinese tracked vehicle is treated as being of the nationality indicated by the parenthesized letter in its name, but must also add an extra +1 DRM to its ESB DR.

B. This vehicle was used by the Chinese *only* in Burma [EXC: if "B" appears, it was *not* used by them in Burma].

C. 37mm and 47mm canister have 12 FP.

D. Make two TK DR on the MG column of the AP TK Table; only one DR (firer's choice) is used. This is signified by "2 TK DR" on the counter.

E. The MA *and all MG* have B11. This is signified by "B11" in *red* on the counter (**bold** in the Vehicle Listing). If "B (11)+" appears on the reverse side of the counter, the MA's B# is a circled "11" (D3.71) for scenarios set in/after 1941 (*non-circled* B11 remains applicable to the vehicle's MG in such scenarios).

F. This vehicle, despite being non-tracked, has its MP allotment printed in *red* (**bold** in the Vehicle Listing) and thus is subject to Mechanical Reliability DR as per D2.51.

G. May be equipped with a Gyrostabilizer as per D11.

H. When this vehicle is Bogged, one (only) CX squad (even a prisoner, but not a Guard) on foot expending ≥ four MF in the vehicle's Location (and declared to be assisting its unbogging) thereby allows the owning player to subtract two (one per crew or HS) from the colored dr of its immediately subsequent Unbogging DR.

CHINESE ORDNANCE NOTES



1. *Type 27 Grenade Launcher:* This small mortar was designed and produced in China. The designation "Type 27" indicates its acceptance for service in 1938 (1911 [founding year of the Chinese republic]+27=1938). A lever-type trigger was pulled to fire the grenade, and a two-hole gas regulator cap at the bottom of the tube bled off propellant gas for range adjustment. The weapon was not standard issue, its presence/quantity in a given unit being dependent on its availability and the commanding officer's preference.

† Air Burst TEM never applies to an attack by this mortar (i.e., normal woods/jungle/bamboo TEM would apply). This is signified by "Air Bursts NA" on the counter.



2. *Mortaio da 45 "Brixia", 5cm leGrW 36, 50mm RM obr. 38 & Type 89 Heavy Grenade Launcher:* The Nationalists imported various types of foreign light mortars, with those from Germany ["50mm MTR(g)"], the U.S.S.R. ["50mm MTR(r)"] and Italy ["45mm MTR"] being numerically the most important. The Red Chinese received some light mortars from the Soviets, and captured (as well as clandestinely purchased) numbers of Nationalist mortars. Both also employed the knee mortar ["50mm MTR(j)"], which, aside from machine guns, was the most common captured Japanese support weapon in Chinese service; all that could be obtained were put to use, with the number growing as the war went on. Chinese arsenals manufactured copies of the German and Soviet weapons, plus ammunition for them (and for the knee mortar), while Resistance forces built a small number of knee mortars. Unfortunately, information on the tactical employment of these mortars is nil.

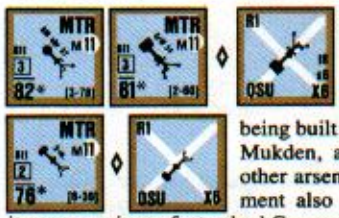
† The following special rules apply to the *50mm MTR(j)*:

- When firing HE at a range of ≤ two hexes, the ROF is lowered to "1" for that shot and Air Bursts are NA.
- WP can be fired only at a range of 1-5 hexes, reduces the ROF to "1" for that shot, *is considered Dispersed even when fired in the PFPh*, and Air Bursts are NA.
- Smoke can be fired only at a range of 3-10 hexes.
- A Japanese Personnel unit may use it with *no* Captured-use penalty (and it may be fired from a cave; G11.83).



3. *M2 60mm Mortar:* This mortar (U.S. Ordnance Note 1) was supplied to the Chinese divisions of X-Force and Y-Force in Burma (1,238 were furnished to the latter, plus perhaps as many as 810 to X-Force), and to those that were U.S. trained-and-equipped to fight in China. In X-Force, each rifle company was authorized six M2. The game piece also represents the French 60mm mle 35 (from which the M2 was derived) and the Type 31, a Chinese copy of the French/U.S. model(s). The Type 31 entered production in 1942 or shortly thereafter, and 5,150 had been built by mid 1945. Total Chinese production of light mortars during the war years is estimated to have been about 12,000.

† Three M2 60mm may be used as OBA as per U.S. Ordnance Note 1 and G17.5.



4. *Stokes 3-in., 8cm GrW 34 & 82mm BM obr. 37:* The Stokes 3-in. mortar (see British Ordnance Note 2) was produced in China from 1925, being built initially in the Manchurian arsenal at Mukden, and was still being manufactured at other arsenals in 1937. The Nationalist government also imported, and eventually produced its own versions of, standard German and Soviet medium mortars. Chinese arsenals produced ammunition for all these types as well. Since most Chinese divisions lacked organic field guns and howitzers, mortars were usually their sole source of artillery support. A Nationalist infantry regiment generally contained a company of 6-8 medium mortars, giving the division an average of 18-32 such weapons (depending on its structure). One source states that 5,242 82mm mortars were built in China between early 1941 and mid 1945. In mid 1942 some 8,000 trench mortars of all sizes were in service. Aside from its different maximum range, the 82mm piece (along with its initial availability Date) also represents the French 81mm mle 27/31 and the Italian Mortaio da 81/14, small numbers of which were in Nationalist service.



5. *M1 81mm & M2 4.2-in. Mortars:* These mortars (U.S. Ordnance Notes 3 and 4) were used by X-Force in Burma (with perhaps as many as 180 81mm being furnished). A company of twelve 81s was authorized in each infantry regiment, while the 4.2s were formed into a nondivisional heavy mortar regiment. At the end of 1944 a number of 4.2s were shipped to China for use by U.S.-trained forces, but apparently saw no action there prior to the war's end. The Chinese also used captured Japanese medium mortars whenever available. In addition, by the early '40s (perhaps even earlier) they had a small number of 150mm mortars in service, but it is not clear whether these were an indigenous design (around 1930, the Mukden arsenal had produced some experimentally) or captured Japanese models.

† The Area Target FP of the *4.2-in.* is "12" (rather than "8"). This is signified by "12 Area FP" on the counter.



6. *3.7cm PaK 35/36 & M3A1 37mm:* The PaK 35/36 (German Ordnance Note 6) was the standard AT gun of Nationalist forces. In addition to purchasing numbers of it, production facilities were imported which allowed the gun to be manufactured in China. An infantry regiment might have two such guns, but most were formed into independent AT regiments controlled at army (U.S. corps) level or higher. In mid 1942 China possessed 600-750 "modern", and about 250 "obsolete", AT guns. The M3A1 (U.S. Ordnance Note 6) was issued to X-Force and Y-Force divisions (189 were supplied to Y-Force, and perhaps as many as 120 to X-Force) for use in Burma; each X-Force infantry regiment was authorized an eight-gun AT company. From mid 1944 a small number of M3A1 were provided to Chinese forces in southeast China.

† *M3A1* Dates and RF for use in China are 7/44-45 and 1.6.



7. *37mm PP obr. 15R & Cannone da 70/15:* Small numbers of this WW1 infantry gun (Russian Ordnance Note 11) and pre-WW1 mountain gun (Italian Ordnance Note 7) saw service with the Chinese. However, these counters mainly represent, in a generic manner, the many diverse types of antiquated artillery pieces used in China's provincial armies.

† The *70/15* may not use Target Acquisition—as signified by "Acq.



CHINESE ORDNANCE LISTING

#	Name	Type	CSize	ROF (IFE)	B#	Range	M#	TSize	Dates	Special	BPV	RF	Notes
4	Type 27 Grenade Launcher	MTR	40	1	11	1-6	—	—	38-45	2PP, Air Bursts NA†	—	—	1†,A
3	Mortaio da 45"Brixia"	MTR	45*	2	11†	2-13	—	—	36-45	4PP	—	—	2,A,D†
4	5cm leGrW 36	MTR	50*	3	11	2-13	—	—	37-45	5PP	—	—	2,A
3	50mm RM obr. 38	MTR	50*	3	11	3-20	—	—	39-45	5PP	—	—	2,A
4	Type 89 Heavy Grenade Launcher	MTR	50*	2†	11	1-16†	—	—	38-45	4PP, s5, WP5, IR	—	—	2†,A
4	M2 60mm	MTR	60*	3	11	3-45	—	—	43-45	5PP, IR, OBA†	—	—	3†,A
3	Stokes 3-in.	MTR	76*	2	11	6-36	11	+1	25-45†	NT, QSU	21	1.4	4,A,E†
3	8cm GrW 34	MTR	81*	3	11	2-60	11	+1	35-45†	NT, QSU, s6, IR	26	1.2	4,A,E†
3	82mm BM obr. 37	MTR	82*	3	11	3-78	11	+1	39-45†	NT, QSU, s6, IR	26	1.3	4,A,E†
3	M1 81mm	MTR	81*	3	11	3-75	11	+1	11/43-3/45	NT, QSU, WP7	27	1.2	5,A,B
2	M2 4.2-in.	MTR	107†	2	11	14-100	10	+1	2/44-3/45	NT, QSU, WP9	25	1.4	5†,B
3	3.7cm PaK 35/36	AT	37L	3	11	120	12	+1	35-45†	NT, QSU	27	1.3	6,E†
3	M3A1 37mm	AT	37LL	2	11	292	12	+1	11/43-45†	NT, QSU, C7†[1]	27	1.2-1.5†	6†,C†[1]
2	37mm PP obr. 15R	ART	37*	3	*11*†	80	12	+1	25-45	NT, QSU, Low Ammo†, h-d	18	1.4	7†,B
2	Cannone da 70/15	ART	70*		*11*†	166	10	+1	25-45	NT, QSU, Acq. NA†, Low Ammo†, h-d	18	1.4	7†,A,B
3	7.5cm Krupp M08	ART	75*	1	11	204	8	0	25-45†	NT, QSU, s5, AP5, h-d	22	1.4	8,A,F†
3	Obice da 75/13	ART	75*	1	11†	206	10	+1	30-45†[1]	NT, QSU, h-d	22	1.5	8,A,D†,F†[1]
3	7.5cm leIG 18	ART	75*	2	11	115	10	+1	35-45†	NT, QSU, h-d	26	1.4-1.5†	9†
3	76.2mm PP obr. 27	ART	76*	2	11†	214	8	+1	39-45†[1]	NT,QSU, s6, AP6	27	1.4-1.5†[1]	9†[1],D†
4	M1A1 75mm Pack Howitzer	ART	75*	2	11	218	10	+1	3/42-45†	NT, QSU, WP7, C5†[1], h-d	27	1.6-1.3†	10†,A,C†[1]
2	7.7cm FK 16	ART	75	1	11	257	8	0	28-45†	NT, QSU, s5, AP6, h-d	23	1.4	11,F†
2	76.2mm P obr. 02/30	ART	76	1	11†	310	7	0	39-45†[1]	NT, QSU, s6, AP6, h-d	22	1.4	11,D†,F†[1]
2	OQF 18-Pounder	ART	84*	1	11	213	7	0	30-45	NT, QSU, s6, WP5, AP6, h-d	26	1.6	11,B
2	10.5cm leFH 16	ART	105*		11	230	7	0	28-45†	NT, s6, h-d	24	1.5-1.6†	12†,A
2	Cannone da 105/28	ART	105		11	330	6	−1	30-45†	NT, s6, AP5	25	1.5	12,F†
2	M2A1 105mm Howitzer	ART	105	1	11	286	7	0	6/44-3/45	NT, s6, WP7, C5†	29	1.5	12,B,C†
2	122mm G obr. 10/30	ART	122*	1	11†	223	8	0	39-45	NT, s6, h-d	29	1.5	13,B,D†
2	122mm G obr. 38	ART	122	1	11†	303	6	0	40-45	NT, s6	30	1.5	13,B,D†
2	Obice da 149/13	ART	150*		11	220	5	−1	28-45†	NT, s5, WP6[B]†, h-d[C]†	34	1.5-1.6†	14†
2	Oerlikon FF	AA	20L	3 (4)	11	125	12	+1	30-45	T, LF [NT, 20†, 2 ROF, B10]	26	1.4-1.5†[1]	15†[1],G†
2	Cannone-mitra. da 20/65	AA	20L	3 (4)	11†	138	11	+1	37-45	T, LF [NT, 20†[1], 2 ROF]	25	1.4-1.5†[2]	15†[2],D†,G†[1]
2	2cm FlaK 30	AA	20L	3 (4)	11	120	10	+1	37-45	T, LF [NT, 20†, 2 ROF, B10]	24	1.4-1.5†[1]	15†[1],G†
2	3.7cm FlaK 36 o. 37	AA	37L	3 (8)	11	164	8	0	37-45	T, AP6	22	1.5	16†,B
2	Bofors 40mm L/60	AA	40L	3 (8)	11	247	8	0	33-45†	T, LF [40†[1], 2 ROF], AP6	25	1.5-1.6†	16†,G†[1]
2	Bofors 75mm M29	AA	75L	2	11†		5	−1	33-45	T, LF [75†[1], 1 ROF, B10], AP6	27	1.6	17,B,D†,G†[1]
2	8.8cm FlaK 18	AA	88L	2	11†	370	4	−1	37-45	T, LF [88†[1], 1 ROF, B10], AP6	32	1.6	17,B,D†,G†[1]

NA" on the counter.

† Both the *70/15* and *PP obr. 15R* have a circled B# (*italicized* in the Listing), indicating that they suffer from Low Ammo (D3.71). This status can be negated only by SSR, an Ammo Vehicle (E10.1) or an Ammo Dump (E10.6).



8. *7.5cm Krupp M08 & Obice da 75/13:* The M1908 75mm mountain gun was one of several old Krupp artillery pieces used by the Nationalists, who even produced their own version of this particular model (one source states that in the 1930s up to 54 were built in Chinese arsenals). The game piece also represents other similar pre-WW1 guns acquired in fair numbers, such as the 76mm 00/02 P (Russian Ordnance Note 13) and the 75/27 (Italian Ordnance Note 9). China also purchased some 75/13 mountain guns (Italian Ordnance Note 8); this piece is equivalent in game terms to the Krupp 7.7cm C 96 nA employed by the Nationalists, and may also be used to represent the Bofors M34 mountain gun, "a batch" of which was obtained by the Nationalists. Chinese forces employed small amounts of captured Japanese mountain artillery as well. In mid 1942 the Nationalists possessed about 1,000 75mm guns and howitzers (probably inclusive of 76-77mm types as well).



9. *7.5cm leIG 18 & 76.2mm PP obr. 27:* A relatively large number of these infantry guns (German Ordnance Note 15 and Russian Ordnance Note 12) were supplied to the Nationalists, who used them primarily in the field artillery role. However, some infantry regiments—probably those in the elite divisions—did contain a company of (apparently two) 75mm pieces; and given the leIG 18's short range, it may have been the weapon of choice for this role. Chinese forces also employed small numbers of captured Japanese 70mm and 75mm infantry guns.

† Dates and RF for the use of these Guns in Burma are 3-5/42 (1.4) and 5/44-1/45 (1.5).



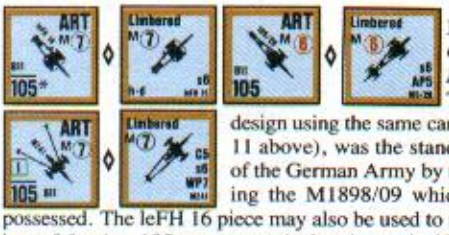
10. *M1A1 75mm Pack Howitzer:* By April 1942 the Chinese 5th Army in Burma had received about thirty U.S. pack howitzers, while others reached China at about the same time. By 1944 the M1A1 was the standard divisional artillery piece in X-Force and Y-Force, with 244 supplied to the latter and probably about sixty (taken from British Lend-Lease stocks) to the former. The divisional artillery of an X-Force division was a single battalion of horse-packed M1A1s. Y-Force pack-howitzer battalions were generally held at army (U.S. corps) level, and detached to divisions or regiments as the need arose. (Some of the Y-Force battalions were actually man-packed; i.e., the disassembled howitzers, along with their ammunition and other accoutrements, were carried by coolies.) In China, twenty-five pack howitzer battalions were available by early 1945 to the ALPHA (a U.S. training-and-equipment program) divisions.

† Dates and RF for use in Burma are 3-5/42 (1.4) and 1944-3/45 (1.3). For use in China they are 1942-6/44 (1.6) and 7/44-45 (1.5).



11. *7.7cm FK 16, 76.2mm P obr. 02/30 & OQF 18-Pounder:* The FK 16 was a Krupp-designed field gun (FK: *Feldkanone*) used by the Germans in the latter half of WW1, with 3,000+ being built from 1916 to 1918. The obr. 02/30 (Russian Ordnance Note 14) was an old Tsarist gun updated by the Soviets. Both types were purchased in relatively large numbers by the Nationalists. The FK 16 piece also represents the Canon de 75 mle 1897 (the famous "French 75"), used in small numbers. The 18pdr (British Ordnance Note 11) was the mainstay of British artillery in WW1; some (apparently only a few) were acquired by the Nationalists. Other (evidently 75mm) pieces employed by Nationalist forces were those of the Dutch firm Siderius. Whenever possible, Chinese forces also used captured Japanese field guns.

Almost all Chinese field artillery was organized into independent battalions and regiments controlled at army (U.S. corps) level or higher, and much of it was retained in the Central Artillery Reserve controlled by Jiang Kai-shek, who personally doled out guns as he saw fit (sometimes one or two at a time). An artillery battalion comprised two to three batteries of two to four guns each; at least in the early war years, a common battalion configuration was two 150mm and ten 75mm pieces. The total Nationalist artillery park in 1937-38 has been variously estimated at 800-1,000 guns. By Sept. 1943 the total was about 1,330.



12. *10.5cm leFH 16, Cannone da 105/28 & M2A1 105mm Howitzer:* The leFH 16, a Krupp design using the same carriage as the FK 16 (Note 11 above), was the standard light field howitzer of the German Army by the end of WW1, replacing the M1898/09 which the Nationalists also possessed. The leFH 16 piece may also be used to represent the small number of foreign 105mm mountain howitzers in Nationalist service.

The 105/28 (Italian Ordnance Note 13) was acquired by the Nationalists in relatively fair numbers—as was the leFH 18 (German Ordnance Note 20), which the 105/28 piece also represents. In addition, the Nationalists posessed a few 10cm K 18 (German Ordnance Note 21), 107mm P obr. 10/30 (Russian Ordnance Note 18), and 100/17 (Italian Ordnance Note 12), while both they and the Red Chinese captured a small number of Japanese 105mm howitzers. China's Chief of Ordnance stated in mid 1942 that his government's forces possessed a total of 91 105mm howitzers.

M2A1 howitzers (U.S. Ordnance Note 14) were supplied to X-Force, which used them in Burma. In addition, 157 were sent by aircraft (and, from the end of 1944, by truck) into China, but these apparently saw no action prior to the war's end.

† *leFH 16* RF for use in China is 1.5; Dates and RF for its use in Burma are 3-5/42 (1.6) and 5/44-1/45 (1.6).



13. *122mm G obr. 10/30 & G obr. 38:* The U.S.S.R. supplied war materiel to China from 1924 to 1927, then again from 1938 to mid 1941 (though in a steadily decreasing trickle after Zhukov's crushing victory over the Japanese at Nomonhan in mid 1939). Among the Soviet artillery types sent to the Nationalists were obr. 10/30 and obr. 38 122mm howitzers (Russian Ordnance Notes 19 and 20), both of which were provided in fair numbers. However, when the stream of supplies from the U.S.S.R. dried up, so did the source of ammunition for most Soviet weapons, leaving their usefulness severely handicapped.



14. *Obice da 149/13:* The Chinese government purchased a number of these howitzers (Italian Ordnance Note 14). The game piece also represents various other WW1-era heavy howitzers such as the Krupp sFH 13 and the M1918 155mm (U.S. Ordnance Note 17). The latter was supplied in small numbers to X-Force in Burma, where it was used by elements of the Chinese 12th Field Artillery Battalion. In China the Nationalists also employed some Japanese Year-4 Type 150mm howitzers, some imported and others captured, plus a few Soviet 152mm guns/howitzers. One source states that the first use of 150mm artillery by the Chinese during the War of Resistance (i.e., the 1937-45 Sino-Japanese conflict) occurred in the fighting around Taierzhuang (Tai-erh-chuang) in early 1938. China's Chief of Ordnance stated in mid 1942 that Nationalist forces possessed 60 howitzers of "6-in." caliber.

† WP is available only in scenarios set in Burma—as signified by the superscript "B". In scenarios set in China, this Gun may be towed only by a Wagon—as signified by "h-d^{C}".

† RF for use in China is 1.6. Dates and RF for use in Burma are 6/44-3/45 and 1.5.



15. *Oerlikon FF, Cannone-mitragliera da 20/65 & 2cm FlaK 30:* The Oerlikon was derived from a 1914 German design. Produced in Switzerland from 1921, it proved to be the first successful light AA gun and was sold in large numbers to armies and navies around the world. One customer was the government of China, which purchased 120 Oerlikons in 1929. The Italians too sold 20mm AA ordnance to China, theirs being the 20/65 (Italian Ordnance Note 17). At about the same time, the Nationalists began purchasing the FlaK 30 (German Ordnance Note 25) and also arranged with German firms to have production facilities for the gun set up in China. Yet another type of 20mm AA in Nationalist service was the Madsen M35 from Denmark. 20mm AA guns were often used in the AT role, as a supplement to the standard (but sometimes unavailable) 37mm AT gun. The Chinese also obtained 12.7-13.2mm AAMG from France, the U.S.S.R. and the U.S.A.

† Dates and RF for the use of these Guns in Burma are 3-5/42 (1.5) and 5/44-1/45 (1.5).



16. *3.7cm FlaK 36 o. 37 & Bofors 40mm L/60:* The famed Bofors gun was purchased from Sweden, and also from Hungary where a licensed version was produced; later more were obtained from the Soviet Union, Britain and the United States. X-Force in Burma contained a battalion of Bofors 40mm, but it probably saw little action in the ground combat role. About 1937 the Nationalist government bought a number of (one source suggests 36) FlaK 36 o. 37 guns from Germany; later it apparently also received 37mm guns from the U.S.S.R. and U.S.A. Yet another type used by the Nationalists was the static-mounted Vickers 40mm. AA guns were organized in independent battalions, with three batteries per battalion and four guns per battery.

† *Bofors* Dates and RF for use in Burma are 2/44-3/45 and 1.6.



17. *Bofors 75mm M29 & 8.8cm FlaK 18:* These two heavy AA guns were bought from Sweden and Germany respectively. Other such guns in Nationalist service were Vickers 75mm, Soviet 76mm and Czech 90mm. Heavy AA guns were emplaced around important cities and key installations; hence they probably saw little use in ground combat. One source states that the Nationalists possessed 32 75mm AA guns in 1937; another says they had 211 AA guns of all sizes in mid 1942.



CHINESE MULTI-APPLICABLE ORDNANCE NOTES

A. This weapon may be Animal-Packed (G10).

B. This Gun was used by the Chinese *only* in Burma [EXC: if "**B**" appears, it was *not* used by them in Burma.

C. 37mm canister has 12 FP. 75mm canister has 20 FP. 105mm FP has 24 FP.

D. This Gun's B# is "11" in scenarios set prior to 1941. In scenarios set in/after 1941 it has a circled B# treated as per D3.71, as signified by "B (11)+" (or "B (10)+" for certain LF Guns) on the counter. This circled B# status can be negated only by SSR, an Ammo Vehicle (E10.1) or an Ammo Dump (E10.6).

E. Dates for use in Burma are 3-5/42 and 5/44-1/45.

F. Dates for use in Burma are 3-5/42.

G. When using Limbered Fire, the Barrel Length modification (C4.1) on the counter's LF side is used for TH purposes but the AP Basic TK# is still determined using the Caliber Size and Length printed on the unlimbered side.

G.M.D. CHINESE ELR CHART[a]

thru 1938	1939-43	1-6/44	7/44-45
2[b]	1[b]	2	2[c]

[a]: Red Chinese use is NA.

[b]: Increase this # by one if G.M.D. Majority Squad Type (E.4) is Elite.

[c]: Increase this # by one if G.M.D. Majority Squad Type (E.4) is Elite, and/or by one if scenario is set in Burma.

G.M.D. CHINESE ARMOR LEADER AVAILABILITY DRM[a]

thru 1943	1944	1945
+3	+2[b]	+1

[a]: Red Chinese use is NA.

[b]: Decrease this # by one if scenario is set in Burma.

CHINESE SW ALLOTMENT CHART[1]

	LMG	MMG	HMG	.50-cal HMG	LT. MTR	ATR	BAZ 43	FT[2]	DC[2]
1937	9	16	21	40	11[3]	—	—	—	2
1938	10	17	22	43	12[3]	—	—	—	2
1939-41[4]	12	19	25	45	14[3]	—	—	—	2
42-10/43	11	18	23	42	13[3]	—	—	—	2
11/43-45[5]	10/5	17/15	22/10	35/35	12[3]/7[6]	–/12	–/9[7]	–/2	2/1
# In Game	*10*	*6*	*4*	*2*	*22*	*4*	*4*	*4*	*6*

[1]: SW allotted according to Equivalent number of squads.

[2]: Allotted according to Equivalent number of Assault Engineer squads; see 1.22.

[3]: Make a single DR on the appropriate (for the scenario date) following table; the Final DR determines the *one (only)* type of light mortar allotted. A −2 DRM applies if the G.M.D. Majority Squad Type (E.4) is Elite, or a +2 if it is Conscript. A Red Chinese Majority Squad Type may always choose 50mm(j) mortars in lieu of the DR-chosen type.

1937		1938		1939-42	
Final DR	MTR Type	Final DR	MTR Type	Final DR	MTR Type
≤8	50mm(g)	≤7	50mm(g)	≤6	50mm(g)
≥9	45mm	8-10	45mm	7-8	50mm(r)
		11	50mm(j)	9	45mm
		≥12	40mm	10	50mm(j)
				≥11	40mm

1943-44		1945	
Final DR	MTR Type	Final DR	MTR Type
≤3	60mm	≤5	60mm
4-6	50mm(g)	6-7	50mm(g)
7-8	50mm(r)	8	50mm(j)
9	50mm(j)	9-10	50mm(r)
10	45mm	11	45mm
≥11	40mm	≥12	40mm

[4]: Red Chinese use the 1939-41 line regardless of scenario date.

[5]: Number to right of "/" in this line is for use with the Equivalent number of 5-3-7 squads *only*; number to left of "/" is for use with other G.M.D. squad types.

[6]: This # is for allotment of 60mm mortars only (i.e., note 3 above does not apply). Each three 60mm received may be exchanged for an OBA module as per U.S. Ordnance Note 1 and G17.5.

[7]: Only BAZ 43 are allotted, regardless of scenario date.

G.M.D. CHINESE OBA AVAILABILITY CHART[1]

YEAR	1937	1938	1939-41	1942-10/43	11/43-45 China[2]	11/43-45 Burma[2]
DR: 2 / BPV:	100+ 67 s	150+ 100 s	150+ 100 s	150+[3] 100 s	150+ 100 s	150+ 100 s
3	100+ 65	150+ 98	150+ 98	150+[3] 98	150+ 98	150+ 98
4	80+ 55 s*	100+ 67 s	100+ 67 s	100+ 67 s	100+ 67 s	100+ 65
5	80+ 52	80+ 52	80+ 52	80+ 52	80+ 52	80+ 52
6	80+ 52	80+ 52	80+ 52	80+ 52	80+ 52	80+ 55 W
7	80+ 55 s*	80+ 55 s*	80+ 55 s*	80+ 55 s*	80+ 55 s*	80+ 55 W
8	70+ 41 s	70+ 41 s	70+ 41 s	70+ 41 s	70+ 41 s	70+ 42 W
9	70+ 39	70+ 39	70+ 39	70+ 39	70+ 39	70+ 39
10	70+ 39	70+ 39	70+ 39	70+ 39	70+ 39	100+ 70 S
11	70+ 39	70+ 39	120+ 80 s	70+ 39	70+ 39	70+ 42 W
12	70+ 39	70+ 39	70+ 39	120+[3] 80 s	120+ 80 s	150+ 103 S
MAX. BPV:[4]	89	133	133	133	133	137

[1]: All BPV listed are for normal ammo. As per G18.42 and G18.82, if current G.M.D. Majority Squad Type is 3-3-7 or 3-3-6, decrease BPV by ½ (FRD); if current G.M.D. Majority Squad Type is 5-3-7, increase BPV by ½ (FRD).

[2]: Use the appropriate column as determined by the G18.82 dr.

[3]: China only. Treat as "70+" (BPV: 41 s) for scenario set in Burma.

[4]: The #s in this line are the maximum BPV for a 5-3-7 Majority Squad Type (see note 1 above).

[5]: Can fire Smoke but not WP.

S: Can fire SMOKE.

M: Can fire WP but not Smoke.

*: Can fire IR (E1.93).

G.M.D. CHINESE AIR SUPPORT AVAILABILITY TABLE[a]

1937	1938	1939	1940-41	1942-43	1944	1945
5[2]	4[2]	3[1]	2[1]	3[1]	4[2]	5[3]

[a]: Red Chinese use is NA.

CHINESE VEHICLE RARITY FACTOR CHART

.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6

NAME	37	38	39	40	41	1942 J	F	M	A	M	J	J	A	S	O	N	D	1943 J	F	M	A	M	J	J	A	S	O	N	D	1944 J	F	M	A	M	J	J	A	S	O	N	D	1945 J	F	M	A	M	J	J	A	NAME
VCL M1931(b) [China]																																																VCL M1931(b) [China]
L3/35(i) [China]																																																L3/35(i) [China]
PzKpfw IA(g) [China]																																																PzKpfw IA(g) [China]
Vickers 6-Ton Mk E(b) [China]																																																Vickers 6-Ton Mk E(b) [China]
T-26TU M33(r) [China]																																																T-26TU M33(r) [China]
[Burma]																																																[Burma]
M3A3(a) [Burma]																																																M3A3(a) [Burma]
M4A4(a) [Burma]																																																M4A4(a) [Burma]
M3A1(a) [Burma]																																																M3A1(a) [Burma]
Stuart Recon(a) [Burma]																																																Stuart Recon(a) [Burma]
Type 22 [China]																																																Type 22 [China]
PSW 221(g) [China]																																																PSW 221(g) [China]
PSW 222(g) [China]																																																PSW 222(g) [China]
BA-20(r) [China]																																																BA-20(r) [China]
BA-6(r) [China]																																																BA-6(r) [China]
VCL Mk VI Carrier(b) [China]																																																VCL Mk VI Carrier(b) [China]
Carrier A(b) [China]																																																Carrier A(b) [China]
[Burma]																																																[Burma]
Carrier B(b) [China]																																																Carrier B(b) [China]
[Burma]																																																[Burma]
Carrier C(b) [China]																																																Carrier C(b) [China]
[Burma]																																																[Burma]
Henschel 33(g) [China]																																																	Henschel 33(g) [China]
[Burma]																																																[Burma]
Jeep(a) [China]																																																	Jeep(a) [China]
[Burma]																																																[Burma]
2½-Ton(a) [China]																																																2½-Ton(a) [China]
[Burma]																																																[Burma]
NAME	37	38	39	40	41	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	NAME
						1942												1943												1944												1945								

.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6

CHINESE ORDNANCE RARITY FACTOR CHART

.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6

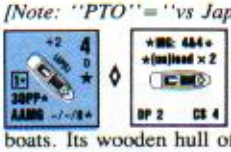
NAME	37	38	39	40	41	1942 J	F	M	A	M	J	J	A	S	O	N	D	1943 J	F	M	A	M	J	J	A	S	O	N	D	1944 J	F	M	A	M	J	J	A	S	O	N	D	1945 J	F	M	A	M	J	J	A	NAME
Stokes 3-in. [China]																																																Stokes 3-in. [China]
[Burma]																																															[Burma]
8cm GrW 34 [China]																																															8cm GrW 34 [China]
[Burma]																																															[Burma]
82mm BM obr. 37 [China]																																															82mm BM obr. 37 [China]
[Burma]																																															[Burma]
M1 81mm [Burma]																																															M1 81mm [Burma]
M2 4.2-in. [Burma]																																															M2 4.2-in. [Burma]
3.7cm PaK 35/36 [China]																																															3.7cm PaK 35/36 [China]
[Burma]																																															[Burma]
M3A1 37mm [China]																																																M3A1 37mm [China]
[Burma]																																															[Burma]
37mm PP obr. 15R [China]																																															37mm PP obr. 15R [China]
Cannone da 70/15 [China]																																															Cannone da 70/15 [China]
7.5cm Krupp M08 [China]																																															7.5cm Krupp M08 [China]
[Burma]																																															[Burma]
Obice da 75/13 [China]																																															Obice da 75/13 [China]
[Burma]																																															[Burma]
7.5cm leIG 18 [China]																																															7.5cm leIG 18 [China]
[Burma]																																															[Burma]
76.2mm PP obr. 27 [China]																																															76.2mm PP obr. 27 [China]
[Burma]																																															[Burma]
M1A1 Pack Howitzer [China]																																															M1A1 Pack Howitzer [China]
[Burma]																																															[Burma]
7.7cm FK 16 [China]																																															7.7cm FK 16 [China]
[Burma]																																															[Burma]
76.2mm P obr. 02/30 [China]																																															76.2mm P obr. 02/30 [China]
[Burma]																																															[Burma]
OQF 18-Pounder [China]																																															OQF 18-Pounder [China]
10.5cm leFH 16 [China]																																															10.5cm leFH 16 [China]
[Burma]																																															[Burma]
Cannone da 105/28 [China]																																															Cannone da 105/28 [China]
[Burma]																																															[Burma]
M2A1 105mm Howitzer [Burma]																																															M2A1 105mm Howitzer [Burma]
122mm G obr. 10/30 [China]																																															122mm G obr. 10/30 [China]
122mm G obr. 38 [China]																																															122mm G obr. 38 [China]
Obice da 149/13 [China]																																															Obice da 149/13 [China]
[Burma]																																															[Burma]
Oerlikon FF [China]																																															Oerlikon FF [China]
[Burma]																																															[Burma]
Cannone-mitr. da 20/65 [China]																																															Cannone-mitr. da 20/65 [China]
[Burma]																																															[Burma]
2cm FlaK 30 [China]																																															2cm FlaK 30 [China]
[Burma]																																															[Burma]
3.7cm FlaK 36 o. 37 [China]																																															3.7cm FlaK 36 o. 37 [China]
Bofors 40mm L/60 [China]																																															Bofors 40mm L/60 [China]
[Burma]																																															[Burma]
Bofors 75mm M29 [China]																																															Bofors 75mm M29 [China]
8.8cm FlaK 18 [China]																																															8.8cm FlaK 18 [China]
NAME	37	38	39	40	41	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	NAME
						1942												1943												1944												1945								

.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6

H109

LANDING CRAFT NOTES

[Note: "PTO" = "vs Japanese"]



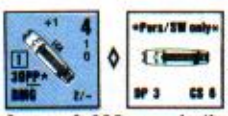
1. *LCP(L):* The Landing Craft, Personnel (Large), built by the Higgins Company of New Orleans (hence its nickname of "Higgins boat"), was an adaptation of one of its standard motor boats. Its wooden hull offered little protection beyond that provided by three armored transverse bulkheads. 2,193 LCP(L) were manufactured between 1940 and 1942. Following it in production was the LCP(R), which differed by having a narrow bow ramp (reportedly inspired by a photograph of a Japanese Daihatsu LC). 2,631 LCP(R) were built in 1942-43. The early-war U.S.M.C. designations for the LCP(L) and LCP(R) were T-Boat and TP-Boat, respectively. In U.S. service, LCP were usually transported aboard APD (high-speed destroyer-transports), APA (attack transports) and AKA (attack cargo ships).

The British received 500 LCP(L) and 600 LCP(R), the vast majority through Lend-Lease. However, 400 of the British LCP(L) comprised the initial production run which lacked the armored bulkheads and MG positions present in the later (U.S.) version. British LCP were generally transported aboard various types of LSI (Landing Ship, Infantry).

As fully armored LC became more widely available, most LCP(L) were relegated to use as command/guide boats.

† In British use the LCP(L) is considered completely unarmored and unarmed (but still has an Inherent crew). BPV for this version is "8".

† Dates and RF for British use are 5-12/40 (1.1), 1941 (1.0), 1942-6/43 (.9), 7/43-5/44 (1.2), and 6/44-5/45 (1.4) [EXC: PTO use is limited to Burma and 1944-45 (1.2)]. Dates and RF for U.S. use are 11/42-6/43 (.9) and 7-12/43 (1.0) [EXC: for PTO use they are 8/42-5/43 (.9) and 6-12/43 (1.0)].



2. *LCA:* The Landing Craft, Assault, was a British design that entered production in 1939. Constructed of wood covered over by armor plating, it became the standard infantry LC of British forces; 2,030 were built (including 50+ in India) before production ended in 1944. The original designation of ALC was changed to LCA in 1942. Although slower than the LCVP (its American counterpart), the LCA had better armor protection including a partial roof over the passenger compartment. Small numbers of LCA were used by U.S. troops (especially Rangers) in the North African, Mediterranean and European theaters from the time of Operation Torch through the Normandy assaults. One source states that 486 LCA were available to Allied forces for the Normandy landings, while another says the British had 448 and the U.S. 54.

† Contrary to G12.41, the LCA may carry only Personnel/SW as Passengers despite its having a ramp. This is signified by "Pers/SW only" on the counter.

† Each Indirect-Fire hit vs an LCA, as well as each attack vs an LCA which treats it as unarmored, has its *Collateral-Attack* FP halved (cumulative with all other applicable modifications, including the halving of FP specified in G12.672).

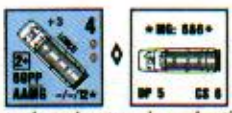
† Dates and RF for British use are 5/40-5/45 and .9 [EXC: PTO use is limited to Burma and 1944-1/45 (.9)]. Dates and RF for U.S. use are 11/42-6/44 and 1.3 [EXC: PTO use is NA].



3. *LCVP:* The original U.S. design for a LC capable of carrying a light vehicle was the LCV (Landing Craft, Vehicle), 2,366 of which were constructed in 1942. However, being both unarmed and unarmored, it was quickly succeeded by a much improved version, the Landing Craft, Vehicle Personnel. Both were of wooden construction (with armor plates added on the LCVP), and were built by Higgins of New Orleans. With 23,358 produced from 1942, the LCVP rapidly supplanted the LCV and LCP(L). 400 LCVP (and 300 LCV) were Lend-Leased to the British. 839 LCVP were available to the Allies for the Normandy landings. Many different ship types (e.g., APD, AKA, LST, LSD and LSV) were used to transport LCV and LCVP. Use of the LCVP in scenarios set prior to 6/43 actually represents the LCV.

† For use in a scenario set prior to 6/43, the LCVP is considered completely unarmored and unarmed (but still has an Inherent crew). BPV for this version is "11".

† Dates and RF for U.S. use are 11/42-6/43 (1.0) and 7/43-5/45 (.9) [EXC: for PTO use they are 8/42-5/43 (1.0) and 6/43-45 (.9)]. Dates and RF for British use are 11/42-6/43 (1.2) and 7/43-5/45 (1.3) [EXC: for PTO use in other than Burma they are 9/43-7/45 (.9); for Burma they are 1944-1/45 (1.3)].



4. *LCM(3):* The Landing Craft, Mechanized (Mark 3), was one in a series of vessels whose concept originated with the British MLC(1), which was designed specifically to carry a light tank and entered production in 1939 (the designation was changed to LCM in 1942). Some 600 LCM(1) were built through 1944, and saw active service throughout the war. The LCM(2), an adaptation of a shallow-draft river tug, was built by Higgins of New Orleans—but only 147 of this mark were produced. Next came the LCM(3), also built (in the main) by Higgins but based on British ideas for carrying a medium tank. With 861 constructed in 1942-44, it was the most numerous version and saw widespread service. U.S. LCM were generally transported aboard APA, AKA and LSD. 650 LCM(3) were Lend-Leased to the British. In the Royal Navy, some LSI could carry one or two LCM, but a number of ships were converted to LCM carriers (designated LSS, LSC or LSG depending on the type of ship used). 358 LCM(3) and 128 LCM(1) were available to the Allies for the Normandy landings.

† For British use in a scenario set prior to 11/42, the LCM(3)'s Passenger capacity is "49PP"—and its two MG (see Note B below) are *not* 12.7mm, each has a FP of "2", and the MA ROF is "1" (B12, as well as LC Notes B and C, still apply otherwise); BPV for this version is "20". For U.S. use in a scenario set prior to 11/42, the LCM(3)'s Passenger capacity is "49PP"; BPV for this version is "26".

† Dates and RF for British use are 5/40-5/45 and 1.1 [EXC: for PTO use in other than Burma they are 9/43-7/45 (1.2); for Burma use they are 12/44-1/45 (1.1)]. Dates and RF for U.S. use are 11/42-6/43 (1.1) and 7/43-5/45 (1.0) [EXC: 8/42-45 and 1.0 for PTO use].



5. *LCI(S):* The Landing Craft, Infantry (Small), was designed and built in Britain, and was intended mainly for raiding operations. It was of wooden construction with a covering of armor plates. No more than a hundred (and perhaps as few as forty) were built, all in 1943. The hold of the LCI(S) was completely decked-over; passengers exited troop compartments to topside, then disembarked down four gangplanks pushed out over the bow as the vessel beached. LCI(S) carrying Royal Marines were in the forefront of the landings in Normandy and on Walcheren Island—unlike the much larger (and more common) LCI(L), which were generally not used in the initial waves if opposition was expected. 39 LCI(S) were available for the Normandy landings.

† The AAMG FP actually represents two 2-FP MG. This is signified by "MG: 2&2" on the counter. Each has an eight-hex Normal Range and its own 360° field of fire. Each malfunctions, and is repaired or disabled, independently of the other. Scrounging may result in the creation of one or two British LMG as per D10.5. For the 20L MA, see Note E below.

LANDING CRAFT LISTING

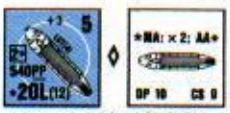
#	Name	BPV	RF	Dates	Size	AF	TA	OT	DP	CS	MP	Bog	GT	MA	ROF (IFE)	B#	BMG	AAMG	Ramp	PP	Notes
12	LCP(L)	14†	.9-1.4†	5/40-45†	0	0/★		•†¹	2	4	4	+2		AAMG†	1†²	†²		8†³		30	1†,A†¹,B†³,C†²,D
12	LCA	17	.9-1.3†	5/40-45†	0	1/0†		•	3	6	4	+1		BMG	1		2		•†	39†	2†
12	LCVP	19†	.9-1.5†	8/42-45†	−1	0†		•	3	5	5	+2		AAMG†	1†¹	†¹		8††²	•	39	3†,B†²,C†¹
6	LCM(3)	29†	1.0-1.1†	5/40-45†	−2	0		•	5	6	4	+3		AAMG†	2††¹	†¹		12††²	•	69†	4†,B†²,C†¹
2	LCI(S)	52	1.3	44-5/45†	−3†¹	2/0	−F/+SR		14	10	7	+3	T†²	20L†²	2†³ (12)†²	†³		†²;4†	†	114†	5†,C†³,D,E†²,F†¹,G
2	LCT(4)	117†	1.5-1.2†	41-45†	−4†¹	1/0	+SR	•	10	9	5	+3	T†²	20L†²	2†³ (12)†²	†³		†²	•	540†	6†,C†³,E†²,F†¹,G
9	Daihatsu	21	.9	35-45	−1	1/★		•†¹	3	4	4	+2		AAMG†	1	11		4†	•	69	7†,A†¹
9	Shohatsu	13	1.2	37-45	0	0/★		•†	2	3	4	+1		BMG	1	11	2			39	8†,A†,D

DP: Damage Point rating (G12.601) **Bog:** Bog DRM (G12.21) **Ramp:** "•" signifies presence of Ramp (G12.41)



† Passengers aboard the LCI(S) remain in a Cloaking Box even when their LC is Beached; when they expend MF to unload (see also Note D below), they appear onboard already unloaded (the reverse of this applies when they load). When an LCI(S) is Beached *across a hexside that lies within its VCA*, Passengers (un)load from/onto it across that hexside (despite its having no ramp).

† PTO use is NA.



6. *LCT(4):* The Landing Craft, Tank (Mark 4) was, like its predecessors the Marks 1-3, designed and built by the British. Prior to early 1942 these craft were designated TLC. 865 LCT(4) were constructed in 1942-45, making it the second most numerous mark of LCT. It was the largest of all wartime LCT in terms of payload capacity, being able to carry six Churchill tanks or nine Shermans or 350 short tons of cargo. 768 standard LCT were available to the Allies for the Normandy landings, plus another 105 converted to specialist roles. For the Normandy invasion the British planned to land their specialized armor (Crabs, Crocodiles and AVRE) in LCT right at H-Hour—five minutes after DD tanks launched from other LCT were to have reached the shore, and seven minutes before the first infantry wave was to arrive.

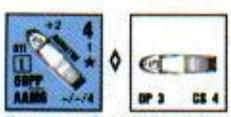
Two types of U.S. LCT were used operationally during the war: the Mark 5 (500 built in 1942-43 of which 159 were Lend-Leased to the British), and the Mark 6 (964 built in 1943-44 with only two Lend-Leased to Britain). However, unlike the British, the Americans generally did not include LCT in the initial waves if they knew the landing would be opposed, preferring instead to use LCM carrying individual tanks.

LCT were capable of travel on the open sea, but had a fairly short range. Several could be carried fully laden in the hold of an LSD (Landing Ship, Dock). The LCT(5) was designed to be transported on the deck of an LST (Landing Ship, Tank), and was unloaded by listing the LST 11° which enabled the LCT to slide off into the water.

† For British use in a scenario set prior to 7/43, and for *all* U.S. use, the LCT(4)'s Passenger capacity is "330PP". BPV for this version is "82".

† Contrary to G12.421-.43, items in an LCT(4)'s Infantry Stack (G12.151) may unload despite the presence of any vehicle(s)/non-burning-wreck(s) aboard it, provided its Vehicle Stack currently comprises < 50% of its total Passenger capacity *and*, if that Vehicle Stack contains > one vehicle/wreck, no wreck or Immobile vehicle is the topmost non-Gun ⅝" counter in that Vehicle Stack. Any burning Passenger wreck aboard the LCT would still restrict (un)loading as per G12.44.

† Dates and RF for British use are 1941 (1.5), 1942-6/43 (1.3), and 7/43-5/45 (1.2) [EXC: for use in Burma they are 12/44-1/45 (1.3); for PTO use in other than Burma they are 5-7/45 (1.3)]. Dates and RF for U.S. use are 7/43-5/44 (1.4), 6/44 (1.3), and 7/44-5/45 (1.4) [EXC: for PTO use they are 1943-45 (1.5)].



7. *DAIHATSU:* Appearing in 1935 in response to a requirement of the Imperial Army, the Daihatsu was the world's first ramped landing craft. Its design was based on that of the traditional Japanese fishing boat. Several different versions, differing slightly in length, speed, armament and capacity, were ultimately built for the Army and Navy (hence the game piece is a generic version). Daihatsu were by far the most common type of Japanese LC, with apparently at least 5,000 built. Some were converted to river gunboats, particularly for use in China. U.S. Intelligence referred to the Daihatsu as the Type A landing craft. They were generally transported stacked on the decks of converted merchant ships, and set into the water by cargo booms.

† The AAMG may fire only at a target that lies within the Daihatsu's rear/port-side Target Facing.



8. *SHOHATSU:* This LC was a steel-hulled motor launch with a low armored shield across the front of the passenger compartment. U.S. Intelligence called it the Type B landing craft. Shohatsu were presumably carried to the landing site slung from the davits of troop transports.

† Shohatsu Passengers *cannot* be BU—as signified by "PRC BU NA" on the counter. Hence they are Vulnerable through their LC's front Target Facing in the same manner as any non-BU Passenger of an OT AFV (including use of the +2 CE DRM if otherwise applicable). G12.124 applies unchanged, however.

LANDING CRAFT MULTI-APPLICABLE NOTES

A. This LC is OT (like an AFV) through its front (i.e., armored) Target Facing.

B. The AAMG FP actually represents two 4-FP MG [EXC: that of the LCM(3) represents two 6-FP .50-cal HMG]. This is signified by "MG: 4&4" (or "MG: 6&6") on the counter. Each has a 360° field of fire and eight-hex Normal Range. See also Note C below. The last sentence of F.9 applies for Scrounging purposes (and the D10.5 dr determines if one or two LMG are Scrounged).

C. Whichever of the two weapons eligible to be MA fires *first* in a phase is considered the MA for both that attack and the remainder of that phase (treating Defensive First and Final Fire as one phase). If both fire as a FG, only one can be considered MA (and thus might retain Multiple ROF); if one of them in that FG malfunctions, determine randomly whether or not it was the one considered MA for that phase. Each of the two weapons malfunctions, and is repaired or disabled, independently of the other.

D. Since this LC has no ramp, as per G12.41 the normal cost to (un)load Passengers is 50% of its MP allotment and two MF for the Personnel—as signified by "(un)load×2" on the counter. However, this does *not* further increase the G13.731 cost to (un)load Passengers at a pier.

E. The MA is actually two 20L AA, each with 6 IFE and AA capability—as signified by "MA:×2; AA" on the counter. Each 20L has a 360° field of fire and 16-hex IFE Normal Range. However, neither 20L may fire at a target that lies within the LC's front Target Facing and/or in/adjacent-to the LC's hex unless that target is at a higher level than the LC. Each 20L maintains its own separate TCA [EXC: whenever the LC itself receives a *turret* hit, both of its TCA are considered to *coincide with its VCA* for the determination of the Target Facing that was hit]. See also Note C above.

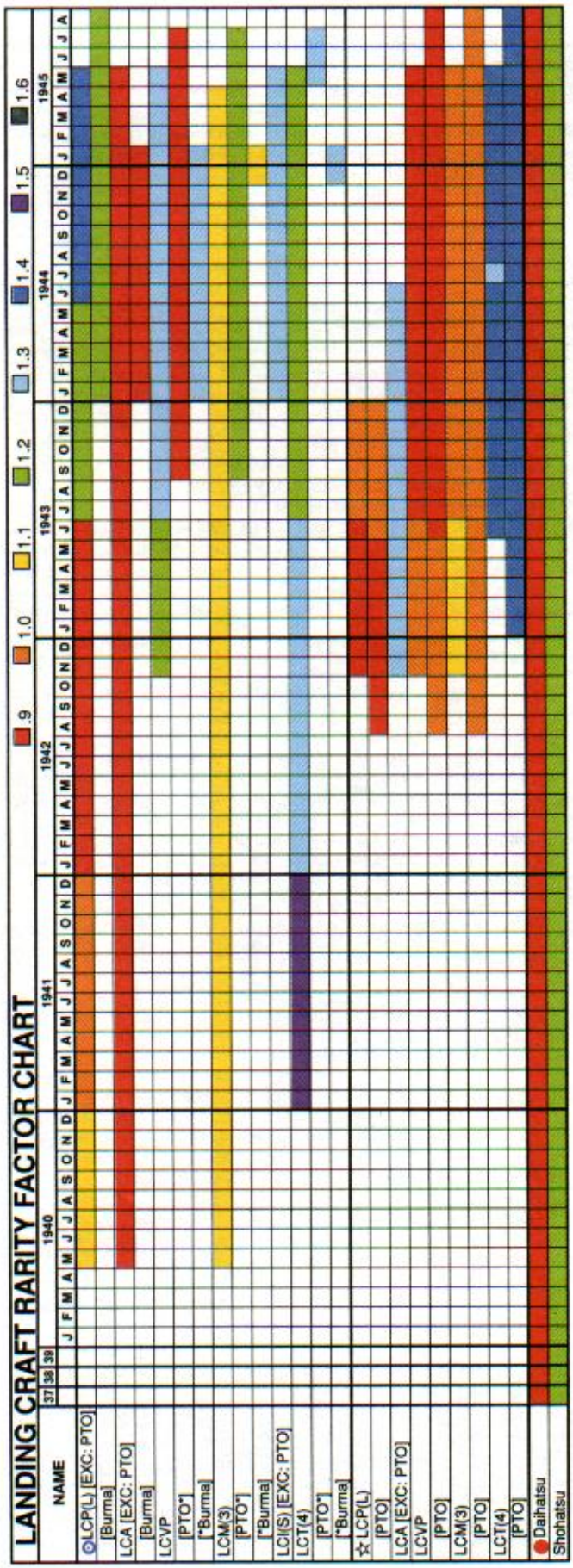
EX: Ordnance lying within the VCA of an LCI(S) achieves a turret hit on the LC. Even if neither of the LC's TCA coincide with its VCA, that hit will be resolved as a hit on the front Target Facing of the turret.

F. The −3 Target Size of the *LCI(S)* is indicated by one red dot, and the −4 Target Size of the *LCT(4)* is indicated by two red dots, beneath the two red Armor Factors on its counter.

Due to its large size, this LC is considered a one-level *obstacle* to LOS through its hex across two hexsides (of its hex) that lie within its *side* Target Facing. This applies at all times; i.e., regardless of whether or not the LC is Non-Stopped/(un)Beached/Immobile/a-wreck.

Any unit that enters this LC's Location, but does not become PRC aboard it, may exit that Location during the same phase only across a hexside on the same (port or starboard) side of that LC as the hexside that unit crossed when it entered the Location.

G. Whenever this LC's Inherent crew suffers a Stun result, its owner makes a subsequent dr. If this dr is ≤ 4 the LC neither ends its MPh, nor changes its VCA randomly, as would otherwise be mandated by G12.111. This LC also receives an extra −1 DRM to its G13.442 (un)Beaching DR.



U.S.M.C. RIFLE/BAR SQUAD SW ALLOTMENT CHART[1]									
	LMG	MMG	HMG	.50-cal HMG	M2 LT. MTR[2]	ATR	BAZ	FT[3]	DC[3]
5/42	—	12	20	24	—	—	—	—	2
6-11/42	—	9	6	26	12	—	—	—	2
12/42-10/43	—	5	8	18	9	—	—	4[4]	1
11/43-3/44	—	5	8	18	9	—	10	2	1
4/44-45	—	5	5	20	7	—	8	4[5]	2[5]
# In Game	5[6]	9[7]	8[8]	6[7]	8[7]	3[6]	*8/15/9*[9]	8[8]	*13*[8]

[1]: SW allotted according to Equivalent number of U.S.M.C. rifle/BAR squads only; see G17.11.

[2]: Each three received may be exchanged for an OBA module as per U.S. Ordnance Note 1 and G17.5.

[3]: Allotted according to Equivalent number of U.S.M.C. Assault Engineer squads only; see 1.22.

[4]: NA prior to 1943.

[5]: Allotted according to Equivalent number of *all* U.S.M.C. 7-6-8 squads; see G17.151.

[6]: Total provided in *GUNG HO*.

[7]: Total provided in *YANKS/PARATROOPER*.

[8]: Total provided in *GUNG HO, YANKS/PARATROOPER*.

[9]: Total provided in *YANKS/PARATROOPER*. 1943/44/45 models respectively.

U.S.M.C. DEFENSE BN. SW ALLOTMENT CHART[1]									
	LMG	MMG	HMG	.50-cal HMG	M2 LT. MTR	ATR	BAZ	FT	DC
12/41-43	—	—	5	7	—	—	—	—	—

[1]: SW allotted according to Equivalent number of Defense Battalion squads (G17.11) only.

U.S.M.C. PARA/RAIDER SQUAD SW ALLOTMENT CHART[1]									
	LMG	MMG	HMG	.50-cal HMG	M2 LT. MTR	ATR	BAZ	FT	DC
8/42-43	5[2]	6[3]	—	—	6[4]	12[3]	8[5]	—	1[6]

[1]: SW allotted according to Equivalent number of Paramarine/Raider squads (G17.111) only.

[2]: Allotted according to Equivalent number of Paramarine squads (G17.111) only.

[3]: Allotted according to Equivalent number of Raider squads (G17.111) only.

[4]: Each three received may be exchanged for an OBA module as per U.S. Ordnance Note 1 and G17.5.

[5]: NA prior to 11/43.

[6]: Allotted according to Equivalent number of Paramarine/Raider Assault Engineer squads; see 1.22 and G17.151.

U.S.M.C. OBA AVAILABILITY CHART[1]						
YEAR		8-10/42	11/42-10/43	11/43-6/44	7-12/44	1945
DR: 2 BPV:		100+ 158 S	150+ 236 W	150+ 236 W	150+ 236 W	100+R 53
	3	100+ 158 S	100+ 158 S	100+ 158 S	150+ 236 W	150+ 236 W
	4	70+ 95 W	100+ 158 S	100+ 158 S	100+ 158 S	150+ 236 S
	5	70+ 95 W	70+ 95 W	100+ 158 S	100+ 158 S	100+ 158 S
	6	80+M 131 W	80+M 131 W	80+M 131 W	80+M 131 W	80+M 131 W
	7	80+M 131 W	80+M 131 W	80+M 131 W	80+M 131 W	80+M 131 W
	8	80+M 131 W	80+M 131 W	80+M 131 W	80+M 131 W	80+M 131 W
	9	70+ 95 W	70+ 95 W	70+ 95 W	100+ 158 S	100+ 158 S
	10	70+ 95 W	70+ 95 W	70+ 95 W	70+ 95 W	100+ 158 S
	11	70+ 95 W	70+ 95 W	70+ 95 W	70+ 95 W	100+ 158 S
	12	70+ 95 W	70+ 95 W	70+ 95 W	70+ 95 W	70+ 95 W
MAX. BPV:		158	236	236	236	236

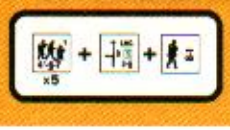
[1]: All BPV are for plentiful ammo. Decrease BPV by 10% (FRD) for normal ammo, or by 25% (FRD) for scarce ammo.

M: Battalion mortar OBA (C1.22).

R: Rocket OBA (C1.9).

S: Can fire SMOKE.

W: Can fire WP but not Smoke.



H
FRENCH VEHICLE NOTES

In 1921, all aspects of French tank design, development and use were given to the Infantry arm, which saw close support of the foot soldier as the true function of armor. To this end, various types of light, medium and heavy *chars* ("tanks") were developed throughout the '20s and '30s. In 1931 a separate tank arm for the Cavalry was created—but its tracked AFV, like its armored cars, were required to be designated *automitrailleuses* ("machinegun cars") since legally only the Infantry could possess *chars*. This separation (which also existed in the U.S. Army at the time) led to much duplication of effort and ultimately to the fielding of many different designs. (In May 1940, no less than nine different basic tank types—excluding the FT-17—were in French service.) In 1935 this distinction was finally dropped, and all new tanks were called *chars* regardless of whether intended for infantry or cavalry use.

French infantry tanks, though well-armored, were generally slow with a short radius of action, and the lighter models carried a small-caliber low-velocity gun with a limited supply of AP ammunition—all of which belied their role of support for the foot soldier. Moreover, the use of one-man turrets and poor or no radio equipment made all French tanks tactically clumsy and inefficient. On the other hand, they were usually well-built, and the newer, larger tanks had guns with better anti-tank performance than those of the Germans. Despite the fact that France's first divisional-sized armored unit—the 1st DLM—was created a year before the appearance of the first panzer division, the defensive-minded French failed to grasp the striking power of combined-arms tank formations used *en masse*. When the Germans launched their attack with approximately 2,500 tanks (of which only about 1,000 had a gun of ≥ 37mm) concentrated in ten panzer divisions, the 3,132 French tanks (excluding FT-17) opposing them were spread out among 30+ independent tank battalions and companies, three DCR (plus a fourth in the process of creation), three DLM and five DLC. To make matters worse, these tank units were themselves dispersed more or less all along the front. In the end, the Germans' advantages in tactics, organization and experience proved stunningly decisive despite both their inferiority in number of tanks (not even counting the 300 British tanks in France at that time) and the gun/armor superiority of certain Allied models.

For the sake of brevity, the following French acronyms are used herein:

BCC (*Bataillon de Chars de Combat*): tank battalion

BCP (*Bataillon de Chasseurs Portés*): mechanized infantry battalion of DCR

BDAC (*Batterie Divisionnaire Antichar*): divisional 47mm or 75mm anti-tank battery

BFL (*Brigade Française Libre*): Free French brigade

CA (*Compagnie d'Accompagnement*): support company of (motorized) infantry battalion

CACC (*Compagnie Autonome de Chars de Combat*): independent tank company

CDAC (*Compagnie Divisionnaire Antichar*): divisional 25mm anti-tank company of (motorized) infantry division

CE (*Compagnie d'Engins*): heavy-weapons company of BCP

DB (*Division Blindée*): Free French armored division

DCR (*Division Cuirassée*): armored division

DIM (*Division d'Infanterie Motorisée*): motorized infantry division

DLC (*Division Légère de Cavalerie*): light cavalry division

DLM (*Division Légère Mécanique*): light mechanized division

EDAC (*Escadron Divisionnaire Antichar*): divisional 25mm anti-tank squadron of DLC or DLM

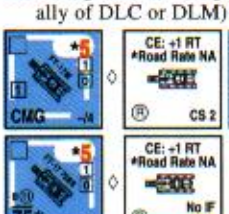
GRCA (*Groupe de Reconnaissance de Corps d'Armée*): corps reconnaissance group

GRDI (*Groupe de Reconnaissance de Division d'Infanterie*): infantry division reconnaissance group

RAM (*Régiment d'Automitrailleuses*): armored car regiment

RCA (*Régiment de Chasseurs d'Afrique*): African chasseur regiment

RDP (*Régiment de Dragons Portés*): vehicle-borne dragoon regiment (usually of DLC or DLM)



1. *FT-17M, FT-17C & FT-17 75BS:* With its revolutionary combination of 360°-traverse armament, rear-mounted engine and fully tracked chassis, the FT-17 was the direct ancestor of the modern tank. Designed and developed by Col. (later Gen.) Jean-Baptiste Estienne and the industrialist Louis Renault, and known officially as the *Char Léger Renault FT mle 1917* ("FT" being the production code assigned by Renault), almost 3,200 of various models had been manufactured by the end of WW1, with the number rising postwar to some 3,800. First to be built was the MG-armed FT-17 *Mitrailleuse*, followed by the FT-17 *Canon* with a 37mm gun derived from the infantry support weapon, and then the FT-17 75BS with a Blockhaus Schneider 75mm howitzer. (A fourth type, not included in the game, was an unarmed radio vehicle designated the FT-17 TSF.) Due to its slow speed, short range of 12-21 miles and general fragility, the FT-17 was usually transported by truck for journeys of any length. FT-17 were exported to a large number of foreign countries after WW1, and saw more action between the wars (including use by both sides in the Spanish Civil War) than any other tank type. In the 1930s the FT-17M received a newer type of MG; this version is referred to in some sources as the FT-31. Modified versions of the FT-17 were built in the U.S.A. (the 6 Ton Tank), Italy (the Fiat 3000; Italian Vehicle Note 1) and the U.S.S.R. (the KS and MS series). In May 1940 the French still possessed almost 1600, of which some 536 were on active duty in France, equipping nine BCC (most of which were behind the Maginot Line), three CACC, and about a hundred independent *sections* used primarily for the defense of certain cities, airfields and military installations. In addition, 244 were stationed in French North Africa, 54 in the Levant, and one company in Indo-China. A *section* (i.e., platoon) theoretically comprised a mixture of five FT-17M and FT-17C plus one FT-17 75BS; independent *sections*, however, contained five FT-17M. The Germans captured hundreds of FT-17, and used them in action on a few occasions; e.g., one FT-17C at Dieppe in 1942 (which allegedly managed to immobilize a Churchill), and seventeen FT-17 that operated against the Paris Resistance in August 1944.

Vehicle 4

†Minimum road-MP cost is one MP; i.e., no FT-17 may use the ½-MP road rate even if CE—as signified by "Road Rate NA" on the counter.

‡Dates for all three versions are 5-6/40 [EXC: NA in Norway], 6-7/41, 11/42 (NA vs Axis), and 3/45 (Indo-China; *FT-17M* and *FT-17C* only).



2. *AMR 33:* In 1932 a requirement for the AMR (*Automitrailleuse de Reconnaissance*) class of cavalry AFV was issued. The AMR was to be fully tracked, fast and lightly armed, with local reconnaissance as its designated role. The first vehicle of this type to be accepted was the AMR 33, of which 120 were built, all by Renault. In service it was found to suffer from fragile tracks and suspension. When the Germans invaded, AMR 33 were being used in the 5th, 3rd, 14th and 15th RDP of the 1st, 2nd, 4th and 5th DLC respectively, with a half-squadron of eleven (two five-vehicle platoons) in each of the RDP's two battalions; each platoon usually worked in conjunction with a motorcycle platoon. In June 1940, the 4th RAM of the newly forming 7th DLM received fifteen AMR 33.

†Availability is limited to 5-6/40 (French Vehicle Note E also applies).



3. *AMR 35 & AMR 35(L):* A number of significant modifications to the AMR 33 led to the AMR 35 which, thanks to its bigger engine and improved suspension, was faster and more maneuverable than its predecessor despite being slightly larger and heavier. 167 MG-armed AMR 35 were built, all by Renault; approximately half carried the more potent 13.2mm MG. (Ten others were equipped with a bow-mounted 25mm anti-tank gun, but these saw little if any action.) "(L)" in the piece name stands for "late model", since the French did not distinguish between the MG-armed versions. On May 10th, 1940, AMR 35/35(L) were being used in the 1st and 4th RDP of the 2nd and 1st DLM respectively, with one squadron of 23 (five per platoon) in each of the RDP's three battalions; in addition, eight were present in the 1st GRDI of the 5th DIM. In June of that year, several squadrons of AMR 35/35(L) were issued to the 14th and 31st RDP of the newly forming 7th DLM.

†Availability is limited to 5-6/40 (French Vehicle Note E also applies).



4. *R35:* The *Char Léger mle 1935 Renault* (as the R35 was officially designated) was the light tank design chosen to replace the FT-17 in the infantry-support role. At the time it was quite novel in being of largely cast construction. Its MA was the same as that of the FT-17C, and its suspension was based on that of the AMR 35. In May 1940 about 900 were on active service in France, wholly equipping twenty (and partially equipping two more) independent BCC allocated to the various armies. No R35 were assigned to the DLC or DLM; de Gaulle's 4th DCR contained three R35-equipped BCC (the 2nd, 24th and 44th), and later the attached 3rd Cuirassiers were partially re-equipped with forty R35—but none of the other three DCR used R35 until late-May/early-June,

FRENCH VEHICLE LISTING

#	Name & *Type*	⊛	WGT	BPV	RF	Dates	Size	AF	TA	OT	CS	MP	GP	GT	MA	ROF	B#	IF	BMG	CMG	AAMG	SA	Am	s#	PP/T#	Notes
3	FT-17M *Tr*	•	7	16	1.4	18-3/45†	+1	1/0	+FSR		2	5†	L	1MT	CMG	1				4						1†,C
2	FT-17C *Tr*	•	7	16	1.5	18-3/45†	+1	1/0	+FSR		2	5†	L	1MT	T37*								AP9			1†,C
1	FT-17 75BS *Tr*	•	7.5	22	1.6	19-11/42†	+1	1/0	+FSR		3	5†	L	1MT	T75*		*11*	•								1†,C
4	AMR 33 *Tr*	•	5.5	22	1.3	34-6/40†	+1	1/0	+SR		2	**16**	L	1MT	CMG	1				4						2†,E
2	AMR 35 *Tr*	•	6.5	23	1.3	37-6/40†	+1	1/0	+SR		2	18		1MT	CMG	1				4						3†,E
2	AMR 35(L) *Tr*	•	6.5	24	1.3	37-6/40†	+1	1/0	+SR		2	18		1MT	T12.7	1 (6)	*11*									3†,E
8	R35 *LT*	•	10	25	1.0-1.2†	36-11/42†	+1	4	+FSR		2	8	L	1MT	T37*					2†[3]	†[1]		AP10			4†,A†[1],C
6	H35 *LT*	•	11.5	25	1.2-1.3†	36-6/40†	+1	4	+FSR		2	**10**		1MT	T37*					2†[1]	†[1]		AP10			5†,A†[1],C,E
6	FCM 36 *LT*	•	12.5	25	1.4-1.5†	38-6/40	+1	4/3			2	9†[1]		1MT	T37*					2			AP10			6†,C,E,I†[1]
6+4	H39 *LT*	•	12	26	1.1-1.4†	39-7/41†	+1	4	+FSR		2	12		1MT	T37*					2†[1]	†[1]		AP10			7†,A†[1],C,F
3+2	H39(L) *LT*	•	12	27	1.2-1.6†	5/40-5/45†	+1	4	+FSR		2	12		1MT	T37					2†[1]	†[1]		AP10			8†,A†[1],C,E,F
2	H35(L) *LT*	•	10.5	26	1.3-1.4†	5-6/40†	+1	4	+FSR		2	**10**		1MT	T37					2†[1]	†[1]		AP10			8†,A†[1],C,E
2+2	R35(L) *LT*	•	10	26	1.6	5/40-5/45†	+1	4	+FSR		2	8	L	1MT	T37					2†[1]	†[1]		AP10			8†,A†[1],C,E,F
6	R40 *LT*	•	12	27	1.4	6/40	+1	4	+FSR		2	9†	L	1MT	T37					2†[1]	†[1]		AP10			9,A†[1],C,E,I†
5	D1 *MT*	•9†[1]	14	27	1.5-1.4†	34-3/43†	0	3	+FSR		3	7†[2]	L	1MT	T47*				1†[3]	2						10†,B†[3],C,I†[2],R†[1]
3	D2 *MT*	•9†[1]	19.5	28	1.5-1.6†	36-6/40†	0	4			3	**8**†[2]		1MT	T47*				1†[3]	2						11†,B†[3],C,E,I†[2],R†[1]
3	D2(L) *MT*	•9†[1]	20	31	1.5-1.6†	5-6/40†	0	4	+FSR		3	**8**†[2]		1MT	T47				1†[3]	2†[3]	†[1]					11†,A†[4],B†[3],C,E,I†[2],R†[1]
8+2	S35 *MT*	•9†[1]	19.5	33	1.2-1.5†	37-4/45†	0	6/4	+SR		4	13†[2]		1MT	T47					2†[3]	†[3]					12†,A†[3],C,F,I†[2],R†[1]
8+2	B1-bis *HT*	•9†[1]	32	52	1.2-1.5†	38-4/45†	–1	8/6†	–F		5	**11**†[2]		1MT-NT	T47			•[2]†	1†[3]	2†[3]	†[3]	B75*†	AP9[2]†			13†,A†[4],B†[3],C,E,F,I†[2],R†[1]
5	Valentine V(b) *HT*		17	43	1.2	4-5/43	+1	6	+F		4	10		T	T40L	2				4	Opt2†			sM8		14†,F
3+2	AM Dodge(a) *SC*		6	25	1.3	6/41-6/42†	0	★†	+FSR†	•	6†	25[1]	H	T	T37*†	2				2†	Opt2†		AP10			15†,F
3	AMD 20 cv TOE *AC*	•9†[1]	6.5	24	1.3-1.4†	32-5/43†	0	0			4	23†[2]		ST	T37*					4			AP9			16†,D†[2],R†[1]
4	AMD 50 AM *AC*	•	6.5	23†	1.2-1.4†	32-3/45†	0	0			4	20†[1]		RST	T37*					–[R4]			AP9			17†,D†[1]
3	AMD 80 AM *AC*	•	7.5	30	1.4	34-5/43†	0	1	+FSR		4	24†[1]	H	RST	T12.7	1 (8)				–[R2]						17†,D†[1]
6	AMD 35 *AC*	•	8.5	26	1.2-1.3†	36-6/40†	0	2/1	+SR		4	28		ST	T25LL	1				4	Opt2†					18†,E
3	Laffly W15T CC *TDtr*		5	28	1.4	6/40	+1	★†			3	21†[1]		NT	R47L†	2	*11*				2					19†,E,J†[1]
2	Ac de 75 Conus(b) *SPAtr*		9	46	1.4	10/42-5/43	0	0/0/★T		•	5	26[1]	H	ST†	T75†[1]	1	11				2†			s8		20†,F,M†[1]
2	Ac de 75 mle 97 *SPAtr*		8	41	1.4-1.3†	1-5/43	0	★			4	20[1]	H	ST†	T75†[1]	1								s8		20†,M†[1]
2	Cam. de Mitr. CA *AAtr*		3	25	1.3-1.4†	39-3/45†	+1	★			4	23[1]			AAMG†	3	11				6†					21†
2	Cam. de 13.2 CAJ *AAtr*		3	37	1.6-1.3†	6/41-5/43	+1	★			4	23[1]		T	T12.7†	3 (12)					†[1]					21†,AA†[1]
2	Camion de 20 CA *AAtr*		7	31	1.6-1.4†	5/40-3/45†	0	★			4	21[1]		T	T20L†	3 (4)					†[1]					21†,AA†[1]
2+1	Ac de 25 CA *AAtr*		7	33†	1.6-1.3†	6/40-5/43†	0	★			4	21[1]		T	T25LL†	3 (6)	*11*†				†[1]					21†,F,AA†[1]
2	Ac de 40 CA(a) *AAtr*		8	45	1.3	8/44-5/45	0	★			4	27[1]		T	T40L†	3 (8)					†[1]					22,E,F,M†,AA†[1]
3+1	Ac de 75 mle 13/34 *AAtr*		6	30	1.3-1.6†	14-5/45†	0	★			7	12†[1]	H	T†	T75†	1					†[2]		†			23†,D†[1],F,AA†[2]
3	AMC 29 *ht*	•	7	21	1.4-1.3†	32-5/43†	0	0	+FSR		3	**15**		1MT	T37*					2			AP9			24†
4	C-K P17 *ht*		2.5	8	1.5	30-3/45†	+1	★			*4*	**11**													5PP/T8	25†
10	C-K P19 *ht*		3	9	1.3	31-6/40†	+1	★			*5*	**14**													9PP†[1]	25†,H†[1]
4	SOMUA MCG *ht*		6.5	10	1.5	31-5/43†	0	★			*4*	**11**													5PP/T2	26†
4	Unic P107 *ht*		5	11	1.4	32-5/43†	0	★			5	14													9PP†/T6	27†,L†[1]
6	Renault UE *APC*		4	9	1.5-1.2†	32-3/45†	+2	1/0			2†[1]	10	L		BMG	1	11		Opt2†						4PP†/T12	28†,G†[1],K
8	Lorraine 38L *APC*		9†	12	1.4-1.5†	5-6/40	+1	1/0		•	*3/2*†	11†	L												6+8PP†	29†,E,H†
2	Lorraine 37L 44 *APC*†		6	19	1.4	9/44-5/45	+2	1/0		•†	3	13	L		BMG	1			2						9PP†/T12	30†,E,K
2	Carrier AC(b) *APC*†		4.5	28	1.2-1.6†	3/42-5/43	+2	0		•	3	15	L	NT	B25LL†[1]	2										31†,F,M†[1]
2	Latil TAR H2 *PC*		9.5	14†	1.5-1.6†	35-5/43†	–1	★			*5*	14†[1]	H												13PP/T–4	32†,J†[1]
2	Laffly S15T *PC*		5.5	11	1.5-1.4†	37-3/45†	+1	★			*5*	21†[1]													9PP†[3]/T7	33†,J†[1],L†[3]
8	Laffly S20TL *PC*		5.5	13†	1.3-1.4†	37-6/40†	+1	★			5	27†[1]													14PP/T12	34†,E,J†[1]
4	Laffly V15T *PC*		3	11	1.3	5-6/40	+1	★			*5*	25†[1]													9PP/T10	35,E,J†
3	Peugeot 202 *tr*		1.5	10	1.1-1.2†	39-3/45	+2	★			2†[1]	33[1]	†		AAMG†	1	11				Opt2†				8PP†	36†,G†[1]
6	Citroën 23 *tr*		3.5	12	1.2-1.3†	39-3/45	+1	★			*5*	23[1]													14PP/T9	36†
6	Renault AGR2 *tr*		8	14	1.3-1.4†	38-3/45	0	★			*7*	20[1]	H												29PP	36†

when each received one or more R35-equipped BCC to replace losses. In June 1941, the 6th and 7th RCA in the Levant possessed some 48 R35 each. In November 1942, about 140 R35 were used in the 1st (and probably the 11th) RCA in Morocco and the 2nd RCA in Algeria. In an R35 BCC a *section* normally comprised three, while a *compagnie* had thirteen, such AFV. In RCA, however, R35 were organized in two *escadrons* (squadrons) of four five-tank *pelotons* (platoons) each. One source states that 1,464 R35 had been built by May 1940, plus another 146 prior to the French surrender; others, however, allege that some 2,000 were built. In either case, the R35 was the most common tank in French (and Vichy) service in 1940-42. Of those produced, 190 were exported: 50 each to Poland, Yugoslavia and Turkey, and 40 to Romania.

Captured R35 were used by the Germans primarily in France and the Balkans (though some sources allege that 200 were sent to the Eastern Front in 1941 for use as recon vehicles). The Germans also converted numbers of R35 to other uses, perhaps the most common example being the Panzerjäger 35R(f) carrying an ex-Czech 47mm anti-tank gun (German Vehicle Note 44). More than a hundred captured R35 were turned over to Italy (Italian Vehicle Note 11).

†Dates and RF are 39-5/40 (1.0) [EXC: NA in Norway], 6/40 (1.1), 6-7/41 (1.1), and 11/42 (NA vs Axis; 1.2).



5. *H35:* This tank, known officially as the *Char Léger mle 1935 Hotchkiss*, was designed to compete with the R35 for the infantry-tank production contract. Initially rejected for that use, it was adopted by the cavalry to complement the S35 (French Vehicle Note 12) in the DLM. The R35 and H35 were very similar in construction and appearance, both being largely of cast construction and using the same turret. 400 H35 were built, with 300 going to the cavalry of the DLC, DLM and GRDI, and 100 to the independent 13th and 38th BCC for infantry support. In May 1940, the 4th Cuirassiers and 18th Dragoons in the 1st DLM, and the 13th and 29th Dragoons in the 2nd DLM, contained two H35 squadrons (i.e., one *groupe d'escadrons*) apiece—while the 2nd Battalion of the 11th RDP in the 3rd DLM contained one squadron of H35. Each such squadron ideally comprised four five-tank platoons. In addition, the 1st-4th RAM in (respectively) the 1st-4th DLC each had a squadron of sixteen H35 (comprising three five-tank platoons), as did the 5th GRDI of the 25th DIM. In June of 1940, the 4th RAM in the newly formed 7th DLM contained two squadrons of H35.

†Dates and RF are 5/40 (1.2) and 6/40 (1.3).



6. *FCM 36:* Built by the firm of *Forges et Chartiers de la Méditerranée* to increase the number of infantry-support tanks, the *Char Léger mle 1936 FCM* had several unusual features for a French light tank. Both its hull and turret were of entirely welded construction, and it was the only production French tank of the time to have a diesel engine. Its armor was thin but well-sloped to increase its ballistic effectiveness. Due to their high cost, only a hundred FCM 36 were built, of which ninety were used to equip the 4th and 7th BCC assigned to the 2nd Army. 29 were lost on 14 May during a counterattack by the 7th BCC near Chémery, nine miles south of Sedan.

†RF is 1.4 for 5/40 and 1.5 for 6/40.



7. *H39:* This was an improved version of the H35, featuring a modified suspension and more powerful engine. Some sources refer to it as the H38, but this was not a French designation. Some 600 were built prior to May 1940, plus about another 100 by late June of that year. H39 were issued to the 25th and 26th BCC of the 1st DCR, the 14th and 27th BCC of the 2nd DCR, the 42nd and 45th BCC of the 3rd DCR, the 342nd CACC (which saw action in Norway and later, as the Free French 1st *Compagnie de Chars*, in Syria), and the 351st CACC. In the 3rd DLM, the 1st and 2nd Cuirassiers each contained two H39 squadrons (i.e., one *groupe d'escadrons*) while the 1st and 3rd Battalions of the 11th *Dragons Portés* contained one H39 squadron apiece. Each such squadron comprised four five-tank platoons. The 5th RAM of the 5th DLC contained a squadron of sixteen H39 (three five-tank platoons), as did the 2nd GRDI of the 9th DIM. In June, the 7th Cuirassiers received one squadron of H39 while the 4th and 8th RAM of the newly formed 7th and 4th DLM received two and one H39 squadron(s) respectively.

†Dates and RF are 5/40 (1.1), 6/40 (1.2), and 6-7/41 (Free French only; 1.3).



8. *H39(L), H35(L) & R35(L):* The relatively poor anti-tank performance of the 37mm mle 1916 TR infantry gun during the Spanish Civil War led the French to redesign the SA 18 version used in their light tanks. This resulted in the more powerful SA 38, of which 358 were installed in H35, H39 and a few R35 in 1940 just prior to the German invasion. Several hundred more SA 38 were manufactured in May-June of that year. The upgunned H35 and H39 were issued to the DCR and DLM, mainly as section/platoon leader vehicles in the battalions equipped with the same type of tanks. The R35(L) were probably employed in the same manner in a few of the R35-equipped BCC—however, at least one source states that none were used in the 2nd, 24th or 44th BCC of the 4th DCR (at the end of May some *were* issued to the 1st Battalion of the 1st Polish Tank Regiment in France).

Several sources refer to the upgunned R35 as the R39, and call the H39 the H38 while naming the upgunned version the H39; however, "H38" and "R39" were not official French designations. In fact, French nomenclature did not distinguish at all between the differently armed versions, so "(L)" (for "late model") has been added to the piece names for game purposes. Some of the R35, H35 and H39 equipped with the original SA 18 gun were modernized by their German captors, who retrofitted them with the SA 38. A small number of recaptured R35(L) and H39(L) were used by the Free French in 1944.

†*R35(L)* Dates are 5-6/40, and 9/44-5/45 (Free French only). *H35(L)* Dates and RF are 5/40 (1.3) and 6/40 (1.4). *H39(L)* Dates and RF are 5/40 (1.2), 6/40 (1.3), and 9/44-5/45 (1.6; Free French only).



9. *R40:* In 1939 the Moulineaux arsenal (AMX) developed a new type of track and suspension (derived in part from the Char B tank) for the R35. The resulting variant, designated the R40 (a.k.a. the R35 AMX or AMX 40), went into production in March 1940. Exactly how many were built is not known; however, in May of that year the 40th and 48th BCC each contained thirty R40 and fifteen R35, and in June another two dozen or so were issued to the 2nd Battalion of the 1st Polish Tank Regiment at Camp de Satory near Paris—so it would seem that 80+ were constructed. A few R40 were seized by the Paris Resistance in August 1944. All production R40 carried the more powerful SA 38 gun.

A BCC containing *chars légers* (other than FT-17) normally comprised three *compagnies de chars* (each with four three-tank *sections* and one command tank), plus a *compagnie d'échelon* of six replacement tanks (one of which was usually used by the BCC's commanding officer). A CACC of such tanks comprised a *compagnie de chars* plus (usually) two replacement tanks.



10. *D1:* The *Char Moyen D1* was a Renault light-tank design derived (via the NC tank of the 1920s) from the FT-17 and the intended successor to the latter in the infantry-support role. It entered series production in 1932; by 1935 when its manufacture ended, some 160 had been built and it had been reclassified as a medium (*moyen*) tank. The D1 was issued to the 61st, 65th and 67th BCC, all of which were sent to Tunisia in 1937 to guard the border with Italian Libya. In June 1940 the 67th BCC returned to France where it fought against the 6th and 8th Panzer Divisions. All but about 60 of the 107 D1 remaining in Vichy North Africa were disarmed by order of the Germans after France surrendered. By November 1942 only fifteen (the 7th Squadron of the 4th RCA) were immediately available to contest the Axis occupation of Tunisia, while several squadrons of the 9th RCA engaged elements of the U.S. 1st Armored Division south of Oran. Afterwards, about 45 D1 of the 5th and 9th RCA were sent to reinforce the French in Tunisia. A D1 platoon in French North Africa comprised five such tanks, while a squadron had four platoons.

†Dates and RF are 6/40 (1.5) and 11/42-3/43 (1.4).



11. *D2 & D2(L):* The *Char Moyen D2*, derived essentially from the D1 and intended as its successor in the infantry-support role, was faster, larger and more heavily armored than its predecessor. An order for fifty was placed with Renault in January 1934, but was not completed until 1938 due to a diversion of funds to the development of the Char B. A contract for another fifty was awarded in June 1938; these were not built until early 1940, and differed from the



Vehicle 11

first batch by having the same turret and 47mm gun as the S35 and Char B1-bis; "(L)" for ("late model") has been added to the piece name of this version since French nomenclature did not distinguish between the two models. The Chars D2 and some D2(L) were assigned to the 19th BCC, which for a time in May 1940 was part of de Gaulle's 4th DCR. The remaining D2(L) were used to form the 345th (also assigned to the 4th DCR), 346th and 350th CACC. Those BCC and CACC containing *chars moyens* were organized in the same way as those equipped with *chars légers* (see French Vehicle Note 9).

†Dates and RF for both versions are 5/40 (1.5) and 6/40 (1.6).



12. *S35:* Designed by the *Société d'Outillage Mécanique et d'Usinage d'Artillerie*, a subsidiary of the Schneider firm, the S35 was based loosely on the Char D2. At first it was designated an *Automitrailleuse de Combat* (AMC—escort AFV for the AMR and AMD reconnaissance vehicles). However, it performed so well that the cavalry decided to use it as the standard medium tank in the new DLM. (The infantry arm refused to adopt it.) Officially called the *Char de Cavalerie mle 1935 SOMUA*, the S35 represented a notable advance in AFV design, for it was the first production tank of entirely cast construction: the hull was a single bathtub-shaped casting, while the superstructure consisted of one casting to cover the engine compartment and another over the rest of the hull; the APX-4 turret was a single cast piece also. 430 (some say 450) S35 were built. At the start of the German invasion, two S35 squadrons (forming one *groupe d'escadrons*) apiece had been issued to the 4th Cuirassiers and 18th Dragoons of the 1st DLM, to the 13th and 29th Dragoons of the 2nd DLM, and to the 1st and 2nd Cuirassiers of the 3rd DLM. The 3rd Cuirassiers also had one S35 *groupe*, while in June 1940 the 7th Cuirassiers and 8th RAM received one such *escadron* each. As part of the *Groupement Blindé Français*, one *escadron* of the 12th RCA used 23 S35 vs Axis troops in Tunisia (these tanks had been evacuated from France in June 1940, and were transported overland to Tunisia from Dakar). An S35 *escadron* comprised 23 tanks, with four *pelotons* (platoons) of five tanks each. Due to its good gun, armor and speed, it was considered by many to be the best tank of its day; unfortunately, combat showed these factors to be largely offset by the limitations of its one-man turret and poor radio equipment.

The Germans captured 297 S35, thirty of which they gave to the Italians (who assigned them to the garrison of Sardinia); the rest they used in the Balkans, France and on the Eastern Front. In 1945, sixteen S35 in the 1st Squadron of the Free French 13th Dragoons saw action along the southwest coast of France.

†Dates and RF are 5/40 (1.2) [EXC: NA in Norway], 6/40 (1.3), 4-5/43 (1.3), and 3-4/45 (Free French only; 1.5).



13. *B1-bis:* Intended originally as a heavy infantry-support tank, the first prototype of the Char B appeared in January 1929. Testing and altered design requirements resulted in the Char B1, which entered service at the end of 1935. 35 of this model were built (but in 1940 were being used as training vehicles and consequently saw little or no combat). Further modifications led to the *Char de Bataille B1 bis* which, compared to its predecessor, featured heavier armor, a bigger engine, and a more powerful gun in a new turret. The B1-bis was a sophisticated and powerful weapon for its time, but suffered from a number of drawbacks, among which were its one-man turret, poor communications equipment, relatively slow speed and short radius of action, and a complexity that hampered mass production. The turret and gun were the same as used on the S35. The bow-mounted 75mm howitzer and MG were aimed and fired by the driver. They could be elevated, but had no lateral traverse; i.e., the tank itself had to be turned in order to aim them horizontally. For this purpose a hydrostatically controlled auxiliary differential allowed infinitely fine variations in steering. This system was quite complex, however, and prone to breakdowns. By May 10th 1940, some 243 were deployed in combat units. They formed the main striking force of the DCR, equipping the 28th and 37th BCC of the 1st DCR, the 8th and 15th BCC of the 2nd DCR, the 41st and 49th BCC of the 3rd DCR, and the 46th and 47th BCC of the 4th DCR. They were also used to form the 347th-349th, 352nd and 353rd CACC. In late June a few were issued to the 10th BCC as well. A B1-bis *section* normally comprised three, and a *compagnie* ten, such AFV. A total of 368 were built. In action, the armor of the B1-bis proved nearly impervious to all but the German 88, aside from a vulnerable engine grille on the port-side hull (very few German units actually discovered this Achilles' heel during the fighting). Many B1-bis, however, were lost prematurely through breakdown or fuel shortage.

Of the 161 B1-bis captured by the Wehrmacht, 60 were converted to flamethrower tanks in 1941-42 by substituting a flame gun for the 75mm and adding an armored fuel container at the rear of the vehicle; these saw action in France, Holland (some being used against British paratroopers around Arnhem), the Balkans and the Crimea. 16 more were converted to SP 105mm howitzers. The Free French used 17 recaptured B1-bis to form the 2nd Squadron of the 13th Dragoons, which fought along the Gironde river in 1945.

†The 47 is a 1MT Gun, while the 75* SA is a bow-mounted NT Gun. Either the MA or SA can claim the possibility of armor-leader direction, but only the one that fires *first* in a phase (treating Defensive First and Final Fire as one phase) can actually use it.

†The 75* SA cannot use Intensive Fire—as signified by "No IF?" on the counter.

†"AP9" applies only to the 75* SA—as signified by the superscript "$^{*?9}$".

†The 75* SA receives an extra +1 TH DRM when firing at a moving/-Motion target—as signified by a white dot beside the SA designation on the counter. Whenever the 75* SA fires at a moving/Motion target and/or without using an Acquired-Target DRM, and whenever the BMG fires at a target that is *not* currently Acquired by the 75* SA, all Acquisition currently held by the 47 MA is immediately lost.

†In addition to normal CH possibilities, a hit on the *port-side hull* of a B1-bis achieved by a weapon using the Vehicle Target Type (or a LATW TH Table) is a CH if its Original TH DR was a "3".

‡Dates and RF are 5/40 (1.2), 6/40 (1.4), and 3-4/45 (Free French only; 1.5).



14. *Valentine V(b):* In March 1943, 62 Valentine III/V tanks (British Vehicle Note 28) were transferred from the 6th Armoured Division to the French army in Tunisia. They were used to outfit three squadrons of the 5th RCA which, in conjunction with a squadron of S35 (see French Vehicle Note 12) and miscellaneous support units, formed the *Groupement Blindé Français*. As part of the French XIX Corps, the GBF subsequently saw action around Pont-du-Fahs.

†AAMG RF is 1.3.



15. *AM Dodge(a):* This vehicle was originally a 1940 Dodge 4×2 truck purchased in Egypt by the French. About thirty were modified by the Vichy army in Syria in 1940-41 by adding 12mm armor plates around the flatbed, an armored visor for the windshield, and a pedestal-mounted 37mm mle 16 TR gun with coaxial LMG. They were issued to the 6th (and possibly the 7th) RCA and used in five-vehicle platoons. Those captured by the Free French were later employed as reconnaissance vehicles in North Africa by the 1st BIM (*Bataillon d'Infanterie de Marine*) of the 1st BFL. The AM Dodge was nicknamed *Tanaké* (an Arab term for an all-purpose steel vessel).

†This partially armored AFV is treated as an armored target (with "0" AF) only vs an ordnance/OBA hit on (or DC "hit" vs; C7.346) its turret, and vs any Collateral Attack resulting from such a hit. However, both the vehicle and its Inherent crew receive an extra +2 DRM to any attack that treats it as an *unarmored* target [EXC: no such DRM applies vs a CC/FT/-minefield attack, or if the attacker's elevation advantage is > the range, or if the vehicle is destroyed].

†The MA of both versions uses black TH numbers unless captured—as signified by "Black TH#s" on the counter.

†The CMG has AA capability—as signified by "CMG: AA" on the counter. The MA cannot fire while the vehicle is marked with an AA counter (but its Multiple ROF is not lowered when that AA counter is removed).

†The AAMG is available only in 1942, and its RF is 1.0.

†Dates and RF are 6-7/41 (Vichy only; 1.2), and 2-6/42 (Free French only; 1.3).



16. *AMD 20 cv TOE:* This vehicle, also known variously as the 20 cv Panhard, AMD Panhard TOE, or Panhard 165/175 TOE, was produced specifically for colonial use ("TOE" stands for *Territoire d'Opérations Extérieures*). A total of thirty were built. One squadron was sent to the Levant where it was issued to the 6th RCA, while the remainder were shipped to French North Africa. An advanced feature of the vehicle for its time was the use of an additional, rear-facing, driver.

†Dates and RF are 6-7/41 (1.3), and 11/42-5/43 (1.3 for 11/42 and 1.4 thereafter).



17. *AMD 50 AM & AMD 80 AM:* These were more modern versions of the WW1-era White armored car. 98 of the AMD 50 (a.k.a. the White-Laffly or Laffly 50 AM) were built in 1932-34, and most were used in French North Africa. 28 of the AMD 80 (a.k.a. the Laffly-Vincennes or Laffly 80 AM) were built in 1934-35 and sent to Tunisia where some later fought against Axis troops. Both designs had a second driver facing the rear of the vehicle. AMD in French North Africa were issued mostly to RCA. "AMD" stands for *Automitrailleuse de Découverte*, which indicated an AFV used for long-range reconnaissance.

†With a WGT of "6" and a printed MP allotment of "16", the AMD 50 may be used to represent the White armored car, which during WW2 saw action in the Levant with the 6th (and perhaps the 7th) RCA, and with the 1st Foreign Legion Cavalry Regiment in Tunisia. BPV for use as the White is "22".

†Dates and RF for the *AMD 50 AM* are 6-7/41 (1.3), 11/42-5/43 (1.2 for 11/42 and 1.3 thereafter), and 3/45 (Indo-China; 1.4). For the *AMD 80 AM* they are 11/42-5/43 (1.4).



18. *AMD 35:* Often referred to as the Panhard 178 or P-178 (or less often as the Panhard mle 1935 or AMD 178), and nicknamed the "Pan-Pan", this was the standard long-range reconnaissance vehicle of the French cavalry in Europe. Its combination of rear-mounted engine, four-wheel drive, front and rear drivers, and 25mm main armament made it one of the more advanced and powerful recon vehicles of the pre- and early-war period. On the downside, it lacked independent suspension, and only command versions were radio-equipped. On May 10th 1940 some 480 existed, of which about 360 had been issued to units in the field. Another 47 were built in May-June of that year. The 6th, 8th and 12th Cuirassiers of (respectively) the 1st, 2nd and 3rd DLM each contained two squadrons of AMD 35, each of which comprised four five-vehicle platoons (with each platoon normally accompanied by a platoon of motorcycle infantry—the combination being referred to as a *Détachement de Découverte* or DD). Similarly, the RAM of each DLC and the GRDI of each DIM was authorized a squadron of sixteen AMD 35 in three platoons. Each BCP was authorized (but the 4th BCP of the 4th DCR lacked) one *section* of five AMD plus another of motorcyclists. Several other miscellaneous formations employed it as well (e.g., the 32nd GRDI; the 6th and 10th Cuirassiers, and 8th RAM, in June).

The Germans captured at least 190 AMD 35 and, after making certain modifications, issued them to several Wehrmacht and SS reconnaissance units for use in the invasion of the Soviet Union.

†If present, the AAMG may fire only at a target that lies within the AMD 35's TCA—as signified by "AAMG: TCA only" on the counter. AAMG RF is 1.4.

†Dates and RF are 5/40 (1.2) and 6/40 (1.3). French Vehicle Note E also applies.



19. *Laffly W15T Chasseur de Chars:* The idea of mounting the powerful 47mm anti-tank gun on a cross-country truck was first put forth in the fall of 1939. The following January a prototype was constructed, using the 6×6 chassis of a Laffly-Hotchkiss W15T with the gun welded onto the bed pointing to the rear. Aside from being open-topped over the gun, the vehicle was also completely armored. Trials proved successful, but production did not begin for several months. Finally, between the 24th of May and the 17th of June, seventy W15T CC were built. Unfortunately, given the desperate military situation at that time, most of the armor protection envisaged in the original design had to be omitted in order to speed up production. As the vehicles came off the assembly line they were assigned to newly forming independent anti-tank *batteries* which, after only a day or two of training, were rushed to the front. Each *batterie* ideally comprised five W15T CC, four towed or SP 25mm AA guns and miscellaneous support vehicles. They performed well in action (the 54th *Batterie* was credited with destroying 28 tanks and five armored cars in eight days), but suffered heavy losses in the process. *Chasseur de Chars* means "Tank Hunter".

†The MA may fire only at a target that lies within the W15T CC's "rear" VCA (i.e., the VCA emanating from its rear Target Facing)—as signified by "MA: RVCA only" on the counter.

†Direct Fire attacks vs this vehicle which emanate from within its front/rear VCA, and which do not destroy it, affect its Inherent crew as if they were manning a non-Emplaced, non-vehicular AT. No Gunshield benefits apply to the vehicle itself.

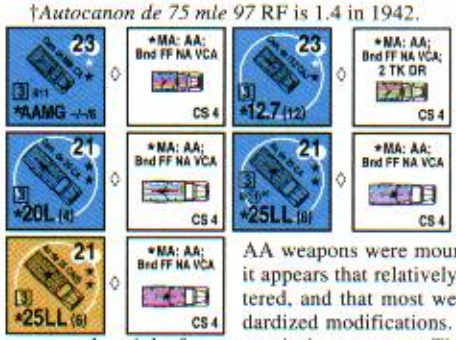


20. *Autocanon de 75 mle 97 & Autocanon de 75 Conus(b):* In Vichy North Africa about 30 mle 1897 field guns were mounted on trucks in such a way as to allow 360° traverse of the gun. Incorporated into several artillery regiments, they apparently saw action only in Tunisia. At the other end of the Mediterranean, a Lieutenant Conus of the Free French designed an armored SP version of the same gun in early 1942, using a Canadian Ford F60L 4×4 3-ton lorry and the turret-traverse parts from an Italian tank. About 12 "Conus guns" were built, eventually forming the 3rd Squadron of the 1st RMSM (*Régiment de Marche de Spahis Marocains*) armored car unit which fought as part of the British 8th Army.

†Neither vehicle may fire at a target that lies within the VCA and is also at the same or a lower level than the firer—as signified by "VCA: ≤ level NA" on the counter.

†The AAMG of the *Autocanon de 75 Conus* may fire only at a target that lies within its TCA [EXC: during the CCPh; as per the preceding paragraph]—as signified by "AAMG: TCA only" on the counter.

†*Autocanon de 75 mle 97* RF is 1.4 in 1942.



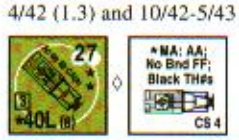
21. *Camion de Mitrailleuse Contre-Avions, Camion de 13.2 CAJ, Camion de 20 CA, & Autocanon de 25 CA:* At various times and places before and during the war, French light AA weapons were mounted on trucks. However, it appears that relatively few vehicles were so altered, and that most were field rather than standardized modifications. The MG-armed versions were used mainly for convoy/column escort. The motorcycle reconnaissance *section* in the 5th, 17th and 16th BCP of (respectively) the 1st, 2nd and 3rd DCR contained a few truck-mounted AAMG. Several (perhaps three) W15T CC *batteries* (French Vehicle Note 19) employed *Autocanons de 25 CA* in lieu of towed 25mm AA guns. The Free French captured some 25mm AA guns in the Levant and mounted twelve of them on trucks; nicknamed "Dervishes", these later saw limited action in North Africa.

†None of these vehicles may use Bounding *First*, nor Motion, Fire vs a target that lies within its VCA—as signified by "Bnd FF NA VCA" on the counter.

†When using the AP To Kill Table for an attack by the *Camion de 13.2 CAJ*, make two TK DR; only one DR (firer's choice) is used. This is signified by "2 TK DR" on the counter.

†"B(11)^{40}" on the counter signifies that the *Autocanon de 25 CA* suffers from Low Ammo (D3.71) in scenarios set in 1940. For later scenarios it is assumed to have normal B12, and a BPV 10% (FRU) > its printed BPV.

†*Camion de Mitrailleuse CA* Dates and RF are 39-5/43 (1.3) [EXC: NA in Norway; 1.4 for Madagascar, 5/42 and 9/42], and 3/45 (Indo-China; 1.3). *Camion de 13.2 CAJ* RF is 1.6 through 11/42 and 1.3 thereafter. *Camion de 20 CA* Dates and RF are 5/40-10/42 (1.6) [EXC: NA in Norway], 11/42-5/43 (1.4), and 3/45 (Indo-China; 1.4). *Camion de 25 CA* (Vichy) French Dates and RF are 6/40 and 6/41-5/43 (all 1.6); for Free French they are 3-4/42 (1.3) and 10/42-5/43 (1.5).



22. *Autocanon de 40 Contre-Avions(a):* a.k.a. the "GMC Bofor", this was a CCKW-353-120 6×6 GMC truck modified to carry a Bofors AA gun. 32 such vehicles formed the 22nd *Groupe Colonial des Forces Terrestres Antiaériennes*, which provided AA protection for the 2nd DB. Each *batterie* contained eight such *autocanons*. It is not clear whether the 1st and/or 5th DB also used them.



23. *Autocanon de 75 mle 13/34:* Designed in 1913, this was one of the world's first SPAA guns. It essentially comprised a turntable-mounted mle 1897 field piece on a De Dion-Bouton automobile chassis. By the end of WW1 some 160 had been delivered. Production continued after the war, and in the 1930s a modernization program was carried out (e.g., to allow accurate fire at ground targets). No ammunition was carried aboard the vehicle itself; instead, a second vehicle of the same type—but carrying an ammo caisson in place of the gun—accompanied it in action. On May 10th



Vehicle 23

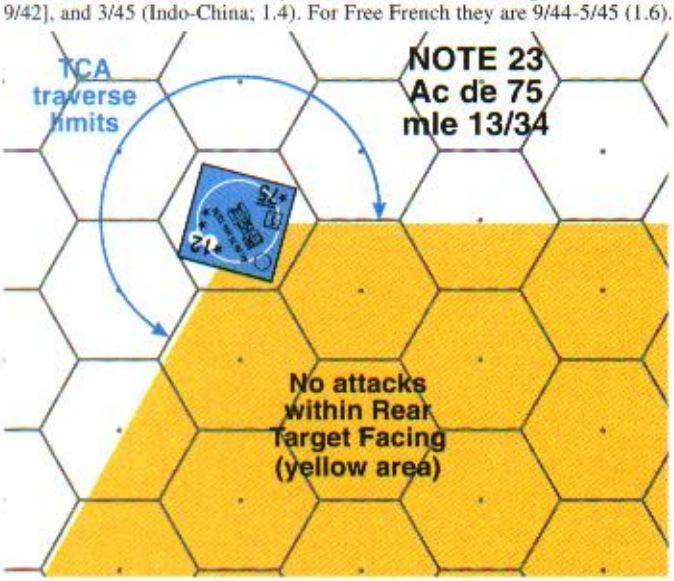
1940, 236 *Autocanons de 75 mle 13/34* were available in France, employed in four-gun *batteries*, with between one and four *groupes* (of three *batteries* apiece) attached to each field army. Eight such *groupes* participated in the defense of Dunkirk. Other *batteries/groupes* were used in several of France's overseas possessions. The Germans still had 45 captured *Autocanons de 75 mle 13/34* in their inventory at the start of June 1944; some of these were seized intact by the Free French, who used them as SP artillery pieces.

†This vehicle requires the use of an Ammo Vehicle (E10.) or Ammo Dump (E10.6) in order to fire at all (i.e., to be considered functioning armament). For the French-color version, use a *Renault AGR2* truck counter as its Ammo Vehicle [EXC: assume its printed MP allotment to be "12"]; for the U.S.-color version, use a *U.S. 2½-Ton* truck.

†The MA may use neither Motion Fire nor Bounding (First) Fire—as signified by "No Bnd(F)F" on the counter.

†The MA may not fire at a target that lies within the mle 13/34's rear Target Facing—nor may the TCA ever coincide with the vehicle's "rear" VCA, even when changing the TCA. These restrictions are signified by "rear TF NA" on the counter. See the accompanying diagram.

†(Vichy) French Dates and RF are 39-6/40 (1.3) [EXC: NA in Norway], 7/40-5/43 (1.4) [EXC: NA in Syria-Lebanon; 1.5 for Madagascar, 5/42 and 9/42], and 3/45 (Indo-China; 1.4). For Free French they are 9/44-5/45 (1.6).





24. *AMC 29:* The design of this vehicle (also known variously as the Schneider P16 M29, AMC Schneider-Kégresse, AMC 29, AMR P16, AMC P16 or simply the P16) dates back to 1923 when the Citroën-Kégresse and Schneider firms collaborated to produce the M23, a fully armored, closed-top halftrack with a multi-faceted MG turret. Successive improvements led ultimately to the P16, of which 100 were built—all for the cavalry. In 1932 its name was changed to *Automitrailleuse de Combat mle 1929*. In May 1940, a total of about seventy AMC 29 were still being used in the 1st, 3rd, 4th, 6th and 7th GRDI of the 5th, 12th, 15th, 3rd and 1st DIM respectively—a squadron of 16 (three five-vehicle platoons) being authorized in each. One squadron of AMC 29 with the 5th RCA saw action against U.S. forces in Algeria, and later as part of the 4th RCA fought against Axis troops in Tunisia.

‡Dates and RF are 39-4/40 (1.4), 5/40 (1.3) [EXC: NA in Norway], 6/40 (1.4), 11/42 (NA vs Axis; 1.3), and 12/42-5/43 (1.4).



25. *Citroën-Kégresse P17 & P19:* The very first halftracks, designed by Adolphe Kégresse for the Tsar of Russia, were built in 1910-1911. After WW1 Kégresse returned to France where he collaborated with Citroën to produce a whole series of halftracks for the French Army in the '20s and early '30s. The most numerous of these was the small Citroën-Kégresse P17, first ordered in 1929 and built mainly for towing the motorized version of the mle 1897 75mm field gun. By 1940 most had been replaced by the Unic P107 (French Vehicle Note 27), but some were being issued as prime movers for the 25mm AA gun, and for the 47mm anti-tank gun in the motorized BDAC of the DLM, DLC, DCR and DIM. Overseas, P17 also remained in use as 75mm artillery tractors. 1,442 P17 *tracteurs d'artillerie légère* were in French service in September 1939. One source of dissatisfaction with the P17 was its inability to transport a gun, its crew and ammunition all in one vehicle. A batch of Citroën-Kégresse halftracks (including a P17) purchased by the U.S. Army in the early 1930s was the direct inspiration for the family of American halftracks used in WW2.

The P19 first appeared in 1930, and was produced in two main types: the VLTT P19B, a cross-country liaison vehicle of which about 600 were built (in 1940 each infantry regiment was authorized six, with others assigned to various motorized, mechanized and armored units); and the VDP P19, designed to transport the *fusiliers portés* (i.e., the "infantry"), machine guns and mortars in the RDP of the cavalry divisions. 547 VDP P19 were in service in September 1939, but by May 1940 were apparently used in only one battalion (each) of the 5th and 2nd RDP in the 1st and 3rd DLC respectively (all other such battalions being transported in either 6×6 or 1½-ton 4×2 trucks).

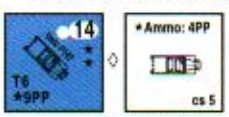
The P17 game piece also represents the P19BT, used for towing (and from 1937 for the *en portée* transport of) the 25mm anti-tank gun in those RDP battalions equipped with P19.

†Use of these vehicles in Norway is NA. *P17* Dates otherwise are 39-5/43, and 3/45 (Indo-China).



26. *SOMUA MCG:* This piece represents the MCG4 and MCG11, used for towing the motorized version of the 155mm C 17 S, and the MCG5 which towed the motorized version of the 105mm L 36 S (and, in certain artillery units in French North Africa, the 75mm mle 1897). All were derived from a SOMUA-Kégresse recovery/repair halftrack of the 1920s. One problem with the MCG was that, despite its size, two were needed to transport a gun along with its crew and ammunition. Other drawbacks were its noisy engine/tracks and relatively slow speed. Nevertheless, by the end of June 1940 some 1,500 such *tracteurs d'artillerie moyen* (inclusive of several variants) had been built. Many were captured by the Germans who, aside from using them as prime movers, modified some for use in the APC role and converted others to armored SP anti-tank guns; these saw action in France in 1944.

†Dates are 5-6/40 [EXC: NA in Norway], 6-7/41, and 11/42-5/43.



27. *Unic P107:* By 1934 the French Army increasingly favored the use of 6×6 wheeled vehicles instead of halftracks, but the artillery still preferred the latter. In 1935 a new Citroën-Kégresse halftrack designated the P107 appeared, and after trials was accepted as a *tracteur d'artillerie légère* for the motorized versions of both the mle 1897 75mm field gun (supplanting the P17 in this role) and the new 105mm howitzer. By the time the first production order was received, however, Citroën had gone bankrupt, so all P107 were built by the Unic firm. By the time of France's surrender 3,276 (inclusive of several variants) had been produced, making the P107 the most common halftrack in French service. Of the large number of P107 captured by the Germans, many were converted to partially/fully armored halftracks and issued to units in France for use in the APC role, and for towing anti-tank guns and light artillery.

†RF is 1.5 only for 5/42 and 9/42 use in Madagascar.

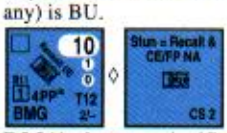


28. *Renault UE:* This *chenillette* ("small tracked vehicle") was originally designed to carry a mortar, machine gun and/or ammunition across bullet-swept ground. By 1940, however, it was used primarily as a supply vehicle, and for towing the 25mm anti-tank guns in the CDAC of certain non-motorized infantry-type divisions and in the CDAC, CA and CRME of the DIM. Its official designation was *Chenillette de Ravitaillement d'Infanterie UE mle 1931 Renault*—sometimes abbreviated to CRI 31R. (The improved mle 37R version, a.k.a. the UE 2, was introduced in the late '30s; both types are equivalent in game terms.) One drawback to the design was its inability to transport a weapon plus its ammunition and crew—the latter having to either ride in another vehicle (in motorized units) or walk (in leg-infantry units). A very small number of UE were built with a partially raised superstructure to house a ball-mounted LMG. About 3,300 UE types had been issued to units in France by May 10th 1940, with another 1,278 in various vehicle parks and depots. A total of some 5,150 of both models had been built by the end of that month. A leg-infantry regiment was normally authorized nine UE, used mainly for transporting supplies but also available for the emergency movement of heavy weapons. A motorized infantry regiment was authorized eighteen



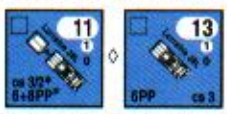
UE, twelve of which were prime movers for the regiment's twelve 25mm anti-tank guns. Thousands of UE were captured by the Germans, who used them not only as supply vehicles and light gun tractors, but also converted some to MG carriers (similar to the French BMG version) or to carry a 37mm anti-tank gun on the superstructure, or to mobile launchers for 280/320mm rockets.

†Each Passenger SMC counts as one Passenger PP, and is considered always CE (as if in a Carrier; D6.84) even if the vehicle's Inherent crew (if any) is BU.



†Optional BMG is available only in 6/40 (RF: 1.6), and in 3/45 (Indo-China; 1.3). If Stunned, the crew may not regain CE status and may not fire the MA, and the AFV is Recalled as per D5.341; these are signified by "Stun = Recall & CE/FP NA" on the counter.

†Vehicle RF is 1.3 through 6/40, 1.4 for 7/40-5/43 [EXC: 1.5 for Madagascar, 5/42 and 9/42], and 1.2 for 3/45 (Indo-China).



29. *Lorraine 38L:* Derived from the Lorraine mle 37 tank supply *chenillette*, the *Véhicule Blindé pour Chasseurs Portés 38 Lorraine* (or VBCP 38L) was a stopgap APC used by the mechanized infantry in the DCR's BCP. It was a most unusual design, in that four members of its passenger squad were carried in the vehicle while the remainder rode in a tracked armored trailer. Of the 240 ordered at the end of 1939, only about 150 had been delivered by the end of May 1940. They were issued to the 5th, 17th and 16th BCP of the 1st, 2nd and 3rd DCR respectively—with the 16th BCP receiving only a partial allotment. The Germans captured more than 300 Lorraine *chenillettes* of all types, and converted most of them to SP guns; see German Vehicle Notes 45 and 82.

†RF is 1.4 for 5/40 and 1.5 for 6/40.

†To depict a Lorraine 38L wreck, use a Lorraine 37L 44 Wreck counter with a Scrounged marker on it.

†C10.4-.41 apply to the trailer except as stated otherwise below. The trailer's AF are "0", and it can be disconnected instantly (even if destroyed) by the vehicle's Inherent Driver without need of MP expenditure or losing Motion status [EXC: disconnecting is NA if the trailer is carrying any Passenger Personnel]. Disconnecting is accomplished by the owner's announcing the action in the vehicle's MPh and flipping the trailer over to the side showing no trailer; the extra MP gained may be used immediately if the vehicle is otherwise able and allowed to do so. A disconnected trailer leaves no separate (not even a Wreck) counter, and hence can neither be hooked up again nor become a burning wreck. TK Case A never applies to a trailer. The vehicle's WGT without the trailer is "7". The trailer is always assumed to be hooked up at the start of a scenario.



†The vehicle's Passenger capacity is 6PP, and the trailer's is 8PP; both may retain unpossessed SW [EXC: all unpossessed SW aboard a disconnected trailer are immediately eliminated]. Upon loading, each Passenger unit must immediately choose to occupy either the vehicle or the trailer (PP permitting). A squad instantly Deploys (without need of a leader/TC) once it has loaded. All Passengers in the *trailer* must be placed above a Trailer Passenger counter, whose sole purpose is to show that they occupy the trailer rather than the vehicle. Should the combined Passenger PP total of a crew, or HS, counter and its possessed SW exceed the *individual* PP capacity of both the trailer and the vehicle, the excess SW must go, unpossessed, into whichever "passenger compartment" it will fit in, and requires the unit carrying it to expend two (instead of the normal one; D6.5) MF to load. Passengers are considered to be stacked together for all purposes [EXC: minefield attacks do not affect the trailer/its-occupants Collaterally; Transfer/Recovery/"movement" directly between the vehicle and trailer are NA; HS cannot Recombine while aboard the vehicle/trailer]. If the vehicle is destroyed, so is the trailer—but in this case each Personnel Passenger in the *trailer* is assumed to automatically pass a D6.9 Survival DR. The cs# of the vehicle is "3", while that of the trailer is "2". A hit on this trailer *can* cause a Collateral Attack. See also French Vehicle Note H.

EX: Assume an "empty" Lorraine 38L (i.e., one that is devoid of Passengers) with its trailer attached. A hero, and a squad carrying a LMG, load onto the Lorraine 38L. The squad now automatically Deploys, with one HS going into the vehicle and the other into the trailer; both the hero and LMG may join either HS in the latter's passenger compartment, or the hero may join one HS and the LMG the other. The ATTACKER must now also place a Trailer Passenger counter so that it is above all of the vehicle's Passengers and beneath all of the trailer's Passengers. If a HS carrying a dm 60mm MTR (3PP) loads onto an "empty" Lorraine 38L, both must occupy the trailer, and a Trailer Passenger counter is placed beneath the two Passenger counters to indicate this. If, however, the HS were carrying a dm 81mm MTR instead, their combined total of nine Passenger PP (5 [HS] + 4 [dm 81mm MTR; C10.3] = 9) would exceed the *individual* PP capacity of both the vehicle and trailer, so the HS would have to expend two MF to load, and if it loads successfully (see the D5.43 example) it will be in either the vehicle or trailer (ATTACKER's choice) while the now-unpossessed MTR will be in whichever passenger compartment the HS does *not* occupy (and that MTR could be unloaded only by Infantry in the vehicle's Location who Recover it while the vehicle is Stopped). In this case the Trailer Passenger counter would go between the HS and dm 81mm MTR counters. If two CE HS are Passengers aboard a Lorraine 38L, any non-minefield Collateral Attack will affect both of them with the same DR (even if the original attack was a Direct Fire ordnance hit on *one* of them) since they are considered to be stacked together.



30. *Lorraine 37L 44:* After the fall of France, the Lorraine factory at Bagnères de Bigorre undertook the construction of a smaller, unarmored version of the company's *chenillette*. Built ostensibly for the forest service, the vehicle was nevertheless designed so that armor plates produced secretly in conjunction with each vehicle could be quickly attached to turn the machine into an APC for use by the Resistance. A record was kept of each vehicle's whereabouts, and in the summer of 1944 they were recalled to the factory and their transformation into AFV begun. Designated the *Tracteur Lorraine 37L 44*, some 30-50 participated in the liberation of southwest France, with about 150 more being made available by the end of the war. In appearance they looked somewhat like the Universal Carriers used by the British.

†The Passenger(s) and Inherent crew of this vehicle are always CE (with all that entails) in the same manner as those in a Carrier (D6.84)—as signified by "Always CE" on the counter.

†Contrary to H1.27, this vehicle may be purchased by the Partisan side for a scenario set in France—assuming all of its RF and Date requirements are met. Purchase for an OB that contains no such "French partisan" squads is NA.

†If the vehicle is manned (or its Removed/Scrounged LMG is being used) by other than "French partisans" or Free French, Captured-use penalties apply.



31. *Carrier AC(b):* After the campaign in the Levant, some of the Vichy 25mm anti-tank guns captured there were mounted on Carriers by Free French Foreign Legion units. These vehicles were subsequently used in North Africa (e.g., during the defense of Bir Hakeim).

†This vehicle is a Carrier; therefore D6.8-.84 apply to it [EXC: it contains an Inherent vehicle-crew instead of a HS, and has no Passenger capacity].

†RF is 1.2 for 3-6/42, 1.5 for 7-11/42, and 1.6 thereafter.



32. *Latil TAR H2:* Latil tractors of various types had been used for hauling French guns since WW1. The TAR H2, adopted in 1934 for towing heavy artillery, featured 4×4 drive and four-wheel steering. By 1940 it was the most common prime mover for the 155mm GPF and was also used for transporting other mobile heavyweights such as the 75mm mle 32 AA gun. Some 600 had been delivered by the time of the French surrender. Afterwards, Latil was taken over by Daimler-Benz, who produced a number of these tractors in a special *Ostfront* version.

†With a WGT of "4.5", a Target Size of "0" and a Passenger capacity of "5PP", this game piece may also be used to represent the Latil KTL4. 163 were built in the latter half of the 1930s, and were used for towing the 105mm L 13 S (French Ordnance Note 14). For DYO purposes, the KTL4 would be available wherever and whenever the L 13 S ART is, but with a RF of .1 (to a maximum of 1.6) > that of the Gun. BPV for use as the KTL4 is "11".

†Dates and RF are 5-6/40 (1.5) [EXC: NA in Norway], 7/40-7/41 (1.6), 11/42-5/43 (1.6), and 3/45 (Indo-China; 1.6).



33. *Laffly S15T:* In 1936 the French Army began ordering a whole series of cross-country wheeled vehicles from the Laffly firm. One of the numerically more important types was the S15T, of which 396 were built for towing 75mm field guns and 105mm field howitzers. By May of 1940 all S15T had been issued to various motorized artillery *groupes*. Lafflys were 6×6 vehicles (the V15T was a 4×4) of advanced design, with fully independent suspension, two small anti-ditching wheels beside the radiator, and two small anti-bellying wheels below the front seats. The Germans put to use all they could capture, and kept at least one model (the V15T—French Vehicle Note 34) in production. Some German units later used the S15T as a prime mover for the PaK 40 75mm anti-tank gun.

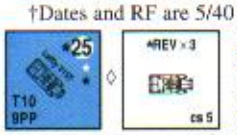
† Dates and RF are 39-1/41 (1.5) [EXC: NA in Norway], and 3/45 (Indo-China; 1.4).



34. *Laffly S20TL:* The *Voiture de Dragons Portés S20TL* was Laffly's replacement for the Lorraine 28 truck previously used to transport the *fusiliers portés* (i.e., the "infantry") and heavy weapons in the RDP of each DLM. Five main versions were produced: command, squad transport, MG transport, mortar transport, and prime mover for the 25mm anti-tank gun (early versions towed the gun; later ones carried it *en portée*). "L" in the name stood for *Long*, indicating a lengthened chassis. A total of 935 S20TL trucks were ordered through the end of May 1940, of which about 630 were delivered—the last 190 or so actually built by Hotchkiss. They were issued to the 1st and 11th RDP of the 2nd and 3rd DLM respectively, to the 7th RDP attached to the 4th DCR, and perhaps to a battalion in one or two of the RDP in DLC. The *portée* version was also issued to most (if not all) other RDP.

†With a WGT of "6.5", a Target Size of "0", and truck-type (instead of armored-car-type—see French Vehicle Note J) MP expenditures, this game piece may also be used to represent the Lorraine 28 truck, which in 1940 was still being used for troop transport in the 4th RDP of the 1st DLM, and possibly in one or two RDP battalions in DLC. Apparently they partially equipped the 16th BCP of the 3rd DCR as well. BPV for use as the Lorraine 28 is "12".

†Dates and RF are 5/40 (1.3) and 6/40 (1.4).



35. *Laffly V15T:* This 4×4 vehicle was accepted in August 1938. 100 were delivered during the winter of 1939-40, and about a hundred more—built by Licorne—were produced in May-June of 1940. They were used for towing 25mm anti-tank guns in some/all EDAC. Some German units later used the V15T as a prime mover for the PaK 38 50mm anti-tank gun. The game piece also represents the Latil M7T1, a rival 4×4 design first ordered in February 1939. Its intended use was for towing the 25mm anti-tank guns in the CDAC of the DIM, but as it did not become available until March 1940 it was instead used to transport the 81mm mortars and 25mm anti-tank guns in the CE. About 130 were delivered prior to the armistice.



36. *Peugeot 202, Citroën 23, & Renault AGR2:* Like other nationalities, the French Army utilized many different types of softskin vehicles (hence only a token representation is made in the game). In the automobile class over 4,000 Simcas, Renaults and Peugeots were used, plus tens of thousands more cars requisitioned from the public. One car that could be armed for use in combat was the Peugeot 202, a petite four-seater whose convertible version sometimes carried a LMG. About 900 were delivered. They were often employed in GRDI and GRCA, and as replacements for motorcycles and sidecars in some units. In the light truck (*camionnette*) class, the most common vehicle was the 1½-ton Citroën Type 23. Ordered at the time of mobilization in September 1939, about 12,500 were delivered through June of 1940. Some other light trucks used were the 1½-ton Renault ADK and AGC, and the 1.2-ton Peugeot DK5J. One of the most common medium trucks in French service was the 3½-ton Renault AGR2, a cab-over-engine design of which approximately 3,150 were delivered. This game piece also represents the 3½-ton Citroën Type 45, which was produced in greater numbers (about 4,000 in all) but was sometimes used as a SPAA vehicle. Both types were also used as *porte-canons*; i.e., to carry various kinds of artillery pieces *en portée*.

The French Army employed some 400,000 cars and trucks in 1940; almost all were 4×2 civilian designs, and about 75% were requisitioned from civilian use. The overall total included a number of trucks purchased from the U.S., including 1,500 Dodge VH-48 3-ton 4×2, several hundred Studebaker K30 5-ton 4×4, and the GMC ACK 353 1½-ton 4×4 (the last used in the 5th DLC).

†When the *Peugeot 202* is bogged, one (only) CX squad (even a prisoner—but not a Guard) on foot expending ≥ four MF in the vehicle's Location (and declared to be assisting its unbogging) thereby allows the owning player to subtract two (one per crew or HS) from the colored dr of its immediately subsequent Unbogging DR.

†The *Peugeot 202's* AAMG is always available with a RF of 1.3, and may be Removed. If equipped with the AAMG (even if Removed), its printed Passenger capacity is 4PP.

†Increase the initial RF by .1 for use after 6/40. Availability is NA for 6/43-2/45 inclusive.

LEND-LEASE VEHICLES

From November 1941 through V-J Day the United States supplied the French with military and civilian aid worth (at the time) more than $2.8 billion, including 1,406 tanks, 3,941 other combat vehicles, 27,176 trucks, and 1,523 additional vehicles. In addition, Britain and Canada provided goods and services totalling an estimated $460 million. In 1943-44, under the ANFA rearmament program, the U.S. used Lend-Lease equipment to outfit eight French divisions (five infantry and three armored) plus various supporting units. With a few exceptions, these formations were organized along the same lines as their U.S. counterparts.

The following Listing denotes those vehicles included in *YANKS* or *WEST OF ALAMEIN* that may be used in a Free French scenario OB [EXC: an illustration of the counter below indicates that the vehicle is provided in *CROIX DE GUERRE* in other than its previous nationality color (e.g., the M3A3 Light Tank)]. All pertinent data and Notes relating to the characteristics and game capabilities of each vehicle apply as given for it originally in *YANKS/WOA*, except as noted otherwise (see also F.8A-.9). This Listing does *not* include vehicles that are available to the Free French but not included in any form in *YANKS/WOA* (e.g., the Carrier AC). For a complete list of all Free French vehicles, see the Free French Vehicle Rarity Factor Chart.

#	Name & *Type*	Color	Dates	RF	Notes
5	M3A3 *LT*†	U.S.	12/43-5/45	1.2-1.1†	37†,U
†	M5A1 *LT*	U.S.	44-5/45	1.3-1.2†[1]	37†[1],Y†
†	Crusader II *MT*	British	10/42-5/43	1.1	38,W†
†	Crusader III *MT*	British	10/42-5/43	1.2	38,W†
†	M4 *MT*	U.S.	9/44-5/45	1.0	39,Y†
†	M4A1 *MT*	U.S.	10/44-5/45	1.5	39†,Y†
†	M4A2 *MT*†[1]	U.S.	8/44-5/45	.9	39†[1],Y†
†	M4A3(75)W *MT*	U.S.	10/44-5/45	1.3	40,Y†
†	M4A3(76)W *MT*	U.S.	10/44-5/45	1.5	40,Y†
†	M4A3(105) *MT*	U.S.	10/44-5/45	1.4	40,Y†
†	M4 Tankdozer *MTv*	U.S.	8/44-5/45	1.3	40,Y†
†	M10 GMC *TD*	U.S.	8/44-5/45	1.2	41,Y†
†	Daimler *SC*	British	6/41-11/43	1.5-1.3†[1]	42†[1],W†
†	M3A1 *SC*†[1]	U.S.	12/43-5/45	1.3	43†[1],Y†
†	M20 *SC*†[1]	U.S.	8/44-5/45	1.5	43†[1],Y†
†	Marm.-Herr. III ME *AC*	British	10/42-5/43	1.1	44,W†
†	Marm.-Herr. IIIv *AC*	British	10/42-5/43	1.2	44,W†
†	Humber II *AC*	British	10/42-5/43	1.4	45,W†
†	M8 *AC*	U.S.	12/43-5/45	1.0	43,Y†
†	M8 HMC *SPA*	U.S.	12/43-5/45	1.2	46,Y†
†	M7 HMC *SPA*	U.S.	8/44-5/45	1.3	46,Y†
†	T30 HMC *ht*	U.S.	4/44-5/45	1.6	47,Y†
†	M2 *ht*	U.S.	12/43-5/45	1.3	47,Y†
†	M3 *ht*	U.S.	12/43-5/45	1.5	47,Y†
6	M5 *ht*	U.S.	44-5/45	1.3-1.0†	47†,U
3	M5A1 *ht*†	U.S.	44-5/45	1.5-1.2†	47†,U
3	M9 *ht*†	U.S.	44-5/45	1.2	47†,U
2	M5(MMG) *ht*†	U.S.	8/44-5/45	1.3	47†,U
2	M5(HMG) *ht*†	U.S.	8/44-5/45	1.4	47†,U
†	M21 MC *ht*†[1]	U.S.	8/44-5/45	1.4	47†[1],Y†
†	M4A1 MC *ht*†	U.S.	10/44-5/45	1.5	47†,Y†
†	Carrier A *APC*†[1]	British	2/42-11/43	1.1-.9†[1]	48†[1],W†
†	Carrier B *APC*†[1]	British	2/42-11/43	1.2-1.0†[1]	48†[1],W†
†	Carrier C *APC*†[1]	British	2/42-11/43	1.3-1.1†[1]	48†[1],W†
†	Carrier, MMG A *APC*†[1]	British	3/42-11/43	1.2-1.4†[1]	48†[1],W†
†	Quad FAT *tr*	British	2/42-11/43	1.3	49,W†
†	Jeep(a) *tr*	British	5/42-11/43	1.5-1.3†[1]	50†[1],W†
†	15-cwt *tr*	British	9/40-11/43	1.0	50,W†
†	30-cwt *tr*	British	9/40-11/43	1.1	50,W†
†	3-Ton *tr*	British	9/40-11/43	1.2	50,W†
†	Jeep *tr*	U.S.	12/43-5/45	1.0	51,Y†
†	Jeep GPA *atr*	U.S.	12/43-5/45	1.3	51,Y†
†	¼-Ton *tr*	U.S.	12/43-5/45	1.2	51,Y†
†	1½-Ton *tr*	U.S.	12/43-5/45	1.4	51,Y†
†	2½-Ton *tr*	U.S.	12/43-5/45	1.3	51,Y†
†	7½-Ton *tr*	U.S.	12/43-5/45	1.6	51,Y†



H



37. *M3A3 & M5A1 Light Tanks:* A total of 651 U.S. light tanks were Lend-Leased to the Free French. By D-Day this included 273 M3A3 and 230 M5A1 (see U.S. Vehicle Note 5). The entire light tank complement of the 2nd DB consisted of M3A3 when it landed in France, while the 1st and 5th DB (as well as three of the five armored recon battalions organic to Free French infantry divisions) had a mixture of M3A3 and M5A1. The two non-divisional armored recon battalions—the 1st and 2nd *Spahis Algériens*—were also equipped with M3A3 but not M5A1.

†*M3A3* MA must use red TH numbers in scenarios set prior to 1944—as signified by "Red TH#s (pre 44)" on the counter. U.S. Vehicle Notes F and Y also apply to the Free French *M3A3*.

†*M3A3* RF is 1.2 for 12/43-7/44 and 1.1 thereafter. *M5A1* RF is .1 > that of the M3A3 for the corresponding Date.

38. *Crusader II & III Tanks:* In the autumn of 1942, the 1st Free French Tank Company (*Compagnie de Chars*) was re-equipped with 14 Crusader tanks. Each *section* had two with 2pdr (40mm) main armament and one Crusader III (British Vehicle Notes 9 and 10).

39. *M4, M4A1 & M4A2 Medium Tanks:* 382 M4A2 (U.S. Vehicle Note 10) and 274 M4A4 (which in the U.S. color is represented in the game by the M4; see British Vehicle Note 14) were Lend-Leased to the Free French. Of these, 368 and 268 respectively had been provided by June 1944. They equipped the three tank battalions in each of the three DB, with the 2nd DB receiving only M4A2 while the 1st and 5th DB used both types. Later, small numbers of M4A1 (U.S. Vehicle Note 9) were made available to the DB via in-theater transfer.

†U.S. Vehicle Note Y also applies to the Free French *M4A2*.

40. *M4A3(75)W, M4A3(76)W & M4A3(105) Medium Tanks, & M4 Tankdozer:* During the course of the campaign in Europe, a number of M4A3(75)W, M4A3(76)W and M4A3(105) (U.S. Vehicle Notes 13, 16 and 17 respectively) were transferred in-theater to the Free French. Given that 1944-45 Free French tank battalions used U.S. tables of organization, it is a fairly safe assumption that they also received tankdozers.

41. *M10 GMC:* Initially the U.S. Army wanted to issue M3 GMC halftracks (U.S. Vehicle Note 34) to the Free French, since so many were available in North Africa. The French protested vigorously, however, and in the end new M10 (U.S. Vehicle Note 23) were shipped from America. By mid May of 1944, 115 had been Lend-Leased for use in the TD battalion in each DB.

42. *Daimler Scout Car:* A small number of these (British Vehicle Note 42) were used by the Free French—e.g., the 1st RMSM (*Régiment de Marche de Spahis Marocains*) contained two in January of 1943.

†RF is 1.5 for 6/41-1/42, 1.4 for 2-9/42, and 1.3 for 10/42-11/43.

43. *M3A1 & M20 Scout Cars, & M8 Armored Car:* An undetermined number of these AFV (U.S. Vehicle Notes 39, 40 and 42 respectively) were supplied to the Free French (though a fair guess regarding the M8 would be about 550). One major difference between the U.S. infantry division's table of organization and that of a U.S.-equipped Free French infantry division was the latter's armored reconnaissance battalion, which was roughly triple the size of the mechanized cavalry recon troop in the U.S. division. The M8 were issued to the ten Free French armored recon battalions (one per infantry division, one per DB, and two non-divisional), as were at least some of the M3A1 and probably the M20.

†Each Free French *M3A1* scout car's at-start HS or crew Passenger (see U.S. Vehicle Note 39) is a 2-4-8 or 2-2-8 respectively.

†Contrary to U.S. Vehicle Note Z, the BAZ carried aboard the Free French *M20* scout car is always a BAZ 44(a) (F.9).

44. *Marmon-Herrington III ME & IIIv Armoured Cars:* In the fall of 1942 the 1st RMSM (*Régiment de Marche de Spahis Marocains*) became an armoured car unit. 21 Marmon-Herrington III (British Vehicle Note 48) formed the bulk of its vehicles, with three per platoon and four platoons per squadron. Some mounted non-standard ordnance (British Vehicle Note 49).

45. *Humber Armoured Car:* A total of three Humber armoured cars (British Vehicle Note 50) were listed as being used in the 1st and 2nd Squadrons of the 1st RMSM in January 1943.

46. *M7 HMC & M8 HMC:* Excluding those shipped to the British, 179 M7 HMC (U.S. Vehicle Note 44) were Lend-Leased. It is quite possible that all were sent to the Free French, who used them in the armored artillery battalions of their three DB. (As per the U.S. table of organization, each such division would have required 54 M7.) M8 HMC (U.S. Vehicle Note 43) were used in Free French tank, armored infantry and armored recon battalions. To fully equip these units would have required about 140 M8.

Vehicle Note A



47. *U.S. Halftracks:* The Free French received > 1,400 U.S. halftracks, most of which were of the M5 and M9 types built by the International Harvester Co. solely for Lend-Lease purposes. They were employed by the Free French in the same way as U.S. forces used them; e.g., each DB contained three armored infantry battalions fully equipped with halftracks (see U.S. Vehicle Notes 29 and 30). Fifty-four M21 MC and eight T30 HMC (U.S. Vehicle Notes 33 and 35) were used, the latter by one of the armored recon battalions. The M4A1 MC (U.S. Vehicle Note 32) were apparently in-theater transfers to cover losses of M21. Some M3 GMC and T28E1 MGMC (U.S. Vehicle Notes 34 and 37) were turned over to the Free French in Tunisia, but evidently were used by them only for training.

†Regardless of the scenario date, each Free French *M5A1* halftrack carries a BAZ 44(a) (F.9). Otherwise, this AFV is treated like the U.S. M3A1 halftrack [EXC: see F.9 for Scrounging/Removing its MG].

†The MG armament of the Free French *M9* halftrack is treated like that of the M2 halftrack [EXC: see F.9 for Scrounging/Removing its MG].

†Each *M5(MMG)* and *M5(HMG)* halftrack's at-start Passenger squad (see U.S. Vehicle Note 30) is a 4-5-8 (or its two HS). Otherwise, these two AFV are treated like the U.S. M3(MMG) and M3(HMG) [EXC: see F.9 for Scrounging/Removing their MG].

†Each *M21/M4A1 MC* halftrack starts the scenario with an Inherent infantry-crew (i.e., a 2-2-8) in lieu of a vehicle-crew.

†*M5* RF is 1.3 for 1-7/44 and 1.0 thereafter. *M5A1* RF is .2 > that of the M5 for the corresponding Date.

48. *Carriers:* Various types of Carriers (British Vehicle Notes 64-65) were used by the Free French—apparently excluding the mortar versions. The 1st BFL had 63 Carriers at Bir Hakeim in May 1942; each of its infantry battalions contained 14-18 (normally in five-vehicle *sections*), each of which mounted a French MG or 25mm anti-tank gun.

†Each Free French Carrier [EXC: the Carrier AC(b); see French Vehicle Note 31] begins the scenario containing an Inherent 2-4-8 HS. In a scenario set prior to 5/43, any MG Scrounged/Removed from a Free French Carrier (or its wreck) takes counter form as a British-color MG(f) of the same FP that it had as an Inherent MG.

†Decrease *Carrier A, B* and *C* initial RF by .2 for use in/after 5/42. *Carrier, MMG A* RF is 1.2 for 3-6/42, 1.3 for 7/42-5/43, and 1.4 for 6-11/43.

49. *Quad FAT:* Forty or more of these prime movers (British Vehicle Note 80) were issued to the Free French for the transport of 25pdr field pieces. Some of them were used instead for towing the French 47mm anti-tank gun.

50. *British Jeeps & Trucks:* The British provided a number of different types of transport vehicles to Free French units, which in the North African desert were completely motorized.

†*Jeep(a)* RF is 1.5 through 9/42, 1.4 for 10/42-5/43, and 1.3 thereafter.

51. *U.S. Jeeps & Trucks:* The Free French were Lend-Leased 15,880 transport vehicles of ≤ one ton, 4,402 of 1½-2 tons, 5,806 2½-tonners, and 1,088 of > 2½ tons. Despite these numbers, there were periodic complaints of shortages—especially in regard to Jeeps (the GPA amphibious version often being substituted in Italy), and trucks of 1½- and 2½-ton capacity.

FRENCH MULTI-APPLICABLE VEHICLE NOTES

A. The CMG may be repositioned as a 2-FP AAMG. This can be done only by placing an AA counter on the AFV at the end of any friendly fire phase (not MPh) in which its Inherent crew is CE and could have fired the MG (even if malfunctioned) but did not. This AAMG may fire only at a target that lies within the AFV's TCA—as signified by "AAMG: TCA only" on the counter. The AAMG may be repositioned as the CMG by using these same principles to remove the AA counter.

ERRATA: Any functioning CMG that may be repositioned as an AAMG may be Scrounged, regardless of the vehicle's/wreck's nationality.



Vehicle Note B

B. The BMG receives an extra +1 DRM when firing at a moving/Motion target—as signified by a white dot behind the BMG factor on the counter.

ERRATA: Scrounging such a Fixed-Mount (D1.81) BMG is NA, regardless of the vehicle's/wreck's nationality.

C. The CE DRM is +1 vs Indirect Fire, as well as vs Direct Fire that emanates from within the *turret's* rear Target Facing—as signified by "CE: +1 RT" on the counter.

D. Reverse movement costs this vehicle twice its normal hex-entry cost—as signified by "REV×2" on the counter.

E. Availability is limited to use in Europe [EXC: Norway], regardless of whether the counter is French, British or U.S. color.

F. If this counter is illustrated in the British or U.S. color in its Vehicle Note, it may be used in a Free French OB as per F.8A-.8C. The following apply regardless of this counter's nationality color(s), except as stated otherwise:

- "(a)", "(b)" or "(f)" in the piece name stands for "American", "British" or "French" respectively, for ESB (D2.5), Hammada Immobilization (F3.31), Sand Bog (F7.31), etc., purposes;
- "(a)" or "(b)" also indicates that the MA uses black TH numbers (unless captured), as signified by "Black TH#s" on the counter;
- "(a)" also indicates that this vehicle is treated as Captured if crewed by *other than* Free French or U.S. [EXC: by other than Vichy French, for the *French*-color version of the AM Dodge(a)];
- "(b)" also indicates that this vehicle is treated as Captured if crewed by *other than* Vichy French or British (including Free French, etc.; A25.4);
- "(f)" also indicates that the MA always uses red TH numbers *if* this vehicle is an AFV, that a MG Scrounged from this vehicle (or its wreck) takes counter form as a British-color LMG(f) (with Captured-use penalties unless being fired by Free/Vichy French; F.8A), and that this vehicle is treated as Captured if crewed by *other than* Free/Vichy French (F.8C).

G. If armed, this vehicle has an Inherent crew and thus a CS# instead of a cs#.

H. Prior to setup, and in addition to the normal A2.9 10% Deployment allowance, the French player may freely Deploy a number of squads sufficient to provide one Passenger HS for each *C-K P19*, and two Passenger HS for each *Lorraine 38L*, in his OB—excluding each such vehicle that will set up towing-a-Gun/carrying-a-crew. These HS may Recombine (and the resulting squads may Deploy) as if they were Carrier HS and these vehicles were Carriers (D6.82).

I. Before any type of Immobilization result *due to an attack* [EXC: one caused by mines, or by a Direct Fire hit vs the front or rear Target Facing] takes effect vs this AFV, a subsequent dr must be made. If this dr is ≤ 4, Immobilization occurs; if ≥ 5, it does not. This is signified on the counter by "Immob: dr ≤ 4".

J. This vehicle is treated as an *armored car* for movement (and all related) purposes [EXC: it may not cross a hedge; Reverse movement costs three times its normal hex-entry cost, as signified by "REV×3" on the counter].

K. This AFV may retain any unpossessed SW aboard it.

L. Ammunition of ≥ 100mm being carried by this vehicle (C10.13) reduces its Passenger capacity by 4 (not 8) PP—as signified by "Ammo: 4PP" on the counter.

M. The MA may use neither Bounding *First* nor Motion Fire—as signified by "No Bnd FF" on the counter.

R. This AFV was equipped with a radio that could send/receive only morse code. It is therefore treated as a radioless AFV, but is assumed to have a morale of "9" for movement NTC (D14.23) purposes—as signified by "®9" on the counter.

U. Provided in *CROIX DE GUERRE*. Since it is U.S.-built, this vehicle does *not* suffer Captured penalties if manned by any U.S. Inherent SMC/MMC/Driver.

W. Provided in *WEST OF ALAMEIN*.

Y. Provided in *YANKS*.

AA. The MA has AA capability—as signified by "MA: AA" on the counter.

FRENCH ORDNANCE NOTES

For the sake of brevity, the following French acronyms are used herein:

BCP (*Bataillon de Chasseurs Portés*): mechanized infantry battalion of DCR

BDAC (*Batterie Divisionnaire Antichar*): divisional 47mm or 75mm anti-tank battery

BFL (*Brigade Française Libre*): Free French brigade

CA (*Compagnie d'Accompagnement*): support company of (motorized) infantry battalion

CDAC (*Compagnie Divisionnaire Antichar*): divisional 25mm anti-tank company of (motorized) infantry division

CE (*Compagnie d'Engins*): heavy-weapons company of BCP

CRE (*Compagnie Régimentaire d'Engins*): heavy-weapons company of infantry regiment

CRME (*Compagnie Régimentaire Motorisée d'Engins*): heavy-weapons company of motorized infantry regiment

DCR (*Division Cuirassée*): armored division

DIM (*Division d'Infanterie Motorisée*): motorized infantry division

DLC (*Division Légère de Cavalerie*): light cavalry division

DLM (*Division Légère Mécanique*): light mechanized division

EDAC (*Escadron Divisionnaire Antichar*): divisional 25mm anti-tank squadron of DLC or DLM

EME (*Escadron Mitrailleuses et Engins*): heavy-weapons squadron of GRCA, GRDI, cavalry regiment or RDP battalion

GRCA (*Groupe de Reconnaissance de Corps d'Armée*): corps reconnaissance group

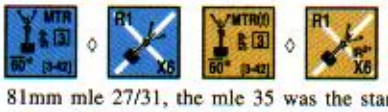
GRDI (*Groupe de Reconnaissance de Division d'Infanterie*): reconnaissance group of (motorized) infantry division

RAM (*Régiment d'Automitrailleuses*): armored car regiment

RDP (*Régiment de Dragons Portés*): vehicle-borne dragoon regiment (usually of DLC or DLM)



1. *Lance-Grenades de 50 mle 37(f):* Ordered at the end of 1939, one LG was supposed to replace the four rifle grenade-launchers (one per squad) in the infantry *section* (i.e., platoon). It used a fixed 45° elevation, with range adjusted by altering the diameter of propellant-gas vents, and was trigger-fired. 20,000 had been manufactured by June 1940, but very little ammunition was available. It seems that the only ones in service at the time of the German invasion were a dozen installed in special rotating, retractable armored cupolas in the Maginot Line. Some LG were used by French infantry near the end of the war; e.g., the 18th RCC (*Régiment de Chasseurs à Cheval*) had twelve during its campaign in southwest France in 1945. (This was one of several units raised in late 1944 using ex-Resistance fighters and a mixture of U.S., British, French and German equipment.) The LG also saw action after WW2 vs the Viet Minh in Indo-China.



2. *Mortier de 60 mle 35:* Designed by the Edgar Brandt firm and derived from the 81mm mle 27/31, the mle 35 was the standard light mortar of the French Army. One was normally issued per (motorized) infantry *compagnie*, and per cavalry/motorcycle reconnaissance *escadron* (squadron) in GRDI and GRCA. In the DLC, the 5th (heavy weapons) squadron of each cavalry regiment was authorized a *peloton* (platoon) of four, while each motorcycle *escadron* in the RAM (as well as each combined motorcycle-AMR (see French Vehicle Note 2), and each motorized infantry, *escadron* in the RDP) had one 60mm mortar. In May 1940, some 4,940 (possibly excluding those in France's overseas possessions) were in service. In November 1942, 360 were present in Vichy North Africa. Copies of the mle 35 were produced in the U.S.A. (U.S. Ordnance Note 1), China (Chinese Ordnance Note 3) and Romania. The mle 35 fired both light (2.9-lb.) and heavy (4.9-lb.) HE bombs. See also French Ordnance Note 22.

†IR ammunition becomes available in 1942, but only for the Free French—as signified by "IR²⁺" on the *British-color* version.

‡Unlike the U.S. 60mm mortar [including its British-color "(a)" version; F.9], French 60mm mortars [including their British-color "(f)" version; F.8C] cannot be exchanged for OBA.

†Dates and RF for Free French DYO purchase purposes are 6-7/41 (1.3) and 5-11/43 (1.4); for other Dates, use the Free French SW Allotment Chart.



FRENCH ORDNANCE LISTING

#	Name	Type	CSize	ROF (IFE)	B#	Range	M#	TSize	Dates	Special	BPV	RF	Notes
4	LG de 50 mle 37(f)	MTR	50	2		2-11	–	–	45	2PP, crewed†	17	1.5	1,A,B,C†,E
4+*4*	Mortier de 60 mle 35	MTR	60*	3		3-42	–	–	37-3/45	5PP, IR²-†, no OBA†	20†	1.3-1.4†	2†,A,B,V
3+2	Mortier de 81 mle 27/31	MTR	81*	3		3-71	11	+1	30-3/45	NT, QSU, s8	28	1.3-1.1†	3†,A,B,D,V
4	Fusil Antichar Boys	ATR			†	12	–	–	39-3/45†	1PP	4	1.5-1.0†	4†,B
4	Canon AC de 25 SA-L mle 34	AT	25LL	3		45	12	+1	35-3/45†	NT, QSU	25	1.2-1.3†	5†,B,P
2+2	Canon AC de 47 SA mle 37 APX	AT	47L	3	*11*†	162	10	+1	39-5/43†[1]	NT, QSU, APCR only†[1]	28†	1.3-1.5†	6†[1],B,G†,P,V
2	Canon de 75 AC mle 97/35	AT	75	1		277	7	0	35-6/40	ST,LF [NT],HE7,s6,h-d,no shield	28	1.5	7,E
4	Canon de 37 mle 16 TR	INF	37*	2		60	–	–	17-3/45	5PP (3PP dm), crewed†	25	1.3-1.2†[1]	8†[1],A,C†
2	Canon de 65 M mle 06	INF	65*	2	11	162	10	+1	06-3/45†	NT, QSU, no Gunshield, h-d	23	1.6-1.4†	9†,A,P
2	Canon de 75 M mle 28	ART	75*	1		225	9	0	28-3/45†	NT, QSU, s6, AP5, h-d	23	1.5-1.3†	10†,A,P
4	Canon de 75 mle 1897	ART	75	1		277	8	0	00-3/45†	NT, QSU, s8	33	1.3-1.4†	11†,B,P
2	Canon de 105 M mle 28	ART	105*			196	**8**	0	29-3/45†	NT, h-d	28	1.6-1.5†	12†,A,P
2	Canon de 105 C mle 35 B	ART	105	1	11	268	**7**	0	35-6/40†	NT	31	1.4	13,E,F†
2	Canon de 105 L mle 13 S	ART	105			330	**5**	–1	14-5/43†	NT	29	1.4-1.6†	14†,P
2	Canon de 105 L mle 36 S	ART	105L			410	**4**	–1	37-6/40†	NT	28	1.6	15,E,F†
2	Canon de 155 C mle 17 S	ART	155*		11	282	**6**	–1	16-3/45†	NT, s8	39	1.4-1.6†	16†
2	Canon de 155 GPF	ART	155		11	465	**–1**	–1	17-5/43†	NT, RFNM, no IF	30	1.5-1.6†	17†
2+*1*	Mitr. de 13.2 CAJ mle 30	AA	12.7	3 (12)	*11*†	†[1]	**6**	+1	31-5/43†[1]	T, 2 TK DR†[1], Towing NA†[1]	28†	1.3-1.6†[1]	18†[1],B,G†,V
2	Mitr. de 20 CA mle 39 O	AA	20L	3 (4)		125	12	+1	5/40-3/45†	T, LF [NT, 20†, 2 ROF, B11]	29	1.3-1.6†	19†
2	Canon Auto. de 25 CA mle 38	AA	25LL	3 (6)	*11*†	187	9	+1	39-5/43†[1]	T	25†	1.4-1.5†[1]	20†[1],G†
2	Canon de 75 CA mle 32	AA	75L	2			4	–1	35-3/45†	T, NM	27	1.5-1.6†	21†



3. *Mortier de 81 mle 27/31:* Designed by the Edgar Brandt firm in 1927 and further improved four years later, this mortar became the classic design of the era, being copied during the 1930s and '40s by at least a dozen countries. It fired both light (7-lb.) and heavy (14.3-lb.) HE rounds, as well as smoke. In 1940 about 5,000 were in service in France, with two (i.e., one *groupe*) normally allotted per (motorized) infantry battalion (in the heavy weapons platoon [*section d'engins*] of its CA) and another *groupe* in the regiment's CRE (two *groupes* [one *section*] in the CRME if the regiment was motorized); these mortars were usually carried in wagons, even in motorized infantry regiments. In DLC and DLM, each RDP had two *groupes* (one *peloton*) in the EME of each of its battalions. The BCP of each DCR had a *section* of four in its CE. MG battalions were authorized three *groupes* each. A number of mle 27/31 were also used in casemates and armored cupolas in the Maginot Line, and by the Free French in North Africa (e.g., the 1st BFL had 20 at Bir Hakeim in May 1942—four per infantry battalion and four in the reserve company). In November 1942, 600 were present in Vichy North Africa.

†(Vichy) French Dates and RF are 39-5/43 (1.2) and 3/45 (Indo-China; 1.2). For Free French they are 9/40-5/41 (1.3), 6-7/41 (1.4), 8/41-4/43 (1.1), and 5-11/43 (1.5).

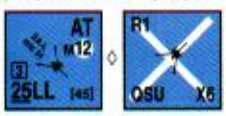


4. *Fusil Antichar Boys:* This was the standard British ATR, a number of which were issued to certain GRDI and GRCA due to the shortage of 25mm anti-tank guns. When present, they were allocated to the EME of these units. The Boys' violent recoil and mediocre armor penetration made it unpopular among its French users. Free French units fighting with the British were issued Boys ATR, and the British also supplied 446 to the Vichy troops fighting the Axis in Tunisia.

French troops in Indo-China possessed a goodly number of pre-WW2 Russian ATR. Some had originally been brought into France by Republican troops during/after the Spanish Civil War, and the rest had been purchased from China. These Russian ATR were models (most likely of several different designs) that had been rejected for use by the Red Army.

†For use in Indo-China, treat this ATR as having "B11".

†Availability, Dates and RF are: Europe [EXC: Norway], 39-6/40 (1.5); Indo-China, 9/40, 1/41 and 3/45 (all 1.0); and Tunisia, 1-2/43 (1.4), 3/43 (1.3) and 4-5/43 (1.2).



5. *Canon Antichar de 25 SA-L mle 34:* Built by Hotchkiss, the SA-L 34 was accepted in 1934 as the standard battalion and regimental anti-tank gun of the French Army. By the end of June 1940, some 4,500 were in service. Production lagged behind demand, however, so the SA-L 37 (somewhat lighter, but equivalent in game terms) was introduced to supplement it; about 1,600 of this version were delivered prior to the armistice. In service it was found that the light weight of the SA-L made it rather flimsy for high-speed towing, so it was often horse-drawn or (primarily in motorized/cavalry units) carried *en portée*. The heavy-weapons *section* of a CA was authorized a *groupe* of two, with another six (in two three-gun *sections*) in the CRE/CRME, and a further *section* in the EME of the GRDI. Each cavalry regiment in the DLC, and each battalion of the RDP in the DLC and DLM, had two *groupes* of SA-L in its EME. Each (motorized) infantry division was authorized a CDAC, and each DLC and DLM was authorized an EDAC, of twelve SA-L. The BCP of each DCR contained four SA-L *sections* in its CE. GRCA were authorized two *groupes* (plus, if non-motorized, a third in their *groupe d'escadrons á cheval* horse-cavalry element). MG battalions were authorized three *sections* each. 75+ modified 25mm anti-tank guns were emplaced in various types of Maginot Line fortifications. The number of SA-L available in May 1940 was several thousand short of the Army's full requirement, leaving many infantry-type divisions with only part of their anti-tank gun allotment and a few with none at all. In November 1942, 101 SA-L were present in Vichy North Africa; there (or at least in Tunisia), the CA had no anti-tank *groupe*—instead, most SA-L were used in (apparently independent) six-gun *compagnies/batteries*, though some infantry-type regiments contained one *section*. See also French Ordnance Note 23.

†Dates and RF are 39-6/40 (1.2) [EXC: 1.3 for Norway], 7/40-5/43 (1.3) [EXC: NA in Madagascar], and 3/45 (Indo-China; 1.3).



6. *Canon Antichar de 47 SA mle 37 APX:* First ordered in 1936 from the Puteaux arsenal (APX), this weapon fired a tungsten-core AP round, making it the world's most powerful purpose-built anti-tank gun when it entered service. (Its very existence was so secret that delivery to units was withheld until September 1939.) 841, including 135 in the general reserve, were in France when the Germans invaded; however, a lack of sufficient ammunition kept many from ever being issued. Each non-alpine division in France was authorized a BDAC comprising twelve (ideally, but in practice only eight) SA 37 APX. In reality though, most BDAC contained only six (or sometimes four) such guns—while others were equipped with converted 75mm pieces instead (see French Ordnance Note 7), and some divisions had no BDAC at all. Oddly, the BDAC was usually assigned to the divisional artillery, thus in effect placing it at the rear of the division—which in conjunction with its general scarcity gave rise to the nickname "ghost gun" for the weapon because it was so rarely seen by front-line troops. The SA 37 APX in non-motorized infantry divisions were horse-drawn. A version of the gun with a tripod mounting to allow full 360° traverse (very similar in concept to the British 2pdr) was developed as the SA 39, but in 1940 existed only in prototype form.

Despite their potent anti-tank capability, most of the SA 37 APX captured



by the Germans remained in France (where some saw action vs the Allies in 1944); this was probably due to Germany's chronic shortage of tungsten. A small number of SA 37 APX captured in the Levant were used by the Free French in North Africa, seven being with the 1st BFL at Bir Hakeim in May 1942—one in the 2nd Foreign Legion Battalion and the rest in the 1st Anti-Tank Company. In November 1942, some 45 were present in Vichy North Africa (apparently all in Tunisia) where they were used in batteries of 6-12 guns, again usually as part of artillery regiments.

†This Gun fires *only* APCR.

†(Vichy) French Dates and RF are 5/40-5/43 and 1.4 [EXC: NA in Norway, Indo-China and Madagascar]. For Free French they are 2-6/42 (1.3) and 7/42-5/43 (1.5).



7. *Canon de 75 Antichar mle 97/35:* This little-known gun was actually the mle 1897 (French Ordnance Note 11) modified to use a circular firing platform beneath its wheels (like the British 25pdr), thus allowing a more rapid traverse of the gun. Several hundred of these platforms were manufactured beginning in 1935, but it is unclear how many of the converted guns were used in action. It seems that, despite their potent tank-killing capability, they were unpopular due to their weight and longer (un)limbering time. Those issued were assigned to various BDAC.

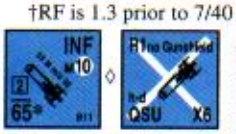


8. *Canon de 37 mle 16 TR:* This small gun, a Puteaux design of 1916, was intended to provide close support for infantry, especially vs enemy machine guns. It remained in service after WW1, but in France by 1940 was used mainly as a substitute anti-tank weapon to help offset the shortage of 25mm anti-tank guns. Two small wooden wheels were provided for ease of movement, but were usually removed before firing. Alternatively, the gun could be broken down into three loads for pack transport. In France the mle 16 TR was found mainly in second-line and reserve units, but each GRDI was authorized one in its EME. 1,036 (probably excluding those outside of France) were available in May 1940. In November 1942, 303 were present in Vichy North Africa; there (or at least in Tunisia), each infantry-type regiment was authorized one *section* of (most likely three or four) mle 16 TR. "TR" stands for *Tir Rapide* (rapid fire).

During WW1 the U.S. had adopted the mle 16 TR as the M1916, and retained some in storage in 1941 (at that time it was still listed as the official anti-tank gun of the U.S. Marines). A number of mle 16 TR were used by Republican forces in the Spanish Civil War, and a modified version of the gun was produced in Japan (Japanese Ordnance Note 9).

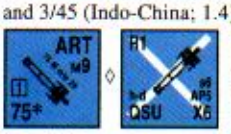
†This weapon may enter and be fired from all terrain types allowed to a HMG (e.g., an upper building level). As a SW it incurs no CA-change DRM penalty (C9.2), but is subject to the woods/building CA restrictions of A9.21. It has no Gunshield, and its portage cost while dm is 3 PP. See also French Ordnance Note C.

†RF is 1.3 prior to 7/40 [EXC: NA in Norway], and 1.2 thereafter.



9. *Canon de 65 M mle 06:* In May 1940 only seventy examples of this pre-WW1 mountain gun were still in active service in France, equipping several fortress- and mountain-artillery units—the remainder having been replaced by the 75mm mle 28 (French Ordnance Note 10) or relegated to the general reserve. However, the mle 06 was also used overseas in French North Africa (where 109 were present in November 1942), the Levant, and Indo-China (22 present in December 1944). In action it was usually positioned in or near the front line for direct-fire support. The gun itself was unusual in employing the counter- or soft-recoil system, wherein the barrel travels forward when the lanyard is pulled, and the gun fires as the barrel's forward travel limit is reached, thus utilizing its momentum to help offset the recoil force.

†Dates and RF are 5-6/40 (1.6) [EXC: NA in Norway], 7/40-5/43 (1.4), and 3/45 (Indo-China; 1.4).



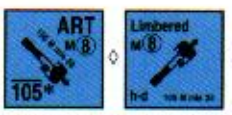
10. *Canon de 75 M mle 28:* Produced by Schneider, this was an improved version of the firm's earlier Canon de 75 Montagne mle 19, which had been designed to replace the 65mm mle 06. (Both 75mm guns are equivalent in game terms.) In 1940 the 75 M equipped mountain and colonial artillery *groupes*, with 156 mobilized in France on May 1st of that year. They were also used in French overseas territories. The mle 19 was exported to Greece, Poland, Romania and Yugoslavia, while the mle 28 was sold to Poland. French mountain gun *batteries* comprised four guns.

†Dates and RF are 5-6/40 (1.5) [EXC: NA in Norway], 7/40-5/41 (1.3), 6/41-5/43 (1.5), and 3/45 (Indo-China; 1.3).



11. *Canon de 75 mle 1897:* The "French 75" (or *soixante-quinze*—"75") was a Puteaux design built by Schneider and the Bourges arsenal. It was revolutionary in being the first field gun with a successful hydraulic recoil system and fast-acting breech block. The details of its design were a closely guarded secret prior to WW1, but afterwards it went into service in so many countries that it became the most widely used field gun ever produced. Even though it was rather outdated by the start of WW2 (despite many having been retrofitted with pneumatic tires for high-speed towing), the sheer numbers of mle 1897 in the French artillery park made the cost of replacing them prohibitively high. In France alone, some 4,500 (including those converted to the anti-tank role; see French Ordnance Note 7) were in active service at the start of May 1940, with another 68 in the general reserve. The mle 1897 was the standard light artillery piece in most French divisions, and was also used in a number of armored cupolas in the Maginot Line. A *batterie* comprised four guns, with three *batteries* forming a *groupe*. In November 1942, 334 mle 1897 were present in Vichy North Africa. Other users of the gun during WW2 were the United States (U.S. Ordnance Note 13), Poland, Greece, Romania, and Germany (captured pieces; see also German Ordnance Note 9).

†Dates and RF are 39-5/43 (1.3) [EXC: 1.4 in Norway], and 3/45 (Indo-China; 1.3).

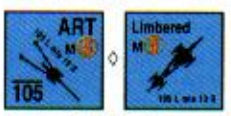


12. *Canon de 105 M mle 28:* Designed by Schneider to complement the 75mm mle 28, the 105 M—like the 75 M—originally appeared just after WW1 with the designation mle 19, and after undergoing further development became the mle 28. (Both versions of the 105 M are equivalent in game terms.) It was used mostly in the French overseas territories; only 24 (two *groupes*) were in France in May 1940, all apparently in the Alps defenses. Due to its relatively short range, the 105 M was often positioned for use in a direct-fire role. Some were exported to Yugoslavia.

†Dates and RF are 6/40 (1.6), 7/40-7/41 (1.5), 8/41-5/43 (1.6), and 3/45 (Indo-China; 1.5).



13. *Canon de 105 C mle 35 B:* In the early 1930s it was decide to replace the existing stocks of WW1-vintage 155mm howitzers with lighter 105mm pieces. The first of the new guns to appear was the 105 C mle 34 S ("C": *Court*—i.e., short-barreled) built by Schneider. Shortly thereafter the 105 C mle 35 B, produced by the Bourges arsenal, was accepted as well. Both were very similar in characteristics and performance, and were referred to collectively as 105 C. A total of 376 (of which 210 were mle 35 B) had been mobilized in France by the start of May 1940. Two *groupes* (of three four-gun *batteries* apiece) were authorized in each DCR and DLM; in addition, 105 C were issued to certain DLC and DIM, in which case one such *groupe* replaced one of the division's standard C 17 S (French Ordnance Note 16) *groupes*. One interesting feature of the mle 35 B was that its large, solid pressed-steel wheels were attached to the gun trails in such a manner that when the trails were opened, the wheels "toed in" at the front to provide extra cover for part of the crew. On the other hand, many 105 C were built only for horse traction despite their otherwise-modern design. Few if any were used outside of France.



14. *Canon de 105 L mle 13 S:* In 1940, France still possessed almost 11,000 artillery pieces of ≥ 65mm designed before/during WW1. Among the elderly guns still doing first-line duty was the L 13 S ("L": *Long*—i.e., long-barreled), produced by Schneider based on a Russian 107mm design. It entered service in 1914, and after WW1 was widely exported. Only the later models had pneumatic tires for vehicular towing. In May 1940 some 857 were available in France, used as corps (and in a few cases as divisional) artillery. Sixteen 105 L were present in Vichy North Africa in November 1942. During WW2 the L 13 S (or derivatives thereof) also saw action in the armies of Italy (Italian Ordnance Note 13), Belgium, Yugoslavia, Poland, China (Chinese Ordnance Note 12) and Germany (captured pieces).

†Dates and RF are 5-6/40 (1.4) [EXC: NA in Norway], 6-7/41 (1.4), and 11/42-5/43 (1.6).



15. *Canon de 105 L mle 36 S:* This gun, designed by Schneider to replace the L 13 S, was the most modern field piece in the French artillery park in 1940. Surprisingly though, some were still built to be horse-drawn. At the time of the German invasion, 145 had been mobilized in France with another four in the general reserve. They were employed primarily as corps heavy artillery, and in a few cases replaced C 17 S as divisional heavy guns. The mle 36 was sold to Romania, and some sources allege that it (or one of its prototypes) also served as the basis of the Type 92 field gun (Japanese Ordnance Note 15). In French service, all 105mm field artillery *batteries* normally comprised four guns.



16. *Canon de 155 C mle 17 S:* Originally designed by Schneider as a 152mm piece for Tsarist Russia, the C 17 S heavy field howitzer was adopted by the French during WW1, and afterwards was widely exported and license-built. In 1940 the French possessed over 2,000, of which 1,852 were in France (including 25 in the general reserve). The majority were horse-drawn. Most French infantry-type divisions were authorized a regiment of C 17 S comprising two twelve-gun *groupes*. 36 C 17 S were present in Vichy North Africa in November 1942. In French service, all 155mm artillery *batteries* normally comprised four guns. Other users of the C 17 S (or derivatives thereof) during WW2 included Belgium, China (Chinese Ordnance Note 14), Finland, Greece, Italy, Yugoslavia, Poland, Romania, the U.S.S.R., and the U.S.A. (U.S. Ordnance Note 17). The Germans issued many captured C 17 S to their own artillery units. (Most other types of ex-French artillery they relegated to coast defense.)

†Dates and RF are 5-6/40 (1.4) [EXC: NA in Norway], 7/40-5/41 (1.6), 6-7/41 (1.5), 11/42-5/43 (1.5), and 3/45 (Indo-China; 1.6).



17. *Canon de 155 GPF:* The GPF, as this gun was often referred to, first saw action in 1917 and proved to be one of the best heavy artillery pieces of WW1. Later, two variants (both equivalent to the GPF in game terms) were produced in small numbers: the GPF-CA and the GPF-T, the latter being the most modern gun in French service in 1940. At the time of the German invasion, 402 of all types had been mobilized in France, equipping a number of twelve-gun *groupes d'artillerie lourde à tracteur* employed at corps level. The GPF was also used by the U.S., who in addition produced a license-built version (U.S. Ordnance Note 19). Many of the French guns were captured by the Germans, who for a time used them as first-line heavy artillery (e.g., in the Afrika Korps). Nine GPF were present in Vichy North Africa in November 1942. "GPF" stands for *Grande Puissance* ("High Power") *Filloux* (the designer's name).

The game piece also represents the *Canon de 155 L mle 17 S*, which comprised a WW1 155mm barrel on the carriage of a pre-WW1 design. Produced by Schneider, it had been accepted in 1917. At the start of May 1940, 407 L 17 S had been mobilized in France to equip *groupes d'artillerie lourde de corps d'armée*—corps heavy artillery groups, each with twelve guns. In addition, over a hundred more were formed into other such *groupes* in the general reserve.

France retained large stocks of other heavy artillery designs from WW1 and earlier, ranging in caliber from 120mm to 280mm, some of which dated as far back as 1877. A small number were even self-propelled—but in the rapid war of movement that swept across France in 1940, few of these archaic and unwieldy pieces could be put to effective use.

†Dates and RF are 5-6/40 (1.5) [EXC: NA in Norway], and 11/42-5/43 (1.6).



18. *Mitrailleuse de 13.2 CAJ mle 30:* Designed and manufactured by Hotchkiss, this was a twin-barreled 13.2mm MG on a heavy tripod mount. 540 (including a small number of single-barrel versions) had been delivered by the start of May 1940, but a shortage of ammunition kept many from being used. They were employed in independent *sections* of two guns (four tubes), either attached directly to the various armies or providing low-altitude protection for AA guns of ≥ 75mm. Due to its weight, the CAJ mle 30 was adopted by neither the infantry nor the cavalry. Small numbers were exported to Belgium, Greece, Italy, Poland, Romania and the U.S.S.R., while the Japanese produced their own copy (Japanese Ordnance Note 20). Those captured by the Germans were used either in the standard AA role or incorporated into the Atlantic Wall defenses. The 1st Free French Division had six when it invaded Syria in June 1941. "CA" stands for *Contre Avions* ("AA"), and "J" for *Jumelé* ("twin").

†As signified by "Tow NA" on the counter, this Gun cannot be towed. However, it may be carried on a vehicle in the same manner as a 76-107mm MTR (C10.1). It is (un)loaded using normal (un)hooking procedures [EXC: the vehicle need not have a T#; ignore its T# if one is present], and reduces that PP capacity by 8PP while loaded. Section C10 applies otherwise unchanged.

†(Vichy) French Dates and RF are 5-6/40 (1.3) [EXC: NA in Norway], 6/41-12/42 (1.6), and 1-5/43 (1.5). For Free French they are 6-7/41 (1.4).



19. *Mitrailleuse de 20 CA mle 39 O:* This weapon was ordered from the Swiss firm of Oerlikon in late 1939. By the time the Germans launched their attack in the West, 357 had been received by the French. It was intended that the CA would be provided with an AA *section* of four Oerlikons to replace four of its Hotchkiss MG. This was never achieved in full, but all seven of the DIM and more than a dozen other infantry-type divisions had at least a complement of the guns by May 10th 1940. Some sources allege that the French also acquired a license to produce the CA 39 O. In the colonies, the CA 39 O was sometimes mounted on the bed of a truck for greater mobility.

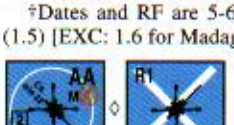
†When using Limbered Fire, the Barrel Length modification (C4.1) on the counter's LF side is used for To Hit purposes but the AP Basic To Kill number is still determined using the Caliber Size and Length printed on the unlimbered side.

†Dates and RF are 5-6/40 (1.3) [EXC: NA in Norway], 7/40-5/41 (1.5), 6/41-10/42 (1.6), 11/42-5/43 (1.4), and 3/45 (Indo-China; 1.5).



20. *Canon Automatique de 25 CA mle 38:* Aircraft tactics during the Spanish Civil War led to a French requirement for a light AA gun of larger than MG caliber, in order to engage planes flying at higher altitudes. This ultimately resulted in the 25mm CA 38 and CA 39, produced by Hotchkiss. (The CA 39 featured a stronger platform and carriage, but in game terms the two guns are equivalent.) A twin-barrel version—the CAJ mle 40—was also designed, but appeared too late to see much action. By May 10th 1940, 512 CA 38 and 62 CA 39 had been delivered—but at the end of April a total of only 327 had actually been mobilized in France (another 62 were in Africa and the Levant). A further 159 and 96 (respectively) of the two models were delivered before the June armistice. At the time of the German invasion 39 *batteries* were assigned to the various armies, while the three DLM, the seven DIM and three other infantry-type divisions contained one organic *batterie* apiece. During the campaign, all five DLC, the 4th DCR and fifteen other infantry divisions also received a *batterie*. All of these *batteries* normally comprised six guns. Each *batterie* of W15T CC was authorized four CA 39 (see French Vehicle Note 21). Most of the 25mm AA guns captured by the Germans were issued to occupation troops in France; in June 1944 the Luftwaffe had 639 in service. The French 25mm AA appears to have been the inspiration for the Soviet and Japanese AA weapons of that caliber.

†Dates and RF are 5-6/40 (1.4) [EXC: 1.5 for Norway], and 6/41-5/43 (1.5) [EXC: 1.6 for Madagascar, 5/42 and 9/42].



21. *Canon de 75 CA mle 32:* This was the most numerous mobile AA gun available to the French in 1940. It was accepted for service in 1932, but production was delayed by the need to incorporate several important design changes (for which reason many sources refer to this gun as the mle 36). 332 had been delivered by May 10th, 1940—plus another 24 later in that month. The game piece also represents three other types of mobile 75mm AA guns: the mle 17/34, the mle 30 and the mle 33, of which 127, 132 and 192 (respectively) were available at the time of the German invasion. The French employed more than 600 statically mounted 75mm AA guns as well. 149 75mm AA guns (probably including both static and mobile types) were present in Vichy North Africa in November 1942. One drawback common to all of the mobile 75mm guns was their long setup time of 20-30 minutes. In addition, while the mle 32 could be towed at speeds of up to 24 mph, the others were limited to only about 6 mph. A *batterie* normally comprised four guns. The mle 32 was kept in production by the Germans; in June 1944 they had 580 captured French 75mm AA guns on mobile carriages in service.

†Dates and RF are 5-6/40 (1.5) [EXC: NA in Norway], 7/40-7/41 (1.6), 11/42-5/43 (1.6), and 3/45 (Indo-China; 1.6).



LEND-LEASE ORDNANCE

The United States supplied the French with a total of 1,694 artillery, anti-tank and AA guns through the Lend-Lease program. In addition, more were doubtlessly given via direct transfers in-theater, which were not always included in Lend-Lease calculations. Britain and Canada also provided much equipment, though the exact quantities remain unclear. With a few exceptions, Free French units operating under British or U.S. command were organized along the same lines as their respective Allied counterparts.

The following Listing denotes those Guns and SW-mortars included in *YANKS* or *WEST OF ALAMEIN* that may be used in a Free French scenario OB. All pertinent data and Notes relating to the characteristics and game capabilities of each weapon apply as given originally for it in *YANKS/WOA* except as noted otherwise. This Listing does *not* include Guns and SW-mortars available to the Free French that were not included in *YANKS/WOA* (e.g., the LG de 50 mle 37 mortar). For a complete list, see the Free French Ordnance Rarity Factor Chart.

#	Name & *Type*	Color	Dates	RF	Notes
†	OML 2-in. *MTR*	British	9/40-11/43	1.3-1.6†[1]	22†[1],W†
†	M2 60mm *MTR*(a)	British	12/43-5/45	–	22,W†
†	OML 3-in. *MTR*	British	9/40-11/43	1.6-1.1†[1]	22†[1],W†
†	M1 81mm *MTR*	U.S.	12/43-5/45	1.1	22,D,Y†
†	OQF 25mm Hotchkiss *AT*	British	3/41-11/42	1.1-1.5†[1]	23†[1],V,W†
†	OQF 6-Pounder 7-cwt *AT*	British	10/42-11/43	1.0	24,W†
†	M1 57mm *AT*	U.S.	12/43-5/45	1.0	24,Y†
†	Canon de 75 mle 1897 *ART*	British	3/41-5/43	1.0-1.6†[1]	25†[1],V,W†
†	OQF 25-Pounder Gun-How. *ART*	British	5/42-11/43	1.6-1.3†[1]	26†[1],W†
†	M2A1 105mm Howitzer *ART*	U.S.	12/43-5/45	1.3	27,Y†
†	M3 105mm Howitzer *ART*	U.S.	12/43-5/45	1.1	27,Y†
†	OBL 5.5-in. Gun-Howitzer *ART*	British	10/42-11/43†[1]	1.6	28†[1],W†
†	M1 155mm Howitzer *ART*	U.S.	12/43-5/45	1.4	29,Y†
†	M1918M1 155mm Gun *ART*	U.S.	12/43-5/45	1.5	29,Y†
†	OQF 40mm *AA*	British	5/42-11/43	1.2	30,W†
†	M1 40mm *AA*	U.S.	12/43-5/45	1.2	30,Y†

22. *U.S. & British Mortars:* The mortars initially available to the Free French were primarily those they possessed when they declared for de Gaulle. Britain soon began supplying 2-in. and 3-in. models (British Ordnance Notes 1 and 2), but these were used mostly for training except when the supply of French mortars was insufficient. The fall of Vichy Syria and Lebanon provided enough French mortars and ammunition to fully equip the Free French in the British 8th Army until the end of 1942.

A total of 1,504 U.S. mortars were Lend-Leased to the French. The M2 60mm (U.S. Ordnance Note 1) was used three per infantry company, and the M1 81mm (U.S. Ordnance Note 3) was issued six per infantry battalion, just as in American units.

†*2-in. Mortar* Dates and RF for DYO *purchase* purposes are 9/40-5/41 (1.3) and 8/41-4/43 (1.6). For 6-7/41 and 5-11/43, use the Free French SW Allotment Chart.

†*3-in. Mortar* RF is 1.5 for 9/40-5/41, 1.2 for 6-7/41, 1.6 for 8/41-4/43, and 1.1 for 5-11/43.

23. *OQF 25mm Hotchkiss:* This was the French SA-L light anti-tank gun (French Ordnance Note 5; British Ordnance Note 4). The 1st Free French Division had nine (survivors of the 1940 Norwegian expedition) when it invaded Syria in June 1941, but at the end of that campaign it acquired more. 18 were used at Bir Hakeim in May 1942, with each infantry battalion of the 1st BFL having four (one battalion had six), some of which were mounted on Carriers (see French Vehicle Note 31).

†RF is 1.3 for 3/41-1/42, 1.1 for 2-6/42, and 1.5 for 7-11/42.

24. *OQF 6-Pounder & M1 57mm AT Gun:* After the loss of most of their anti-tank guns during the fighting at Bir Hakeim, the Free French in North Africa were re-equipped with 6pdrs (British Ordnance Note 6). Later, the divisions outfitted by the Americans were issued M1 57mm guns (U.S. Ordnance Note 7). To fully equip them as per U.S. tables of organization required 375 such guns.

25. *Canon de 75 mle 1897:* Initially the Free French had only a few of these guns (French Ordnance Note 11; British Ordnance Note 10), leftovers from the expeditionary force sent to Norway in 1940. Only a single battery of four was included in the 1st Free French Division when it invaded Syria in June 1941; however, dozens more became available at the end of that campaign. 54 were available at Bir Hakeim in May 1942—six (as anti-tank guns) per infantry battalion, six in the 1st Anti-Tank Company, and 24 in the 1st Artillery Regiment. Most were lost in that battle, and the gun's prominence diminished significantly thereafter.

†RF is 1.5 through 1/42, 1.0 for 2-6/42, 1.4 for 7/42-4/43, and 1.6 for 5/43.

26. *OQF 25-Pounder Gun-Howitzer:* Two of these (British Ordnance Note 13) were used by the Free French at Bir Hakeim, as part of their 1st Artillery Regiment. Later that year the regiment received sixteen 25pdrs, and by May 1943 the 1st Free French Division contained a second 25pdr-equipped regiment.

†RF is 1.5 for 5-9/42, 1.6 for 12/42-4/43, and 1.3 for 10-11/42 and 5-11/43.

27. *M2A1 & M3 105mm Howitzers:* These (U.S. Ordnance Notes 14 and 15) were used in the Free French infantry divisions just as in their U.S. counterparts; i.e., the M2A1 was the divisional light artillery piece, and six M3 formed the regimental cannon company.

28. *OBL 5.5-in. Gun-Howitzer:* A troop of four (some sources allege a battery of eight) of these (British Ordnance Note 16) was issued to the Free French 1st Artillery Regiment in time for the Second Battle of Alamein.

†Dates are 10-11/42 and 5-11/43.

29. *M1 155mm Howitzer & M1918M1 155mm Gun:* The M1 155mm Howitzer (U.S. Ordnance Note 18) formed the divisional heavy artillery in the five U.S.-equipped Free French infantry divisions, while the M1918M1 (U.S. Ordnance Note 19) provided non-divisional support in the hands of the RACL (*Régiment d'Artillerie Coloniale du Levant*). 85 American heavy artillery pieces were Lend-Leased to the Free French; with twelve guns to a battalion (as per the U.S. table of organization), that equates to five battalions of divisional M1 and two of non-divisional M1918M1.

30. *OQF 40mm & M1 40mm AA Guns:* The British provided the Free French with 40mm Bofors guns (British Ordnance Note 21) just prior to the Gazala battles in 1942. At Bir Hakeim and again during the Second Battle of Alamein, twelve were possessed by the 1st BFM (*Bataillon de Fusiliers-Marins*), the AA element of the 1st BFL. From mid 1943, as the newly forming Free French infantry divisions were being outfitted with U.S. equipment, each was authorized a battalion of (presumably 32) M1 Bofors guns (U.S. Ordnance Note 24). In all, 758 American AA guns were Lend-Leased to the Free French.

FRENCH MULTI-APPLICABLE ORDNANCE NOTES

A. This weapon may be Animal-Packed (G10).

B. A British-color version of this counter is provided, for use in Free French OBs as per F.8A-.8C, either in *CROIX DE GUERRE* (if so illustrated in its Ordnance Note) or *WEST OF ALAMEIN* .

C. As signified by "crew" on the counter, this weapon requires a friendly crew in order to be used without the applicable penalties of A21.11-.13. Its BPV includes a crew as per H1.3.

D. Use one of the British-color dm 81mm MTR counters provided in *CROIX DE GUERRE* to represent a dismantled Free French 81mm MTR.

E. Availability is limited to use in Europe [EXC: Norway].

F. Dates of availability are 5-6/40. Note E above also applies.

G. "B(11)[40]" on the counter signifies that this Gun suffers from Low Ammo (D3.71) in scenarios set in 1940. This status can be negated only by SSR, an Ammo Vehicle (E10.1) or an Ammo Dump (E10.6). For later scenarios it is assumed to have normal B12, and a BPV 10% (FRU) > its printed BPV.

P. This Gun may be carried *en portée*, which means it may be loaded onto a vehicle (during setup/play) and carried as Passenger PP [EXC: porteeing a 47L AT or 75 ART is NA in scenarios set prior to 1941]. The 25LL AT may be porteed by a *C-K P17*, *Laffly S20TL* or *Citroën 23*; any other Gun must use a *Renault AGR2*. Prior to setup, the vehicle must be noted on a side record as being able to portee a Gun of that particular Caliber Size (C2.21) and Barrel Length (C4.1). As a Passenger, the Gun and its ammo together use all but 5PP of the vehicle's Passenger capacity (note that this allows a *C-K P17* to carry both a 25LL AT and its crew despite the vehicle's total Passenger capacity of only 5PP).

The principles of (un)loading a Gun to/from portee status are the same as for the 2pdr Portee in British Vehicle Note 77, except that here the Gun crew (un)loads as a Passenger rather than as an Inherent Crew, and a QSU Gun is not (un)loaded limbered. When a Gun has been thusly loaded, it is



marked with an En Portee counter. A vehicle porteeing a Gun is not flipped over to its Wreck side if it becomes Immobilized, and the Gun may be unloaded (at which time the vehicle counter is then flipped over). If a vehicle porteeing a Gun is eliminated, the Gun is eliminated too. A vehicle may not simultaneously have one Gun *en portée* and another hooked up for towing. An AT (with a gunshield) being porteed can provide gunshield benefits to its Passenger crew in the same way the 2pdr Portee MA does to its Inherent crew. In a DYO scenario, the French player may purchase the correct portee vehicle in lieu of buying a normal towing vehicle as per 1.441.

Only the 25LL AT and 75 ART may be fired by its Passenger crew while being porteed [EXC: it may not use Bounding (First) Fire]. While loaded on the vehicle, its CA must coincide with its portee's VCA or "rear" VCA [EXC: "rear" VCA of the *C-K P17* is NA] and may not change relative to that VCA.

ERRATA: No Gun *counter*—regardless of nationality—may use Motion Fire while being carried *en portée*.

V. Vichy French may use even the British-color version of this weapon without Captured penalties.

W. Provided in *WEST OF ALAMEIN*.

Y. Provided in *YANKS*.

(VICHY) FRENCH ELR CHART[a]			
1939-40	1941	1942	1943-45
2[b]	3	2	3

[a]: For Free French ELR, see the 1.28 chart.

[b]: Increase this # by two if the scenario is set in Norway.

(VICHY) FRENCH SW ALLOTMENT CHART[1]					
	LMG	MMG	HMG	LT. MTR	DC[2]
1939-7/41	8	10	13	12[3]	1
8/41-5/43	9	11	14	14	2
3/45	8	10	12	16	2
# In Game	*10*	*6*	*5*	*4*	*4*

[1]: SW allotted according to Equivalent number of squads.

[2]: Allotted according to Equivalent number of Assault Engineer squads; see 1.22.

[3]: Increase this # by four if the scenario is set in Indo-China.

(VICHY) FRENCH OBA AVAILABILITY CHART				
YEAR	1939-6/40	7/40-7/41	8/41-10/42	11/42-3/45
DR: 2	80+	80+	80+	150+
BPV:	67 s	67 s	67 s	122
3	150+	150+	80+	100+
	122	122	67s	81
4	150+	150+	70+	150+
	124 s	124 s	52 s*	124 s
5	150+	60+	60+	60+
	124 s	33	33	33
6	100+	100+	70+	70+
	81	81	50 *	50 *
7	70+	70+	70+	70+
	52 s*	52 s*	52 s*	52 s*
8	70+	70+	70+	70+
	52 s*	52 s*	52 s*	52 s*
9	70+	70+	70+	70+
	52 s*	52 s*	52 s*	52 s*
10	80+	80+	80+	80+
	67 s	67 s	67 s	67 s
11	70+	70+	70+	70+
	52 s*	52 s*	52 s*	50 *
12	70+	70+	70+	70+
	50 *	50 *	50 *	50 *
MAX. BPV:	124	124	67	124

s: Can fire smoke but not WP.

*: Can fire IR (E1.93).

FREE FRENCH SW ALLOTMENT CHART[1]									
	LMG	MMG	HMG	.50-cal HMG	LT. MTR	ATR	BAZ	FT[2]	DC[2]
9/40-5/41	7[3]	14[3]	17[3]	–	15[4]	12[5]	–	–	2[3]
6-7/41	6[3]	13[5]	16[3]	–	9[6]	9[5]	–	–	2[3]
8/41-4/43	4[3]	10[5]	15[3]	–	10[6]	6[3]	–	–	1[3]
5-11/43	6[5]	12[5]	15[3]	–	6[6]	6[5]	–	–	1[3]
12/43-5/45	–	8[7]	13[7]	17[7]	8[8]	–	6[9]	3[7]	1[3]

[1]: SW allotted according to Equivalent number of squads. All are *British-color* (see F.8A-.9).

[2]: Allotted according to Equivalent number of Assault Engineer squads; see 1.22.

[3]: "(f)" version (F.8C).

[4]: 60mm "(f)" version (F.8C). See also French Ordnance Notes 1 and 22.

[5]: Standard British version.

[6]: Standard British 51mm (range: 2-11) version.

[7]: "(a)" version (F.9).

[8]: 60mm "(a)" version (F.9). Each three received may be exchanged for an OBA module as per U.S. Ordnance Note 1.

[9]: BAZ 44(a) only, regardless of scenario date (F.9).

FREE FRENCH OBA AVAILABILITY CHART						
YEAR	9/40-5/41	6-7/41	8/41-6/42	7/42-4/43	5-11/43	12/43-5/45
DR: 2	150+	80+	100+	120+	120+	200+
BPV:	202	108 s	135	162	162	243
3	150+	80+	80+	100+	100+	100+
	202	108 s	108 s	135	135	135
4	100+	80+	70+	80+	80+	100+
	141 S*	108 s	84 s*	108 s	108 s	† 140 S
5	100+	80+	80+M	80+M	80+	100+
	141 S*	108 s	115 s	115 s	108 s	† 138 W
6	80+	80+	80+M	80+M	80+	80+M
	114 S*	108 s	115 s	115 s	108 s	116 W
7	80+	70+	70+	80+	80+	150+
	108 s	84 s*	84 s*	108 s	108 s	† 207 S
8	80+	70+	70+	80+	70+M	100+
	108 s	84 s*	84 s*	108 s	92 S*	† 140 S
9	80+	70+	70+	80+	80+	80+M
	114 S*	84 s*	84 s*	108 s	108 s	116 W
10	80+	70+M	70+	80+	70+M	70+
	114 S*	91 S	84 s*	108 s	92 S*	84 W
11	80+	70+	70+	80+	70+M	80+M
	108 s	84 s*	84 s*	108 s	92 S*	116 W
12	80+	70+	70+	80+	80+	100+
	114 S*	84 s*	84 s*	114 S*	114 S*	† 140 S
MAX. BPV:	202	108	135	162	162	243

M: Battalion mortar OBA (C1.22).

S: Can Fire SMOKE.

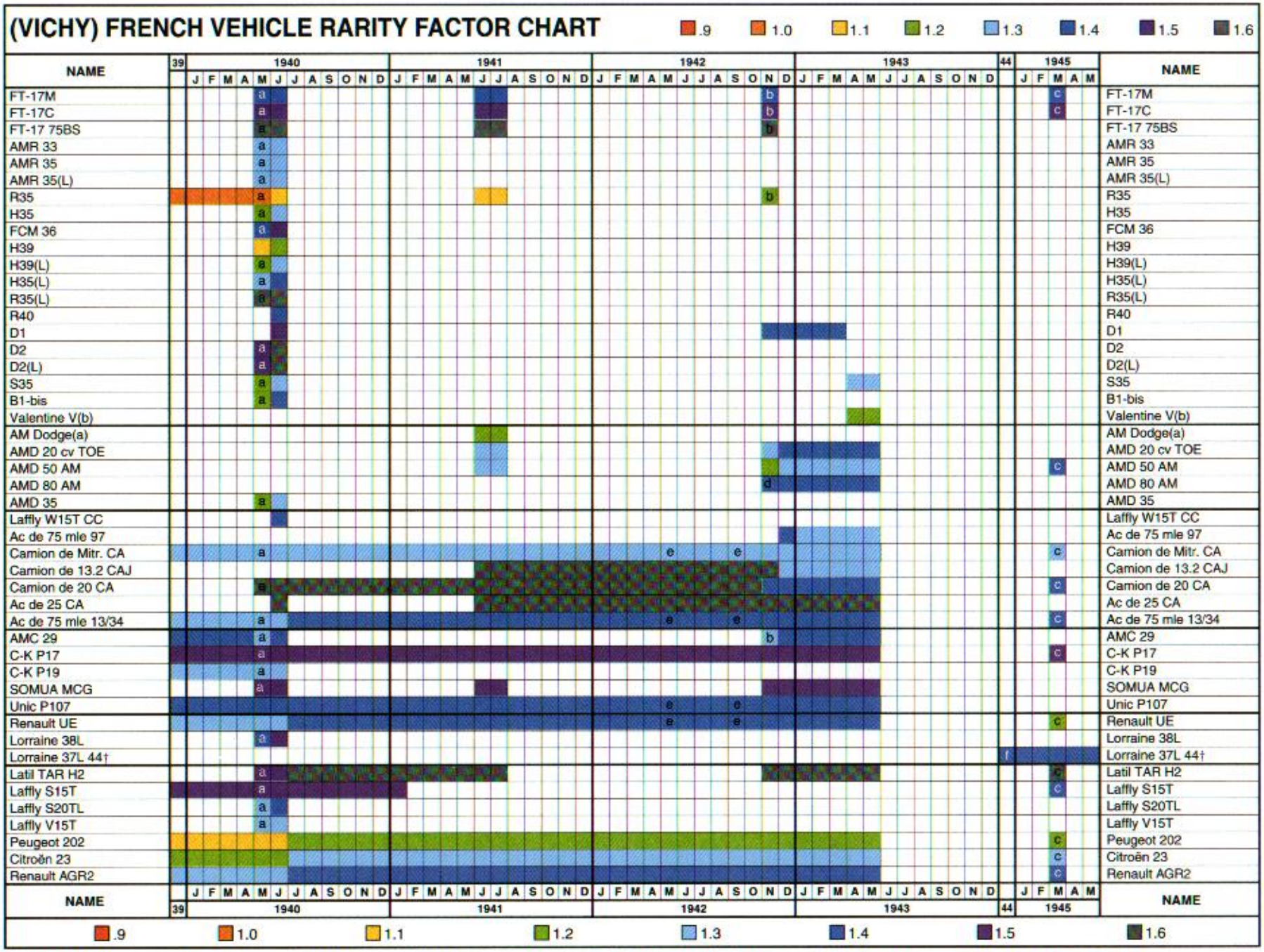
s: Can fire smoke but not WP.

W: Can fire WP but not smoke.

*: Can fire IR (E1.93).

†: OP tank possibly available as per 1.46 and 1.463.

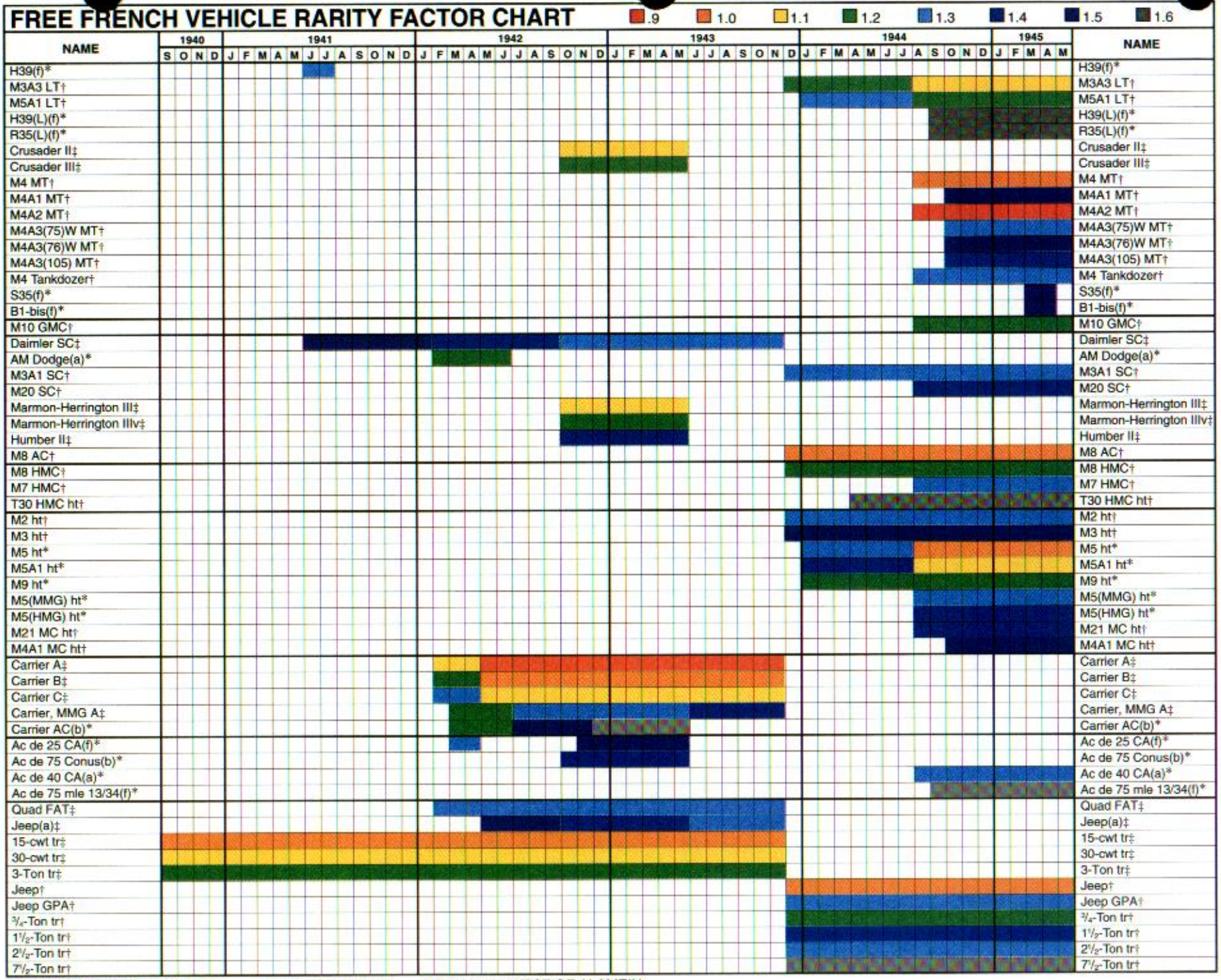
(VICHY) FRENCH VEHICLE RARITY FACTOR CHART



[a]: NA in Norway [b]: NA vs Axis [c]: Indo-China [d]: NA vs Allies [e]: Increase by .1 for use in Madagascar [f]: 9-12/44 only † "French-partisan" OB only

FREE FRENCH VEHICLE RARITY FACTOR CHART

.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6



*Provided in *CROIX DE GUERRE* †Provided in *YANKS* ‡Provided in *WEST OF ALAMEIN*

(VICHY) FRENCH ORDNANCE RARITY FACTOR CHART

.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6

| NAME | 39 | 1940 | | | | | | | | | | | | 1941 | | | | | | | | | | | | 1942 | | | | | | | | | | | | 1943 | | | | | | | | | | | | 44 | 1945 | | | | | NAME |
|---|---|---



POLISH VEHICLE NOTES

For the sake of brevity, the following Polish acronyms are used herein:

BCL *(batalion czołgów lekkich):* light tank battalion

BK *(Brygada kawalerii):* cavalry brigade

BKM *(Brigada kawalerii Mechanizowanej):* mechanized cavalry brigade

DPty *(Dywizja Piechoty):* infantry division

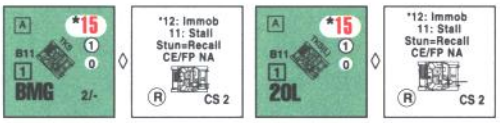
DPny *(dywizjon pancerny):* armored troop

GO *(Grupa Operacjna):* operational group

KCL *(Kompanja czołgów lekkich):* light tank company

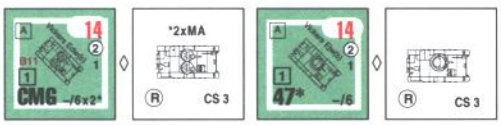
SK *(samodzielna kompanja czołgów rozpoznawczych):* independent scout tank company

WBP-M *(Warszawska Brygada Pancerno-Motorowa):* Warsaw Mechanized Brigade



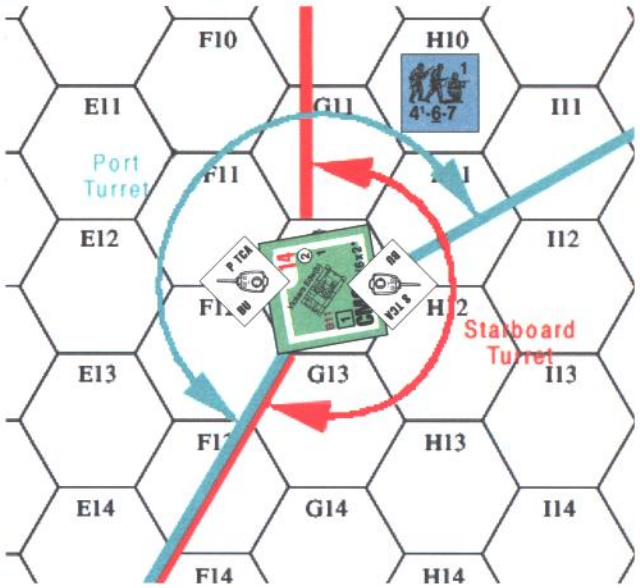
1. *TKS & TKS(L):* After the acquisition and trial of the British Carden-Lloyd MK VI tankette in 1929, Poland purchased the rights to produce the vehicle and set about developing a Polish version dubbed the TK-3. The first models started to roll off the assembly lines of the PZInz Works in August of 1931 and 300 were produced before the introduction of the TKS in 1934 (both vehicles are represented by the TKS counter since they were similar in all aspects). Production of the TKS ended in 1937 with 293 being built. Modest efforts were made to upgun the TKS tankette with two open-topped prototypes mounting a 47mm ATG and the Swedish 37mm Bofors ATG, both being labeled TKS-D. Neither was accepted, and the final version of the TKS mounted a 20mm autocannon. This version was designated "*TKS z 20mm dzialkem*" or "nkm 20mm TKS" after the gun denomination. The TKS(L) was to be a workshop modification of both the TKS and TK-3 models. A total of 150 conversions were planned, but by August of 1939 only 26 were finished with just 23 being delivered to fighting units. The TKS(L) were delivered to the 101st *BKM*, the *SK* of the 10th and 11th *BKM* and of the *WBP-M*, and to the 71st Armored Group (*Wielkoposki BK*) and the 81st Armored Group (*Pomorska BK*). Each of these units received 4 vehicles, except the 81st Armored Group which only received 3. The TKS(L) were used as platoon leader vehicles.

† Most of the TKS series of tankettes were in poor mechanical condition—lack of spare parts was always a problem, along with short track life. Therefore, each time a Mechanical Reliability DR is made for a TKS or TKS(L), an 11 indicates that the AFV has stalled or suffered some other mechanical problem that has prevented it from starting normally. Its owner must then immediately make another DR, which equals the total number of Delay MP (including one MP to stop, but excluding the MP expended to start) that the AFV has used in the unsuccessful attempt to move. It can again attempt to move, but must expend another MP to start—and must undergo another Mechanical Reliability DR as it does so. Should the Stall result in more Delay MP being expended than the AFV has available, the AFV is considered to have expended its entire MP allotment in Delay.



2. *Vickers Edw(b) & Ejw(b):* In 1931 the Polish Army purchased 38 Vickers-Armstrong 6-ton tanks from Great Britain. Two different models were purchased, 16 vehicles of the Model E Mk A version mounting a 47mm Vickers-Armstrong gun and a single water-cooled 7.92mm Browning machine gun and 22 of the Model E Mk B version featuring twin turrets, each housing a wz.30 7.92mm machine gun. The tanks were dubbed Vickers Ejw (for the single turret version) and the Vickers Edw (*dw* denoting double turrets). In 1939, the Vickers tank served in the 12th *KCL* of the *WBP-M* and the 121st *KCL* of the 10th Mechanized Brigade. Both formations consisted of 16 tanks (plus one in reserve), 1 for each commander and 3 platoons of 5 tanks each, with *dw* and *jw* models evenly dispersed.

† The Edw version of the Vickers possesses a 6FP CMG in each of two separate turrets, one on each side of the tank's chassis, as its MA. Each turret's CMG rolls its TH/TK/IFT DR separately. Furthermore, the tank must use two different TCA markers. The turrets are restricted in their TCA per the following diagram:





† Use separate TCA/MA Malfunction (Disabled) counters for each turret (bottom counter port turret, top counter starboard turret). Treat each turret independently with regards to CE status, ROF, TH/TK/IFT, and MA malfunction. The vehicle does not suffer MA recall unless *both* MGs are disabled. Any adverse effect (e.g., Stun, Recall, etc.) applies to the entire tank as if it had one turret. Only one of the turrets need be CE for the Edw to qualify for the 1/2 MP road rate.

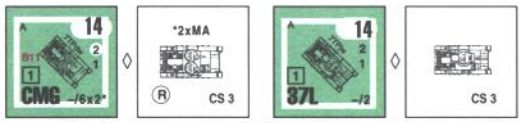


† *TURRET KNOCK OUT:* Whenever the modified TK DR of a Direct Fire non-HE (C7.7) turret hit is equal to the final modified TK number, the vehicle suffers a Turret Knock Out (TKO) instead of a Shock, and is marked appropriately. Which turret is affected depends upon the side of the vehicle—Port or Starboard—from which the fire emanates. If the fire emanates from directly along the hexspine of the vehicle's (rear) CA, a subsequent dr is made: 1-3 Port turret hit, 4-6 Starboard turret hit. The affected turret must BU, cannot become CE, cannot change its TCA, and has its MA Disabled. The crew then takes an Immobilization TC (D5.5). An AFV suffering a TKO must pay an additional +1 for all subsequent shots (from the still functioning turret) that incur a Case A To Hit Modifier. All subsequent hits on a knocked out turret are treated normally.

† *TCA & CASE A:* Vickers Edw turrets may change TCA simultaneously but must pay Case A (D3.52) penalties independently (and cumulatively).

- EX (see above diagram): The Port MG can attack the 4-6-7 with 6FP and +3 DRM for the TCA change, *or* the Starboard MG could attack with 6FP and +2 DRM, *or* the two MG could firegroup to attack the 4-6-7 with 12FP and +5 DRM for the cumulative TCA changes.

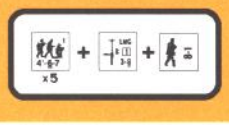
- † *ARMOR LEADER:* An AL can use his leadership modifier for the first, and only the first, turret firing its MA separately in any friendly fire phase, and for both turrets whenever they form a firegroup.



3. *7TPdw & 7TPjw:* In 1934 workers at the PZInz factory began working on modified versions of the British Vickers tank. In an effort to increase armor protection yet maintain running performance, a 110hp Saurer-designed diesel engine was incorporated, replacing the existing 80hp air-cooled gasoline engine. This project became known as the 7TP and would result in Poland's finest combat tank and the world's first mass produced diesel-powered tank. Two models were designed, the first being a twin-turreted version utilizing the Vickers twin turrets and designated the 7TPdw. The 7TPdw appeared in late 1934, with the first series being built and finished in early 1935. During that same year, plans for the second version—called the 7TPjw—were finalized around a brand new single turret mounting the Swedish-designed 37mm Bofors gun and a single 7.92mm machine gun. The production of this version began in the latter stages of 1937. On September 1, 1939 there were 139 examples of the 7TP in commission, with 22 dws in active service. Used partly to train tank crews, the *dw* did see action but most were destroyed early in the fighting or

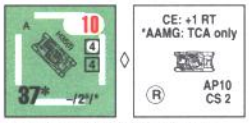
ALLIED MINOR VEHICLE LISTING

#	Name & *Type*	®	WGT	BPV	RF	Dates	Size	AF	TA	OT	CS	MP	GP	GT	MA	ROF	B#	IF	BMG	CMG	AAMG	Am	sD	PP/T#	Notes
6	TKS *Tt*	•	2.7	19	1.1	34-10/39	+2	1/0	-F		2	15†	L		BMG	1	11		2						1†, D
6	TKS (L) *Tt*	•	2.8	21	1.5	9-10/39	+2	1/0	-F		2	15†	L	NT	B20L	1	11								1†, D
4	Vickers Edw(b) *LT*	•	7.4	27	1.5	31-10/39	+1	2/1	-F		3	14	L	RST	CMG†	1	11			6x2†[1]					2†,A,K[1]
4	Vickers Ejw(b) *LT*	•	7.8	29	1.5	31-10/39	+1	2/1	-F		3	14	L	RST	T47*	1				6					2,A
6	7TPdw *LT*	•	9.4	27	1.4	35-10/39	+1	2/1			3	14		RST	CMG†	1	11			6x2†[1]					3†,K[1]
6	7TPjw *LT*		9.9	33	1.3	37-10/39	0	2/1			3	14		RST	T37L	1				2					3
3	H35(f) *LT*	•	11.5	25	1.6	9-10/39	+1	4	+FSR		2	10		1MT	T37*					2†	†	AP10			4,A,E†,F
2	Peugeot 1918(f) *AC*	•	5	18	1.6	20-10/39	0	0/0/★T		•	4	16†		ST	CMG	1	11			2					5,A,D,G†
2	wz.29 "Ursus" *AC*	•	4.8	20	1.6	29-10/39	0	1/0	-F		5	14		1MT	T37*	1	11		-R2†	-R2†					6†
6	wz.34-I *AC*	•	2.1	19	1.2	34-10/39	+1	1/0	-F		2	22	L	1MT	CMG	1				4					7
6	wz.34-II *AC*	•	2.2	20	1.1	34-10/39	+1	1/0	-F		2	20	L	1MT	T37*										7
2	De Dion-Bouton(f) *AAtr*		6	30	1.6	9-10/39	0	★			7	12††	H	T†	T75†[1]	1					†[2]	†			8†,A,Q[1],AA[2]
2	PF 621L SPAA *AAtr*		4.8	32	1.5	36-10/39	0	★			5	18††[1]	H	T†	T75†[2]	1					†[3]				9†,G[1],Q[2],AA[3]
4	302T *AAtr*		0.8	22	1.1	38-10/39	+2	★			3	22[t]	L		AAMG†[1]	3					5†				10†,Q[1]
4	C2P *APC*		2.8	12	1.2	37-10/39	+2	0/0/★T		•	*4*	18	L											4PP/T8	11
4	C4P *ht*		3	12	1.0	34-10/39	0	0/0/★T		•	*5*	12												5PP/T6	12
4	Taczanka *AAh-d*		†	17	1.1	9-10/39	+1†	★			3	10†	†		AAMG†[1]	2					4			5PP†	13†,Q[1]
2	VCL Mk VI/c47 (b) *TD*	•	1.5	25	1.6	33-5/40	+2	1	-FSR	•	2	13	L	NT†	B47†[1]	1	11								14†,A,Q[1]
3	T-13 II(b)*TD*	•	4.5	30	1.4	35-5/40	+1	1/1/★T†		•	4†	15	L	ST†	R47†	1	11			-R2†					15†,A
6	T-13 III (b) *TD*	•	6	35	1.2	39-5/40	+1	1		•	4	15	L	ST	T47	1	11			2					16,A
4	T-15(b)*LT*	•	3.9	26	1.3	2/35-5/40	+1	3/1	-FSR		2	19	L	1MT	T12.7	1(4)									17,A
4	ACG1(f) *LT*	•	16	33	1.5	6/37-5/40	0	2/1			3	10		RST	T47	1				4†					18†,A
2	T-32 *AG*	•	4.8	23	1.6	6/37-4/41	+2	2/1	-FSR		2	14		NT	B37	1			2						19,D
3	M3A1(a) *LT*		13	45	1.4†	7/44-45	+1	4/3	+SR		4	18		ST	T37LL	1			2	4	2	C3†			20†,A,B,C,L
3	M3A3(a) *LT*		14.5	46	1.4†	7/44-45	+1	6/3	+SR		4	17		ST	T37LL	1			2	4	2	C3†	sD3		20†,A,B,C,L
3	M3(a) PaK 40 *TD*		12	49	1.6	10/44-45	+1	6/3/★T†		•†[1]	2	14		NT	75L	1	10		2						21†,A,H[1],L
3	M3(a) FlaK 38 *SPAA*		12	38	1.6	10/44-45	+1	6/3/★T†		•†[1]	2	14		ST	20L	3(6)	10		2		†[2]				22†,A,H[1],L,AA[2]
3	AEC II(b) *AC*		13	58	1.4	10/44-45	0	6/3	+F		4	24[t]†		T	T57L	2	11			4		HE5/D4	sM8		23,A,G†,L
4	Nimbus *TDmc*		†	23	1.3	4/40	-1†	†			†	24	†	†	B20L†	2(6)	11†				2†			M8†	24†
3	VCL M1936(b) *aTt*	•	3	27	1.5	40-3/42	+2†	0			2	18[2]	L	1MT	CMG	1	11			6					25†,A,V
4	CTLS-4(a) *Tt*	•	7	22	1.5	2-3/42	+1	2/0	-F		2	16		1MT†	CMG	1	11			4					26†,A,V
3	M36 *AC*	•	6	29	1.4	36-5/40	+1	1/0			5	20		RST	T37L	2			2[R2]	2		HE10			27,✈
3	M38 *AC*	•	7	30	1.4	38-5/40	+1	1/0			5	22		RST	T37L	2			2[R2]	2		HE10			27,✈
3	M39 *AC*	•	6	31	1.6	39-5/40	+1	2/0	-F		6	25	L	RST	T37L	2			2[R2]	2		HE10			28,✈
3	Marm-Herr. III (b) *AC*	•	5	35	1.4	2-3/42	0	1/0	+SR		4	26[t]		ST	CMG	1	11			8†					29†,A,V
4	1/4-Ton Jeep(a) *tr*		1.5	15	1.2†	2-3/42	+2	★			*2†*	37[t]	L†		AAMG†	1					Opt2†			9PP/T10	30†,A,V
3+*3*	L5/30(i) *Tt*	•	6	22	1.6	11/40-45	+1	1			2	8	L	1MT	T37		11								31,A
3+*3*	L3/35(i) *Tt*	•	3.5	20	1.4-1.6†	11/40-45	+2	1/0			2	13	L		BMG	1	11		4						31,A,D
3+*3*	L6/40(i) *LT*		7	28	1.4-1.6†	11/40-45	+1	3/1	+F		2	14	L	1MT	T20L	1(4)	11			2					31†,A
3+*3*	M13/40(i) *MT*		14	33	1.6	11/40-45	0	3/3			4	11		RST	T47	1	11		4	4					31,A
4	FT-17M(f) *Tt*	•	7	16	1.2-1.6†	9/39-5/41	+1	1/0	+FSR		2	5†	L	1MT	CMG	1				4					32†,A,F
4	FT-17C(f) *Tt*	•	7	16	1.2-1.6†	9/39-5/41	+1	1/0	+FSR		2	5†	L	1MT	T37*			•				AP9			32†,A,F
3	R-35(f) *LT*	•	10	25	1.4-1.6†	9/39-5/41	+1	4	+FSR		2	8	L	1MT	T37*					2†[1]	†[1]	AP10			33†,A,E,F
2+*3*	M3A1(a) *SC*		5.5	31	1.4-1.5†	42-45	+1	0/0	+F	•	4	28[t]	H		AAMG†	2					6†			9PP†/T8	34†,A,V
3	C-K P17(f) *ht*		2.5	8	1.5	33-5/40	+1	★			*4*	11												5PP/T8	35†,A
3	C-K P19(f) *ht*		3	9	1.5	33-5/40	+1	★			*5*	14												9PP†	35†,A
4	VCL Utility B (b) *APC*		2	13	1.1-1.3†	35-5/40	+2	0		•†[1]	2	12	L											9PP/T10	36†,A,H[1],V
6	Light Truck *Tr*		1	12	1.0	39-41	+1	★			*4*	30[t]	L											9PP/T10	37
6	Medium Truck *Tr*		1.7	16	1.0	39-41	0	★			5	26[t]												21PP/T5	37
6	Heavy Truck *Tr*		2.5	19	1.2	39-41	-1	★			*7*	22[t]												29PP/T0	37

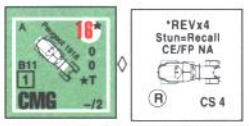


during the final days of retreat. There were two battalions (the 1st and 2nd *BCL* with 49 tanks each) and two companies of 7TPs (the 1st and 2nd *KCL*, both of the Warsaw HQ, with 11 tanks each) in existence. The 1st *KCL* is known to have been composed entirely of 7TPdws. A platoon of 7TPs consisted of five tanks.

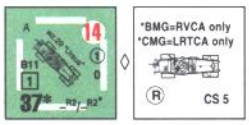
† The 7TPdw uses all special rules for two turrets (Polish Vehicle Note 2).



4. *H35(f):* Three French H35s were in Poland making trial runs for the Polish Army on September 1, 1939. These three tanks were integrated into the improvised unit *"Polkompania J. Jakubowicza"* and fought with group Dubno near the Ukrainian Front.

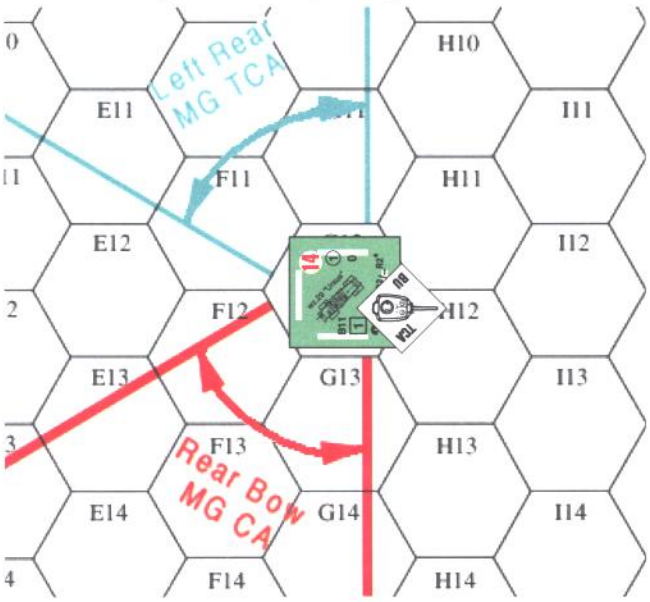


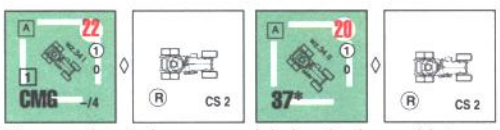
5. *Peugeot 1918(f):* In 1920, Poland purchased twenty Peugeot armored cars from France. Only a handful still existed in 1939, and these were in the hands of the *Katowicz* Police Forces. At the beginning of September 1939, these armored cars were integrated into the *"Freikorps"* group of the National Defense, renowned for having defeated the Germans near the mines of Michalkowic.



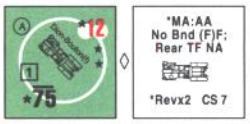
6. *wz.29 "Ursus":* Only eight of these ancient vehicles existed by September 1939, all in the 11th *DPny* of the *Mazowska BK*. They proved durable until taken off-road where they quickly earned a reputation as "incredibly unreliable" vehicles.

† The wz.29 *"Ursus"* has two MG: one *rear* BMG that fires through the vehicles *RCA* (as signified by "BMG=RVCA only" on the counter) and a *rear* CMG that fires through the vehicle's *left rear* TCA (as signified by "CMG=LRTCA only" on the counter). See diagram below:





7. *wz.34-I & II:* 86 of these light armored cars were manufactured by Poland in 1934. They consisted of a commercial chassis along with turret armor from obsolete Polish wz.28 armored cars. Three models of this armored car were built: the wz.34 and wz.34-I were both armed with a 7.92mm Hotchkiss MG and the wz.34-II was armed with a 37mm Puteaux SA 18 gun. The three models are referred to as either version I (representing both the original wz.34 and the wz.34-I) or version II. In September 1939, eighty wz.34s of all types were in front-line service, with several more serving in training schools of the Polish Cavalry. The wz.34 was used in 10 of the 11 armored groups of the *BK* (21st, 31st, 32nd, 33rd, 51st, 61st, 62nd, 71st, 81st and the 91st Armored Groups) with eight wz.34 AC in each: the HQ vehicle, the AC squadron leader, and 2 platoons of 3 vehicles.



8. *De Dion-Bouton wz.24(f):* Four World War I French De Dion-Bouton AA mobile guns (French Vehicle Note 23) with their De Dion-Bouton ammo trucks were still in service with the Polish Army in September 1939. These eight vehicles were used by a section of motorized AA Guns of the 1st Anti-Aircraft Artillery Regiment in Warsaw.

† This vehicle requires the use of an Ammo Vehicle (E10.) or Ammo Dump (E10.6) in order to fire (i.e., to be considered functioning armament).

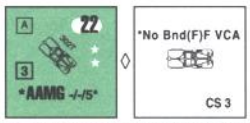
† The MA may not fire at a target that lies within the Dion-Bouton's rear target facing, nor may the TCA ever coincide with the vehicle's rear VCA, even when changing the TCA. These restrictions are signified by "Rear TF NA" on the counter. (For example, see the diagram accompanying French Vehicle Note 23.)

† Reverse movement costs this vehicle twice its normal hex-entry costs—as signified by "REVx2" on the counter.



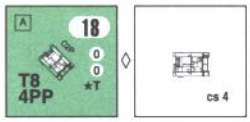
9. *PF 621L SPAA:* In 1936 the Polish Army decided to remount twelve of the wz.18/24 AA guns onto the more modern Polski Fiat 621L chassis. These twelve vehicles served in the 1st Anti-Aircraft Artillery Regiment in Warsaw.

† The MA may not fire at a target that lies within the Polski-Fiat's rear target facing, nor may the TCA ever coincide with the vehicle's rear VCA, even when changing the TCA. These restrictions are signified by "Rear TF NA" on the counter. (For example, see the diagram accompanying French Vehicle Note 23.)

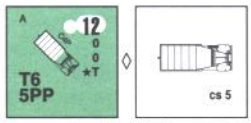


10. *302T:* An armed version of the Polish Polski-Fiat 508/518 light truck, dubbed the 302T, was produced at the PZInz factory in 1938-39 for the Cavalry and was to serve as a motorized *Taczanka* ("gun-cart"). The rear of the 302T was modified with a platform on which a wz.30 Browning HMG was fixed on an anti-aircraft mount. The 302T served in the heavy weapons sections of the 10th *BKM* and the *WBP-M*. Twelve 302Ts was the normal allotment to a cavalry MG company. A total of 86 motorized *"Taczanka"* were built.

† The 302T carries a 5FP AAMG which can be Removed (D6.631) as a 6FP dm HMG.



11. *C2P:* The C2P artillery tractor was a conversion of the TKS tankette chassis. Entering service in 1937, the first batch of 196 C2Ps was delivered in 1937 and into early 1938. A second production run (about 120 vehicles) was finished in 1939. Approximately 270 were in service in September 1939. The C2P artillery tractor was used to tow the 40mm Bofors wz.36 in various Polish Army formations (usually in four-gun batteries).

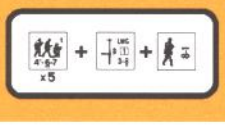


12. *C4P:* In 1934, studies were conducted by PZInz to modify the Polski-Fiat 621L truck into an artillery halftrack able to tow guns upwards of 155mm. Four hundred C4P/wz.34 tractors were produced, including approximately 330 tractors and ambulances. Thirty were of the "workshop" version. The game piece represents all three variants.



13. *Horse-Drawn "Taczanka":* A horse-drawn version of the 302T "Taczanka" was developed for use within cavalry units. Each infantry division had 132 wz.30 MG while the four Regiment Cavalry Brigades had 95. Most cavalry MG were mounted on horse-drawn Taczankas. The older wz.28 version was designed for the HMG Maxim Model 08 fitted with a shwarlose sledge mount. These were gradually replaced by the wz.37 which was hinged in the center to provide better turning and designed for the wz.30 MG (an unlicensed copy of the Browning water-cooled .30 caliber MG). The game piece represents both versions.

† The "Taczanka" is treated as a Horse-Drawn Transport (D12.) for all purposes except as noted.



Vehicle 13

† The "Taczanka" starts each scenario with a 2-2-8 crew as a Passenger that applies to the vehicle's PP capacity (D6.1).

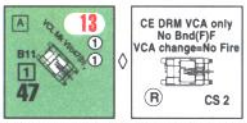
† The AAMG of a "Taczanka" is fired by a Good Order Passenger, but may neither Motion Fire nor Bounding (First) Fire—as signified by "No Bnd(F)F" on the counter. Furthermore, the AAMG of a "Taczanka" may not fire at a target that lies within the VCA as signified by "Fire VCA NA" on the counter. The AAMG may never be scrounged/Removed as signified by "AAMG no Scrounge/Removal" on the counter. Captured use penalties apply to the use by opposing forces of the AAMG but not to the "Taczanka" itself (A21.22).

† D12.2 *TRANSPORT:* A "Taczanka" may never combine with another Wagon.

† D12.3 *TARGET STATUS:* A "Taczanka" is treated as a Small Target (D1.73).

† D12.4 *GALLOP:* The AAMG of a "Taczanka" is eliminated on a Wreck Check dr of 6 as signified by "Wrck Chck dr 6=Elim" on the counter.

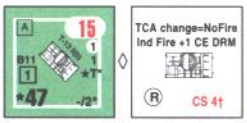
BELGIAN VEHICLE NOTES



14. *VCL Mk VI/c47(b):* In the early 1930s, Belgium ordered the British Vickers Carden-Lloyd carriers to perform towing duties for the 7.6cm mortar. The vehicle was ill-suited to the task. The Belgian army then decided to mount the 4.7 FRC mle 32 anti-tank gun on these vehicles, making it one of the very first self-propelled anti-tank guns in the world. The first six vehicles were allotted to the *Chasseurs Ardennais*. In May 1940, several were in service with the 8th Company and the 2 Regiment *Cyclistes Frontières* and saw combat along the Meuse River. In order to deliver accurate fire, the vehicle had to be anchored into the ground. The traverse of the gun was only 5 degrees so that the entire vehicle had to move to adjust the gun's line of fire.

† The Inherent crew receives a +2 CE DRM only to Direct Fire traced through the VCA as signified by "CE DRM VCA Only" on the counter.

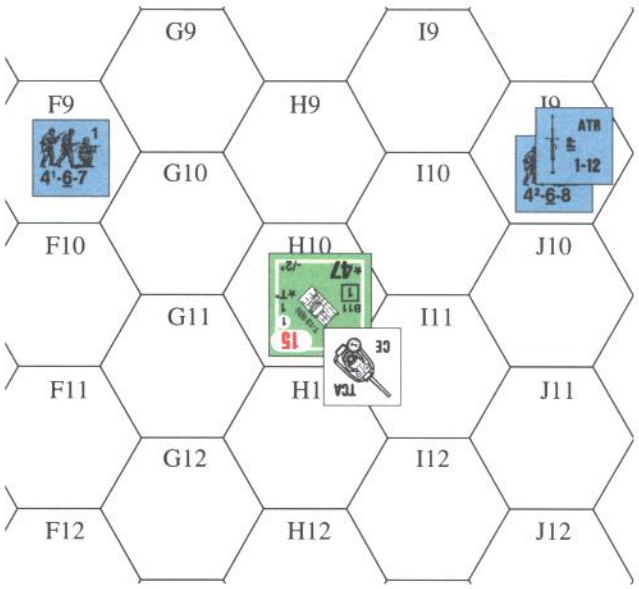
† This vehicle may not change VCA *and* fire its MA during the same phase (MPh and DFPh are counted as one phase) of any player turn as signified by "VCA change=No Fire" on the counter.



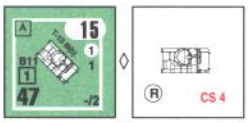
15. *T-13 Type II(b):* After rejecting the VCL Mk VI as too light for general use, the Belgians turned their attention to the export version of the Vickers Carden-Lloyd "*Dragon*" Mk I. At least 56 chassis were ordered, with 14 to be set aside for use as artillery tractors. The rest were equipped as "*auto-porté C 47 sur T-13*" (T-13 for short) for use with the *Chasseurs Ardennais* (30 vehicles) and the *Cyclistes Frontières* (12 vehicles) divisions. In 1938 330 of these vehicles were ordered. The T-13 was to equip the 16th Company of each of the 3 regiments in the *Chasseurs Ardennais*. Each of the twelve active divisions was to contain a company of twelve vehicles. Four vehicles were assigned to the 7th Squadron of each cavalry regiment, while the Brigade of Dragoons also had a company of 12 vehicles. The *Cyclistes Frontières* and two light regiments were also equipped with the T-13. The T-13s were an unusual vehicle in every sense of the word. The MA and CMG were mounted in a turret that was rear-facing. This rear-facing turret was unarmored in *its* rear (the vehicle's forward covered arc). To fire the weapons of this tank through any direction other than the rear of the vehicle, the crew had to fold down the armored sideplates of the turret—which also required the driver to exit the vehicle. Obviously this was not a tactic commonly used, nor was it encouraged, but should a situation arise in which the vehicle were to become immobilized or bogged it was used as a last resort if the crew needed to bring the guns to bear on a target outside the vehicles rear covered arc. This design concept was meant to show the defensive role of the vehicle as the Belgian government did not want to appear aggressive in that delicate era of neutrality.

† This vehicle's turret aspect (C3.9) is treated as unarmored to Direct Fire through its RTCA. If the TCA is different than the RVCA, however, the vehicle's turret aspect is treated as unarmored to Direct Fire emanating from outside the TCA, it receives a +1 CE DRM to Indirect Fire as signified by "Ind Fire +1 CE DRM" on the counter, and its CS# becomes **2**.

† This vehicle must be Stopped to change TCA and may not change TCA in the same phase (MPh and DFPh being counted as one phase) of any player turn it fires its MA/CMG and/or moves as signified by "TCA Change=No Fire/Move" on the counter.

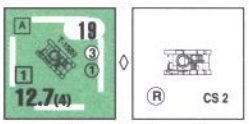


EX: Under normal circumstances, the T-13 II(b)'s TCA will be facing to the rear as shown. The 4-6-7's IFT attack (emanating from within the VCA) would treat the vehicle as unarmored, whereas both the IFT attack of the 4-6-8 and any hit by the ATR would treat the vehicle as armored. If, however, the TCA coincided with the VCA, then the IFT attack of the 4-6-7 would treat the vehicle as armored; any Turret Hit by the ATR would be against an unarmored Aspect and the IFT attack of the 4-6-8 would treat the vehicle as unarmored (since both attacks emanate from outside the TCA).



16. *T-13 Type III(b):* The late version of the T-13, designated Type III, received a new suspension and had a forward facing turret with full traverse capabilities. Weight was added which increased both MA accuracy and vehicle stability. The new Vickers Carden Lloyd chassis for this vehicle was built entirely in Belgium. An initial order for 194 T-13 Type III "tractors" was placed with the *Famillelureux* Construction Works (FRC) in 1938. An additional 158 vehicles were ordered in September of 1939. The T-13 Type III was used by the *Cyclistes Frontières*, as well as infantry and cavalry units.

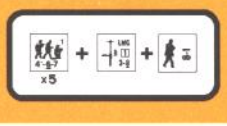
T-13s and T-15s (Vehicle Note 17) were often mixed at the platoon level. In actual use, T-13 units were often split up and the tanks used singly or in pairs.



17. *a.b./Mi T-15 (b):* In 1933 the Belgian Army decided to acquire a light tank to provide fire support to the newly motorized cavalry regiments. In March 1934, 18 Vickers Carden-Lloyd (VCL) light tanks (with a special turret) were ordered from Vickers Armstrong Ltd. in Britain. A second order of 24 vehicles was shipped in April 1935. The 1935 model of the VCL light tank built for Belgium had a more powerful engine than its English predecessor (model 1934) and its turret had a conical instead of a cylindrical shape. In Belgium, the tank was designated the *auto blindée mitrailleuse* (a.b./Mi for short) T-15 as an attempt to conceal the offensive potential of the vehicle. The T-15s were delivered without any armament but were fitted with 13.2mm Hotchkiss MG in the turret by the Belgians. After some trials, the 42 T-15s were dispatched to the three Regiments of the 1st *Division Chasseurs Ardennais* and to the six motorized regiments of the 1st and 2nd Cavalry Divisions. Theoretically, one platoon (*peloton*) of three should have equipped the 10th Motorcyclist Company of each *Chasseurs Ardennais* regiment, and one platoon of six should have equipped the 7th *escadron* of each of the six motorized cavalry regiments, but not all units received the full complement.



18. *ACG1(f):* Although actually a tank, this French design was considered an armored car. The ACG1 was supposed to equip the three French cavalry divisions, but the first vehicles delivered in March 1937 were unsuitable for service and discarded. After modification, Belgium purchased 12 AMC 35 ACG1 carriages in 1937, the first of which was used during the *Chasseurs Ardennais* trials in August 1937. The tank was judged too heavy for the terrain and given to the cavalry corps. The other eleven tanks were delivered on January 11, 1938 and sent to a factory in Gand where they were stored in an open



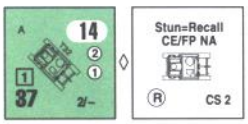
field without turrets. In the event of mobilization, the plan was for the ACG1 to be formed into a single tank company to be known as the *Escadron d'autos blindées du Corps de Cavalerie* (or a.b.C.C. for short), a name designed to conceal the fact that these actually were tanks. On January 9, 1939, the *Escadron* was mobilized even though its tanks were still turretless. In February 1939, eight of the tanks were fitted with the Belgian 47mm *FRC* anti-tank gun and a Hotchkiss 13.2mm CMG. The *Escadron* had two platoons of 4 ACG1s. The Germans captured a few of the surviving vehicles and used them as instructional vehicles, naming them *PzKpfw 738(f)*.

† The ACG1's CMG is treated as a 12.7mm machine gun, with a normal range of 16 hexes as signified by "CMG range=16 hexes" on the counter.

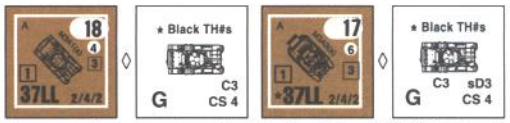
YUGOSLAV VEHICLE NOTES

At the time of the German invasion in 1941, the Yugoslav Army had two tank battalions. The *I Bataljon bornih kola* (I Bbk) was composed of 48 FT-17 and similar French-built tanks, and in 1937 a further squadron of 8 Skoda SId Czech tanks was added. The II Bbk was formed in 1940 with French Char R35s, but it is not clear how many arrived in Yugoslavia prior to French surrender. The III Bbk was to be equipped with Polish 7TP light tanks but this fell through with Poland's surrender in 1939; instead the unit was formed in the Soviet Union and composed of 120 BT-7s. The III Bbk was not fully formed when the Germans invaded in 1941 and never saw action. The actual role of the II Bbk during the invasion is not clear but upon Yugoslavia's demise, the equipment from this unit was turned over to the Rumanian army.

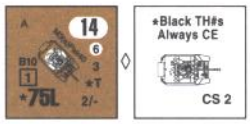
The Yugoslavs had a long tradition of guerrilla resistance to foreign invaders and no sooner had things quieted down after the German invasion than partisan bands began to form in the hills of the Yugoslav countryside. Over the next four years some of these bands united under Josef Broz Tito and became the largest and most successful of all of Europe's underground forces, being the only partisan force to liberate its own country. It was also the only resistance group to field substantial armored forces. The first tank of Tito's armored force was a French Char 39H which was captured from the Germans in Serbia on September 9, 1941, and saw extensive service well into 1944. Throughout 1942 additional tanks were captured, mostly from the Italians who had assumed the bulk of anti-partisan duties in this area of the Balkans. The Italian capitulation in 1943 and increased partisan activity led to the formation of a number of *tenk bataljon* (tank battalion) and *tenk ceta* (tank companies). The two largest were the *Tenkovski bataljon gs nov i po Hrvatkse* in Croatia, which fielded three *tenk ceta* with a total of 12 Fiats, 1 Hotchkiss, 1 Somua, and assorted auxilliary vehicles, and the *Tenkovski Bataljon 4. korpusa novj* in Slovenia, which fielded 1 AB41, 1 M13/40, 6 L6s, and 4 L3s. Both of these units were supported by motorized anti-tank sections using Italian trucks and 47mm Italian anti-tank guns, as well as captured German PaK 40 anti-tank guns. In the fall of 1943, Tito's partisans began to receive substantial Anglo-American assistance, in terms of both arms and training, and in early 1944 it was decided that an armored brigade would be formed. Veteran partisans were sent to North Africa and trained in the use of American and British armored fighting vehicles. In July 1944 the *I Tenkovski Brigada* (1st Tank Brigade) was formed at Bari, Italy. The tank component was broken into 4 battalions, each with two companies. Initially, brigade strength was 56 M3A1 and M3A3 Stuarts, 24 AEC Mk II Armored Cars, and additional soft-skinned vehicles. Brigade anti-tank companies were formed with the British 6-pounder. During 1945, the brigade strength was increased to 75 Stuarts. At the same time that the 1st Brigade was being formed in Italy, the *II Tenkovski Brigada* was formed in the Soviet Union, consisting of 2 battalions of two companies each, for a total strength of 64 T-34/85s. Both the 1st and 2nd Brigades saw action before the war ended. During the course of the war, Yugoslav partisans claim to have destroyed or captured nearly 900 German and Italian armored fighting vehicles.



19. *T-32:* In 1937, the Yugoslav army purchased 8 Czech-made SId assault guns from Skoda and designated them T-32. These 8 vehicles formed their own squadron and served in the I *Bbk* of the Yugoslav army during the fighting in 1941. These vehicles featured a 37mm vz 34 gun with a 7.92mm machine gun mounted in the right front portion of the hull. This tankette featured a crew of two and was used in action in 1941 against Germany in the fighting at the gates of Belgrad. The German Army designated captured vehicles of this type the *PzKpfw 32(j)*.



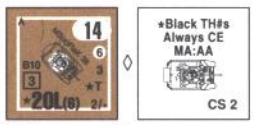
20. *M3A1(a) & M3A3(a):* 56 Stuarts were part of the initial allotment of vehicles given to Tito's partisans in Italy in July of 1944 by the British. This number was increased to 75 Stuarts in 1945. These tanks formed the backbone of the *I Tenkovski Brigada* (1st Tank Brigade). **RF is 1.4 in 7/44-12/44. RF is 1.2 and 1.3 respectively from 1/45-5/45**



21. *M3A3(a) PaK 40:* During the Yugoslav 1st Tank Brigade's drive to recapture their homeland, a battery of M3A3 Stuarts were upgunned and re-armed with captured German *PaK40* to provide infantry fire support and an increased anti-tank capability. The turret of the Stuart was removed, and the gun, carriage and all, was mounted in its place.

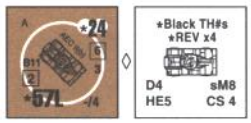
† A TK DR on a turret hit is resolved as if against an unarmored target.

† The Gunshield provides no protection for the vehicle, but Direct (only) Fire attacks vs the vehicle which emanate from within its VCA, and which do not destroy it, affect its *crew* as if the crew were manning a non-Emplaced, non-vehicular AT Gun.



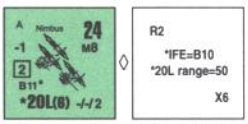
22. *M3A3(a) FlaK38:* This was another Yugoslav partisan effort to increase the firepower of the American Stuart, in the form of the German 2cm *FlaK 38* anti-aircraft gun. Unlike the *PaK 40* model, the gun on this vehicle was fully traversable.

† A TK DR on a turret hit is resolved as if against an unarmored target.



23. *AEC II(b):* In 1944, Tito's partisans received 24 AEC II armored cars from Great Britain which were used in the *I Tenkovski Brigada* (1st Tank Brigade).

DANISH VEHICLE NOTES



24. *Nimbus 20mm TD Motorcycle:* Mounting a 20mm anti-tank cannon on the sidecar, this quick, mobile anti-tank platform proved to be a somewhat effective solution. The gun could be driven into position quickly and immediately engaged by the dismounted crew.The Nimbus sidecar counter actually represents a team of soldiers and motorcyles. The sidecar mounting the 20mm cannon was supported by another sidecar mounting an anti-aircraft machine gun and 4-6 other motorcycles. Although the Nimbus frequently jammed, access to the drum made unjamming and repairing it a rapid process.

† All rules pertaining to motorcycles (D15.) apply unchanged to the Nimbus except as noted below.

† This vehicle starts each scenario with two 2-2-8 crews as Riders. Contrary to D15.4, a Nimbus with a disabled MA/AAMG may move even with only a HS or crew riding it. A SMC may create a single machine from a Nimbus Motorcycle counter but that machine cannot transport either of the weapons inherent on the Nimbus Motorcycle. Nimbus Riders may not Deploy.

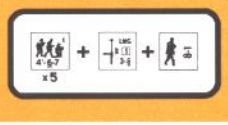
† The Nimbus has no portage capacity.

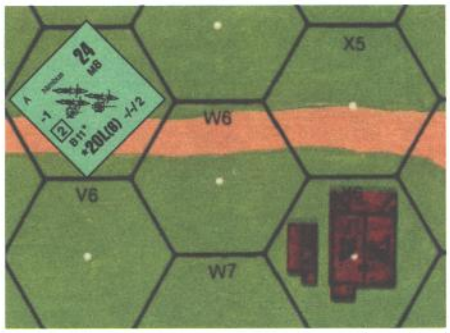
† The B# for the 20L MA is decreased by one to B10 when using IFE as signified by "IFE=B10" on the counter. The MA is repaired on a Repair dr of 1 or 2 or disabled on a dr of 6 as signified by "R2" and "X6" on the counter.

† The Nimbus MA may be fired by dismounted Infantry (only) in possession of the Nimbus and may do so as Bounding First Fire during its MPh. Such a possessed Nimbus (and its manning Infantry) may expend MP to change its VCA during the MPh while *Stopped* (even though unmounted) but at twice the normal MP cost (D2.11). Provided the manning Infantry retains possession of the Nimbus throughout the MPh, it may even (contrary to D6.4) mount the Nimbus after the vehicle has expended MP.

† *Case C:* Despite being NT, the Nimbus incurs a +2, not a +3, Case C To Hit DRM.

† The 20mm M-35 AT Gun (see Danish Ordnance Note 19) may be (un)hooked by dismounted Infantry in possession of the Nimbus at a cost of 2 MF (and 1/2 of the Nimbus' MP allotment); place a disabled MA counter on the motorcycle when unhooking the Gun.





EX: During the Nimbus' MPh it spends 1 1/2 MP to enter W6 and stop and spends another 6 MP (for a total of 7 1/2) for one 2-2-8 crew to dismount. This crew possesses the Nimbus and may fire the AT Gun in Bounding First Fire with a +2 Case C DRM (in addition to the +2 Case B DRM). The 2-2-8 Passenger crew may fire the AAMG with no penalty for Mounted Fire (although with the usual Bounding Fire penalty), but it may not at this point Abandon the Nimbus in order to Remove the MG (since Abandoning requires all the crew's MF). The dismounted crew fires the AT Gun and retains ROF. Wishing to fire again outside the VCA, the Nimbus (although still Stopped) changes its VCA (2 MP) and fires again (with the same +4 Case C DRM). The crew then re-mounts the Nimbus for another 6 MP (and a total of 15 1/2 MP). If the AAMG wishes to fire this turn, it must do so now (D3.51). The Nimbus then starts, enters X5, and stops for 2 1/2 MP (total of 18 MP). The crew dismounts again for 6 MP more, and fires on its last MP. Despite still retaining ROF, it cannot fire again in the MPh, but may fire once more in AFPh (D3.32).

In the Nimbus' next MPh, the dismounted crew unhooks the AT Gun for 2 MF while the mounted crew uses all its MF to Abandon the Nimbus and Remove a dm MMG. If both crews were mounted, one would first have to dismount at a cost of 1 MF before unhooking the Gun. If the crews had merely dismounted and moved away, a squad could subsequently enter X5 and Recover the Nimbus. It could then fire both the AT Gun and the AAMG (unqualified use for the former, but not the latter) or mount the Nimbus and drive away.

† A Rider may Remove the 2FP AAMG as a dm Allied Minor MMG by dismounting the Nimbus as if it were a crew Abandoning a vehicle and placing a disabled AAMG counter on the Nimbus.

† D15.46 *Wreck Check:* A Wreck Check dr of 6 results in a malfunction of both the 20L AT and the AAMG.

† D15.51 *KIA:* A KIA result vs a Nimbus' cyclist results in elimination of the Nimbus and all its still inherent weapons.

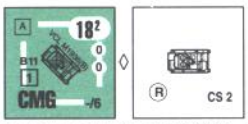
† D15.52 *K/#:* A K/# result vs a Nimbus' cyclist results in the replacement of the Nimbus counter with a regular half-squad motorcycle.

† D15.6 The AAMG of a Nimbus can be fired by Riders on the Nimbus (with no penalty for Mounted Fire D15.6) or, if riderless, by dismounted Infantry in possession of the Nimbus, in either case, with no penalty for Unqualified use. The Nimbus may be possessed by dismounted Infantry despite having Riders, thus allowing the AT weapon and the AAMG both to be fired in the same fire phase.

† D15.7 Captured use penalties apply to the use by opposing forces of the weapons still inherent to the Nimbus, but not to the vehicle itself.

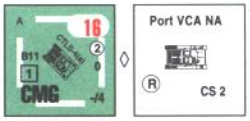
DUTCH VEHICLE NOTES

During World War Two, the Dutch Army, known as *Koninklijke Landmacht* (KL, Royal Land Forces), served only in the Netherlands; the *Koninklijk Nederlands Indische Leger* (KNIL, Royal Dutch Indies Army), served in the Dutch East Indies (now Indonesia); and the *Korps Marinier* (Marine Corps) served in the Netherlands, as well as in the Dutch East and West Indies. The KNIL was separate from the army in Holland, and often ordered its own equipment.



25. *VCL M1936(b):* The Dutch had placed an order with Vickers Armstong for 73 vehicles of the VCL Model B 1935 light tank (Chinese Vehicle Note 1) in 1935. At war's outbreak, fewer than 25 of these tanks had been received and were designated VCL model 36 *vechtwagen* ('fighting vehicle'). The KNIL's *Mobiele Eenheid* ('Mobile Unit'; the only armored Dutch unit in Java) had 2 platoons of 7 vehicles, with 3 vehicles in reserve. The Japanese managed to capture 15 vehicles when the Dutch surrendered and immediately pressed them into service.

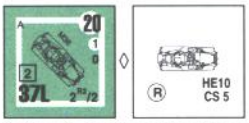
† The Target Size TH DRM is +3 (and also HD) if in a Water Obstacle or deep/flooded stream.



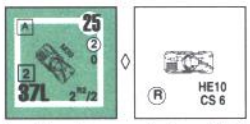
26. *CTLS-4(a):* In 1940, the KNIL began a major modernization program. With Europe, and the motherland itself, either actively preparing for war or actively fighting it, an alternate source of vehicles had to be found. This left only the U.S. as a procurement source, but most U.S. factories were already committed to the expansion of the American forces or to the newly-created Lend-Lease program. The search for a company with uncommitted capacity led to Marmon-Herrington and, in 1940, the KNIL ordered a total of 600 light tanks of various new models just entering production. The first to be produced was the CTLS-4 light tank. It was built in two versions, the difference being which side of the vehicle housed the driver (some sources say this was to cater to European countries whose civilian vehicles featured a right-side driver). Design and production problems delayed the initial order until just after war had broken out in the Pacific. The Japanese invaded the Dutch East Indies in January 1942. In mid-February, the first of twenty-four Marmon-Herrington CTLS-4 light tanks were delivered to the Dutch forces in Java. The tanks arrived without armament, but machine guns similar to the Browning .30 caliber were procured from the Dutch Air Force and used to equip the vehicles. The first seven crews to be trained in the tank were issued vehicles on February 27, the day before the Japanese invaded Java. The KNIL surrendered on March 8, 1942, and the Japanese occupation forces found over a dozen of these vehicles in working order and quickly put them into service.

† The CMG MA may not fire at a target that lies within the port side of the CTLS-4's VCA. In addition, the TCA may not move "across" that area when traversing. See accompanying diagram and example. These restrictions are signified by "Port VCA NA" on the counter.

EX: In the diagram, the CTLS-4 (a) can fire at a target in hex F11 or F10. It cannot fire at a target in E12 or F12. If it wishes to fire at a target in G13 or H13, it must traverse its turret clockwise; i.e., the turret may not traverse across hexside F11-F12.

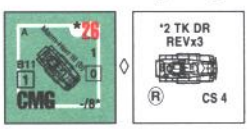


27. *Pantserwagen M.36 & M.38:* In 1935-36, the Dutch took delivery of 12 Landsverk L180 from Sweden and gave them the designation Pantserwagen Model 36. These vehicles were used to equip *1e Eskadron Pantserwagen* (1EPaw) stationed in s'Hertogenbosch. In 1938, a second squadron (2EPaw) was formed and stationed in Amersfoort. This unit was equiped with 12 Landsverk L182 (also from Sweden and designated Pantserwagen Model 38 by the Dutch Army). Along with this shipment came 2 M.38 command vehicles, one for each squadron. Both the M.36 and M.38 were medium armored cars armed with a Bofors 37mm gun and two Lewis 7.92mm machine-guns, but their armor was thin. The command vehicles only had dummy guns. Early during the German invasion, the 1EPaw operated in Gelderland and on the Grebbe Line. They were later ordered to fall back on Fortress Holland, a naturally defensible redoubt within Holland. The 2EPaw's armored cars were stationed at the airfields of Schipol (Amsterdam), Ypenburg (The Hague), and Waalhaven (Rotterdam). These M.38s, as well as the M.39s of the 3rd EPaw (see Vehicle Note 28) operated in the province of Zuid Holland (South Holland) where the majority of German airborne operations took place. When the country capitulated, some of its armored cars were destroyed by their crews, although most were captured by the Germans and put to use as police vehicles. The Danish army also bought 2 Landsverk L180 from Sweden but they are not believed to have seen action.



28. *Pantserwagen M.39 "Lynx":* In 1939, the Dutch formed and equiped the 3EPaw with 12 DAF Type 3 armored cars, given the designation M.39 by the Dutch Army. Built by the *Van Doorne Aanhanwagen Fabriek* (now known as the *Van Doorne Automobiel Fabriek*), the vehicle mounted a Bofors 37mm gun and a 7.92 machine-gun in the turret, as well as two 7.92 machine-guns in the hull. It featured all-wheel drive and had small roller wheels, mounted on the chassis about 18" above the ground, in front of the rear tires to prevent the low-sitting hull from grounding when crossing obstacles. Not all vehicles, though, were fully equiped by the time the Germans invaded.

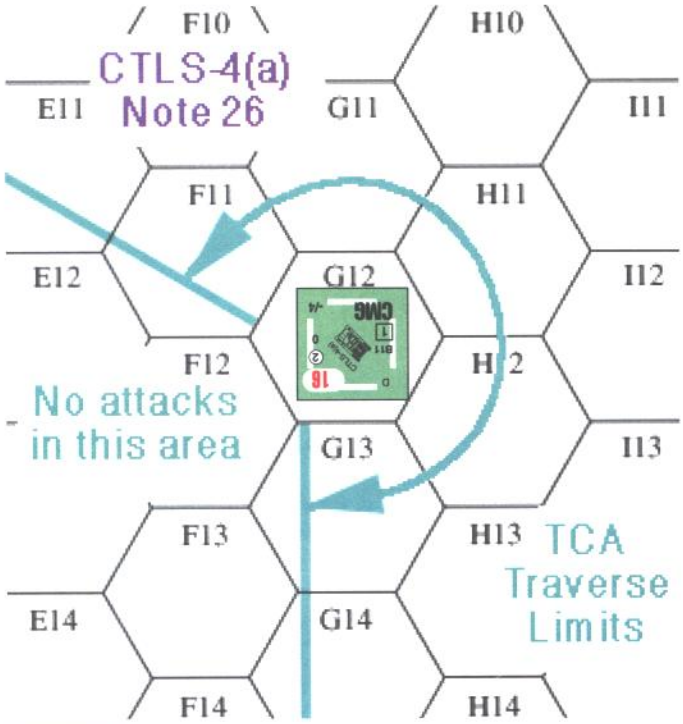
The Danish Army had purchased 3 DAF M.39s, but none saw action.



29. *Marmon-Herrington III (b) Armored Cars:* The British supplied the Dutch East Indies with the Marmon-Herrington III MFF (British Vehicle Note 48) after the vehicles had finished service with the British army in the Libyan desert. Approximately 50 arrived prior to the Japanese invasion but they did so with no main armament. The KNIL improvised by mounting twin Vickers machine guns in the turrets. The *Depot Vechtwagen* had 10 MH III armored cars assigned to it and they were almost all eliminated on 5 March 1942 in a battle outside Bandoeng.

† Make two To Kill DR on the MG column when using the AP To Kill Table; only one DR (firer's choice) is used.

† Reverse Movement costs this vehicle three times its normal hex entry cost– as signified by "REV x3" on the counter.



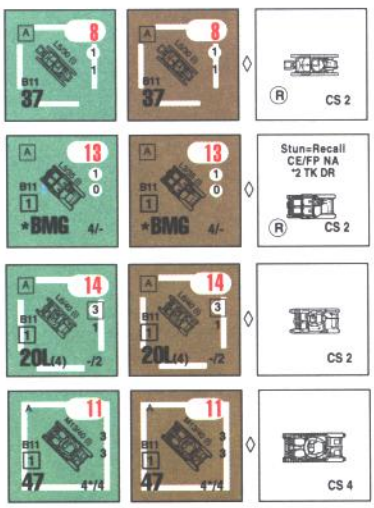


30. *Jeep(a):* The KNIL forces had approximately 110 US Willys Jeeps (U.S. Vehicle Note 54) in service when the Japanese invaded Java. They were issued to motorized *eskadrons* of the cavalry in 2 platoons (11 Jeeps each). Each platoon had a Vickers section which consisted of 2 Jeeps mounting Vickers MMG. The MG armed versions were labeled "Blitsbuggys" by the Dutch. In Java, they were found in *depot vechtwagens eskadrons HQ* of the KNIL with 6 Jeeps and in the *Verkennende en beveiligende Afdeling* (Mobile Recon Unit) which had one Jeep platoon assigned to it.

† If armed, the *Jeep* has an Inherent crew and thus a CS# instead of a cs#. The *Jeep's* optional AAMG is a MMG (RF 1.4) and may be Removed (D6.631) as such.

† This vehicle has Low Ground Pressure (D1.41). Moreover, when it is bogged, one (only) CX squad (even a Prisoner—but not a Guard) on foot expending ≥ four MF in the vehicle's Location (and declared to be assisting its unbogging) thereby allows the owning player to subtract two (one per crew/HS) from its immediately-subsequent unbogging DR.

COMMON ALLIED MINOR VEHICLES



31. *L5/30 (i) & L3/35 (i) & L6/40 (i) & M13/40 (i):* Tito's partisans and the Greek army were the main benefactors of captured Italian tanks and tankettes during WWII. Tito's partisans are known to have captured a significant number of L6/40 tankettes (Italian Vehicle Note 6) which were immediately pressed into service during the infant stages of the revolt and formed the first partisan tank brigade. The L3/35 (Italian Vehicle Note 2) was the first tank used operationally by the Greek army during the Greek-Italian war in 1940. During the Kalpaki-Kalama battle, 35 L3/35s were captured intact or recovered by Greek engineers. The Greeks formed an armored squadron with these tankettes which was part of the M.C.R., or Mechanized Cavalry Regiment. L3/35s also participated in the attack on the city of Argirocastro on 8 December 1940. Later, the surviving L3/35s were incorporated into the 19th Motorised Division and fought the German army in the Doirani area of Macedonia. The L5/30 (Italian Vehicle Note 1) and M13/40 (Italian Vehicle Note 8) also saw service with both Greece and Tito. **L3/35 RF is 1.4** for Greece in 11/40-5/41. **L6/40 RF is 1.4** for Yugoslavia in 42-44. **All other RF are 1.6.**



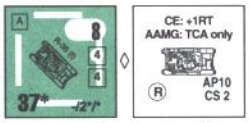
32. *FT-17M(f) & FT-17C(f):* Poland acquired 120 FT-17s (French Vehicle Note 1) along with the production license from France in 1919. Of these, 42 were armed with a MG only, while the other 78 were armed with a 37mm gun. The Poles then started to build their own upgraded version of the FT-17 at the CWS works of Warsaw. 174 were produced before 1936. In 1939 the Polish Army still had 102 operating versions of the FT-17 in service. About half of these were used by armored train units in a scouting role, with the remainder being used in three independent companies, the 111th, 112th, and the 113th *KCL*. Each *KCL* consisted of 15 FT-17s . These companies saw action around the fortress of Brzesc in the third week of the Polish Campaign. **RF is 1.2 from 9/39 -10/39.**

There were two FT-17Ms in service with the Dutch Army in 1940. **RF is 1.6 in 5/40.**

In the spring of 1941, the Yugoslav *I Bataljon bornih kola* (I Bbk) consisted of a combination of 48 FT-17s and similar French-built tanks. **RF is 1.4 in 4/41.**

At the start of the Italian invasion in 1941, the Greek army had 11 FT-17s acquired in the early 1930s. **RF is 1.6 from 10/40-5/41.**

† Minimum road-MP cost is one MP; i.e., no FT-17 may use the $^1/_2$ MP road rate even if CE—as signified by "Road Rate NA" on the counter.



33. *R-35(f):* In 1939 the Polish army received a battalion of 49 French R-35 light tanks out of an original order of 100. 45 of these tanks were used to equip the 21st *BCL*, which was only partially trained and was withdrawn into Romania without seeing any combat. The remaining 4 R-35s did see action in an improvised unit designated *"Polkompania J. Jakubowicza."* This unit was formed at Kiwerach on September 14th and included the three Hotchkiss tanks in the Polish arsenal. This group saw action with Group Dubno near the Ukrainian Front against both German and Red Army formations with one R-35 reported lost. **RF is 1.6 from 9/39-10/39.**

The Yugoslav II Bbk was to be equipped with 50 R-35s purchased in February 1940 from France, although it is unknown how many, if any, of these tanks reached Yugoslavia before the fall of France. **RF is 1.4 in 4/41.**



34. *M3A1 Scout Car(a):* This vehicle (U.S. Vehicle Note 39) was supplied to the *I Tenkovske Brigada* (1st Tank Brigade) of the Yugoslav Partisan army by the British in 1944. **RF is 1.5 from 7/44-45.**

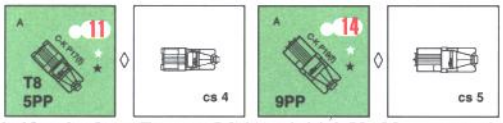
The Dutch KNIL had placed an order for 400 M3A1 Scout Cars from the U.S. but had only received 25 by the time the Japanese had invaded Java. They were armed with a Browning 12.7mm MG. **RF is 1.4 from 2/42-3/42.**

† Each M3A1 Scout Car (a) starts the scenario with an inherent crew, and also with a 1-2-7 Partisan HS or 2-3-7 Allied Minor HS (depending upon the nationality) as a Passenger that applies to the vehicle's PP capacity (D6.1). This vehicle can retain any unpossessed SW aboard it (D6.4), its crews/Passengers may Remove either of its MG, and Mounted Fire penalties (D6.1) do not apply to its Passenger(s). The MA is Removed as a dm .50-cal. HMG and the other MG is removed as a dm MMG.

† The AAMG FP actually consists of two MG: one .50-cal HMG (MA; 4FP) and one secondary .30-cal MMG (2FP)—as signified by "4MA&[red]2" on the

counter. The Inherent crew may fire only the .50-cal MA unless it is malfunctioned or disabled, in which case the Inherent crew may fire the secondary AAMG instead. Otherwise, only a Good Order *Passenger* may use the secondary AAMG (as signified on the counter by printing its FP in *red*). Assuming they are properly manned, the MA AAMG and secondary AAMG may be fired together as a FG or at separate targets (as per D3.5). *The secondary AAMG, when being fired by a Passenger, counts as use of a SW by that Passenger.*

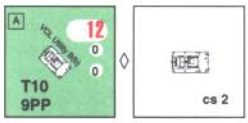
Each AAMG malfunctions and is repaired or disabled independently of the other. If the MA AAMG malfunctions, mark the vehicle with a "MA Malfunction" counter to show that its secondary AAMG is still usable. If the secondary AAMG malfunctions, mark it with an "AAMG Malfunction" counter. Since the ROF applies only to the MA (A9.2), the owner must announce before he fires that he is using the MA if he wishes to possibly retain a multiple ROF. An Armor/Passenger leader may direct the fire of more than one vehicular-mounted/Passenger-fired MG only if those MG are firing together as a FG.



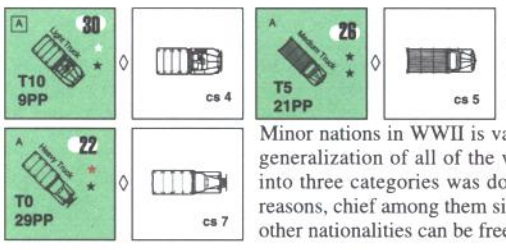
35. *CK P17(f) & P19(f):* In the early 1930s, Poland purchased 55 Citroen-Kegresse halftracks from France. Of these initial 50, 28 were model P17s and 22 were model 19s (French Vehicle Note 25). The former were used for towing artillery pieces in the 1st Regiment of Motorized Artillery (1PAMot). There were two sections of Motorized artillery in September of 1939: the 2nd Light in the Warsaw Mechanized Brigade, and the 6th Heavy attached to Army Lodz.

Belgium purchased the P14 in the early 1930s to be used for towing heavy artillery guns—the 120mm FRC M31 and 155mm howitzers. The vehicle served in this capacity so well that the Belgians purchased a license to build it themselves. The *CK P17(f)* with a Towing Number of 3 and a BPV of 10 can be used to represent the P14, **RF is 1.5**.

† Prior to setup, and in addition to the normal A2.9 10% Deployment allowance, the Polish/Belgian player may freely Deploy a number of squads sufficient to provide one Passenger HS for each *C-K P19* in his OB—excluding each such vehicle that will set up "towing"-a-gun/carrying-a-crew. These HS may Recombine (and the resulting squads may Deploy) as if they were Carrier HS and these vehicles were Carriers (D6.82).



36. *VCL Utility(b):* Belgium ordered 262 of these light tractors from Great Britain in 1935. The Belgian army used this vehicle to tow the 47 FRC ATG (mle 32). Belgium later produced 550 of these tractors under license, including 50 for the KNIL, which used them on Java. Although dubbed "utility" by the Belgians, this vehicle proved unreliable in service as it could not withstand long distance travel. It was used mainly by the infantry regiments of the first 12 infantry divisions and also by the *Carabiniers Cyclistes*. A few also served with cavalry regiments. Each 47mm ATG company had 12 utility tractors, with another three held in reserve. Those captured by the Germans were used as *ArtillerieSchlepper VA 601(b)*. **RF is 1.3 for the Netherlands in 5/40, 1.1 for Belgium in 5/40.**



37. *Light Truck & Medium Truck & Heavy Truck:* The list of trucks used by the Allied Minor nations in WWII is varied and long. The generalization of all of the various truck types into three categories was done for a variety of reasons, chief among them simplicity. Trucks of other nationalities can be freely used as needed.

ALLIED MINOR MULTI-APPLICABLE VEHICLE NOTES

A. The following apply regardless of the counter's nationality, except as stated otherwise:

• "(a)", "(b)", "(f)", or "(i)" in the piece name stands for "American", "British", "French", or "Italian" respectively, for ESB (D2.5), Hammada Immobilization (F3.31), Sand Bog (F7.31), etc., purposes;

B. 37mm canister has 12FP.

C. May be equipped with a Gyrostabilizer as per D11.

D. If Stunned, this AFV may not regain CE status, may not fire a weapon, and is Recalled as per D5.341; these are signified by "Stun=Recall & CE/FP NA" on the counter.

E. The CMG may be repositioned as a 2-FP AAMG. This can be done only by placing an AA counter on the AFV at the end of any friendly fire phase (not MPh) in which its Inherent crew is CE and could have fired the MG (even if malfunctioned) but did not. This AAMG may fire only at a target that lies within the AFV's TCA—as signified by "AAMG: TCA only" on the counter. The AAMG may be repositioned as the CMG by using these same principles to remove the AA counter. This MG may be Scrounged (D10.5).

F. The CE DRM is +1 vs Indirect Fire, as well as vs Direct Fire that emanates from within the *turret's* rear Target Facing—as signified by "CE: +1 RT" on the counter.

G. Reverse Motion costs this vehicle four times its normal hex-entry cost- as signified on the counter by "REVx4".

H. This vehicle is always CE as signified by "Always CE" on the counter—it may never become BU.

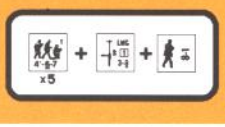
K. Both MA MG are B11. This is signified by "B11" in *red* on the counter (**bold** in the vehicle listing).

L. The MA uses black TH numbers (unless captured), as signified by "Black TH#s" on the counter;

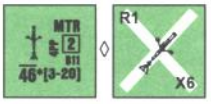
Q. The MA may use neither Bounding (First) Fire nor Motion Fire as signified by "No Bnd (F)F" on the counter.

V. This vehicle was used by the Dutch only in Java in 2/42-3/42 [EXC: if "~~V~~" appears, it was used only in the Netherlands in 5/40].

AA. The MA has AA capability as signified by "MA:AA" on the counter.



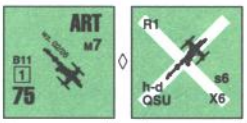
POLISH ORDNANCE NOTES



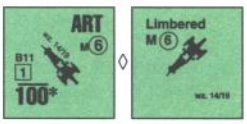
1. *Granatnik wz. 36 :* Fire support in both infantry and cavalry units was provided by wz.30 and wz.36 platoon mortars. These small 46mm mortars were of Polish design and fired a .76kg round. Around 3850 were produced through 1939 and 81 were issued to each infantry division with three per company.



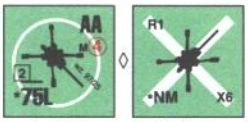
2. *"Ur." wz. 35 :* Often described as one of the most successful anti-tank rifles of its day, the Polish 7.92mm wz. 35 "Ur" was lighter by a wide margin than most foreign counterparts and also pioneered the use of sub-calibre (i.e., APCR) ammunition. The latter aspect was quickly copied by other armies for some ATR and AT guns. Despite the high muzzle velocity, the small calibre and lighter weight of the projectile robbed the ATR of much of its effectiveness. The success of this ATR in 1939 was due as much to the thin armor found on contemporary German and Soviet AFVs as it was to the use of APCR ammunition. 3500 were produced and kept in sealed boxes labeled "Rifles for Uruguay" (hence the "Ur" designation). Although they were not issued until the war actually began, the fact that they functioned just like normal bolt-action rifle greatly simplified training and actual usage. The game piece also represents the British Boys ATR used in limited numbers by the Greeks.



3. *75mm wz. 02/26:* A rechambered version of the Russian Putilov 76.2mm Model 00/02 (see Russian Ordnance Note 13) gun adapted to fire French 75mm ammunition. Nearly 450 were in Polish service in 1939. In spite of its antiquity, it was suprisingly successful against armor—mainly because of the crews. Horse artillery crews were the elite of the Polish cavalry.

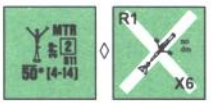


4. *100mm wz.14/19:* A small number of these Italian Skoda guns were purchased in the early 1930s, along with a license to produce them (see Italian Ordnance Note 12). Approximately 900 were in service at the outset of the war.



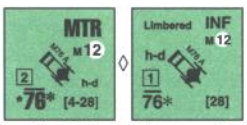
5. *75mm wz. 97/25:* This counter represents four different models of French 75mm AA guns (see French Ordnance Note 21): the Model 17 mobile towed AA gun, the Model 97 and 97/25 semi-mobile AA guns, and the model 75mm wz. 22/24 gun commonly emplaced in static defense positions. 110 of these various guns were in Polish service. This piece (with a Manhandling # of 8 and **RF of 1.6**) also represents the 75mm AP wz.36 (*"armata preciwlotnicza"* or anti-aircraft gun) which was the only Polish artillery piece designed and built in Poland. It entered service in 1936, and although 342 guns had been built by the war's outbreak, only 44 had been delivered to their respective units.

BELGIAN ORDNANCE NOTES



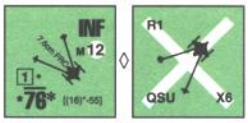
6. *DBT:* Designed by Belgian Denis-Bertrand-Trois (hence the name), the DBT was a small mortar launching a 600g grenade from 130-585 meters. The grenade fuse was non-adjustable, exploding 12 seconds after launch. This often resulted in the grenade rolling around for several seconds after launch. This often resulted in the grenade rolling around for several seconds after landing, thus allowing the target to take cover.

† Due to the fuse delay, the DBT does not generate an Air Burst (B13.3).



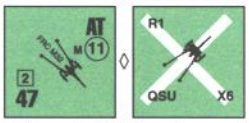
7. *M76A:* Between the two world wars, the Belgian army searched for a replacement to the old short-barreled Schneider 75mm guns and DBT mortars. Low military budgets forced the use of captured German WWI trench mortars. A large stock of 76mm German *Minenwerfers* were still available with an ample supply of ammunition. Called the *Mortier de 7.6cm Allemand (M76A),* this gun had a small removable wooden wheeled carriage that could be horse-drawn. To fire the mortar indirectly, the wheels were removed and the gun was set on a platform. Direct fire was possible with the wheels in place. This mortar was used against vehicles and tanks as well as personnel. Unloading the mortar from the caisson required approximately 5 minutes and was a strenous task at best. The gun could be manhandled by six men or dismantled and carried by nine. They were used in the *"batteries d' infanterie"* with 12 guns per battery, each battery having four sections of three guns.

† This weapon may be Pushed or Towed (as if a non-Mortar) in either Limbered or Unlimbered mode, but may only use Direct Fire while Limbered. While Unlimbered, it may only use Indirect Fire (as if a Mortar).



8. *7.6cm FRC:* Another model of WWI German trench mortar pressed into service after major changes were made by the *Fonderie Royale de Canons* (FRC). The gun was restored in a way to allow it both direct and indirect firing capabilities from the same carriage, a significant enough change to warrant building a completely new version. The new carriage had split trails and two metal wheels, and could be transformed into a trench mortar by simply removing the trails (which gave it a trajectory of 45-80 degrees and a range of 650-2200 meters). A Belgian infantry regiment contained 2 platoons with 2 sections of 2 guns each in the *battalion d'engins* (heavy weapons battalion). 198 were available in May 1940.

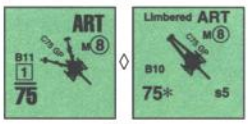
† This Gun may also use Indirect Fire, for which purpose its range is "16-55" hexes and its ROF is 3 (if using Direct Fire it has no such minimum range and a ROF of 1). All rules applicable to firing a MTR (including the possibility of Spotted Fire and retaining Multiple ROF) apply to this Gun for Indirect Fire purposes. However, it may not use both Direct and Indircet Fire in the same phase (treating the MPh and DFPh as one). Switching from Direct to Indirect Fire or vice-versa does not cause loss of Acquisition.



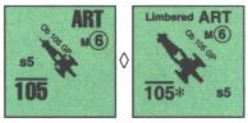
9. *C47 FRC M32:* Each infantry division had one company of 12 guns shared by three batteries of 4 guns each. The Model 32 was manufactured by FRC and nicknamed the *"quatre-sept"*, or forty-seven. It was used to equip the T-13 and ACG1 tanks, and was also used in pillbox fortifications. The gun had a two-trail carriage and was transported on wheels that had to be removed when setting the gun into firing position.



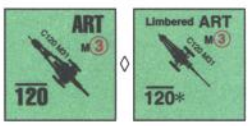
10. *C75 TR:* This gun was a licenced version of the German Krupp 75mm M1905 field gun built by FRC. It was the main artillery piece of the Belgian army. 1 battery equalled 3 guns, 3 batteries equalled a group. The C75 TR (TR stands for *"tir rapide"*, or quick shooting) often equipped two groups of an artillery regiment. 396 pieces were in service in 1940, all horse-drawn. (See Japanese Note 12.)



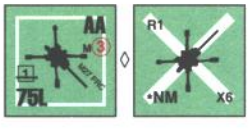
11. *C75 GP:* The *canon de 75 Grande Portée* was a 1918 modification of the standard Belgian C75 TR involving a marriage of the Belgian 75 to the German WWI *10.5cm leFH 16*'s field carriage (types I and II are identical for game terms). These guns were used by the Germans as the 75mm *FK 233(b)* and *234(b)*. This gun had pneumatic tires for transport, but used standard artillery wheels while firing. In an emergency, the gun could be fired while on transport tires for a short time. Three four-gun batteries formed an artillery group. Most artillery regiments had four groups towed by Latil tractors. This piece also represents the horse-drawn type III used by the cavalry.



12. *Ob 105 GP:* With three 4-gun batteries, this light howitzer equipped the *II/9 Regiment d'Artillere d'Armée.*



13. *C120 M31:* The *Canon de 120 L Modele 1931* was the most modern artillery piece used by the Belgian army in 1940. It equipped the 4th group of the *XIV* and *XVI Regiments d' Artillere.*



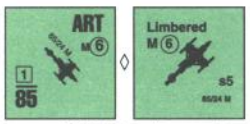
14. *M27 FRC:* Built by the FRC and entered service in 1927, the *Modele 27* fit on a trailer and, like other mobile 75mm AA guns of its day, was difficult to move and set up.

DUTCH ORDNANCE NOTES

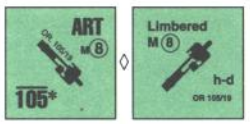


15. *Solothurn s/18-1100:* This relatively heavy, but very powerful, anti-tank rifle was usually mounted on a wheeled carriage. Three hundred had been ordered from Switzerland but the Dutch homeland had only 90 on hand (the KNIL in the Dutch East Indies had 70). The Germans captured some of these and gave them to the Italians, Hungarians, and Rumanians.

GREEK ORDNANCE NOTES



16. *Vari 85/24 M:* This Schneider produced 85mm model 1924 howitzer was designed to meet Greek needs for a direct fire, high velocity heavy gun ("vari" is Greek for heavy) with the capability to use the high trajectory fire of a normal field howitzer. 48 were in service in the Greek heavy artillery regiments.

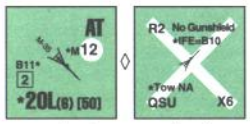


17. *OR 105/19:* This was the companion piece to the 75/19 in divisional artillery regiments. 120 were in service (see French Ordnance Note 12).



18. *3.7cm Bofors AA:* The Greek army had 56 of these guns available in 1940 for AA defense (see Russian Ordnance Note 25).

DANISH ORDNANCE NOTES

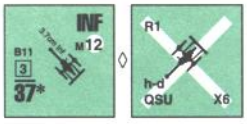


19. *Machinecannon 20mm M-35*: The Danes foresaw the use of armor in the upcoming conflict, but were almost powerless to defend against it. A limited pre-war defense budget forced the use of weapons initially designed for one role to serve dual-purpose roles once the war broke out. One such weapon was the Madsen 20mm Autocannon. Initially designed for Denmark's airforce, the Autocannon was converted to use on the sidecar of the Nimbus motorcycle (see Allied Minor Vehicle Note 24) and pressed into both anti-personnel and anti-tank roles.

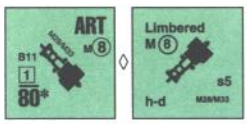
† The B# for the M-35 is decreased by one to B10 when using IFE as signified by "IFE=B10" on the counter. The M-35 is repaired on a Repair dr of 1 or 2 and removed on a dr of 6 as signified by "R2" and "X6" in the corners of the counter.

YUGOSLAVIAN ORDNANCE NOTES

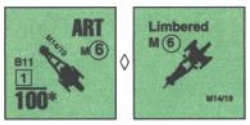
In total, the Yugoslav artillery park numbered some 7000 guns, of which 4000 could have been termed modern. These included 356 mountain guns, 300 field guns, 732 100mm howitzers, and 44 very heavy guns. Much of this equipment ended up in Italian hands. Tito's Partisans used various captured Italian and German ordnance pieces and from July 1944 were supplied with British 6-pounder AT guns.



20. *3.7cm Infantry Gun:* This piece represents the various WWI-vintage infantry guns in use, including the Skoda 37mm M86, the Krupp 37mm M14, the Hotchkiss 37mm M14, and the Russian 37mm PP obr. 15R (see Russian Ordnance Note 11). Such guns were usually found in heavy weapons battalions of four guns. Other Allied nations used these and similar guns, but not in appreciable numbers.

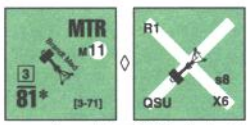


21. *80mm M28 and M33:* 132 of these *Skoda 8.35cm vz 18* guns were in service with territorial defense units. A battery of guns was usually paired with a company of 6-8 HMGs.



22. *100mm M14/19:* This was an old Austro-Hungarian howitzer from Skoda (see Italian Ordnance Note 12). After capture by the Germans, it was known as the *10cm leFH 318(j)*, but most were given to the Italians.

ORDNANCE COMMON TO ALLIED NATIONS



23. *Brandt Medium Mortar:* Various versions of the French 81mm mortar were used in just about every army that wielded infantry support weapons. Bought, sold, and sometimes stolen, it was the staple of the modern infantry company from the 1930s into the 1950s. (See French Ordnance Note 3.)

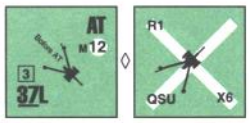
(Belgium 5/40 RF 1.3)

(Greece 10/40-5/41 RF 1.5)

Norway *81mm bbk:* The *bbk* was issued two per infantry battalion and dragoon regiment, and saw extensive action on all fronts during the Norway campaign. **(4/40-5/40 RF 1.1)**

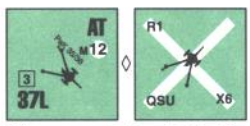
Poland *wz. 31:* There were approximately 1200 81mm mortars in the Polish arsenal by 1939. Distribution to their allotted infantry units was uneven due to incomplete plans to equip each infantry battalion with 4 pieces. Independent HMG companies had 6 to 9 mortars, while "*KOP*" battalions and cavalry regiments were issued 2. **(9/39-10/39 RF 1.2)**

Yugoslavia *81mm M31:* 1600 were in service as the standard mortar in independent mortar companies. **(4/41 RF 1.1)**

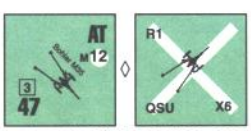


24. *37mm Bofors AT:* Along with the German PaK 36, this Swedish-designed weapon was one of the most important and influential anti-tank guns of 1930s and early 1940s. After some tinkering, a simplified version with a sharply sloped gunshield was settled on, and it was bought, licensed, and copied by at least 7 different nations in the 1930s. The British army in Egypt acquired some and used them in North Africa in 1941-42. A variety of mid-war Japanese and Russian anti-tank gun designs suggest that the Swedish Bofors was an integral part of their design. By 1939, Poland had about 1200 *wz. 36* in service which were credited with 120-150 tank and 100 armored car kills during the brief campaign. Nearly all were horse drawn, excepting those of the mechanized brigades and motorized anti-tank companies which used PZInz 302T artillery tractors or transported the guns *en-portée* on P-F 621L or Ursus (i.e., Medium) trucks. See French Multi-Applicable Ordnance Note P for the *en-portée* mechanics. **(9/39-10/39 RF 1.0)**

Denmark acquired some of the early versions and then put the Danish Madsen firm to work manufacturing a licensed-built version designated the *37mm fodfolkskanon M-1937*. **(4/40 RF 1.2)**



25. *3.7cm PanzerabwehrKanone 36:* The German 3.7cm PaK 35/36 was the most widely distributed anti-tank gun of WWII. Over 20,000 were manufactured during the course of the war. In addition to Germany and the USSR, this gun was bought by Czechoslovakia, Estonia, Finland, Greece **(10/40-5/41)**, Japan, Spain, and Turkey, as well as being the model for versions by the U.S. and the Netherlands (which this piece also represents **[5/40]**, and which equipped its *Pantserwagon* armored cars). This counter also represents the *Skoda M38* used by Yugoslavia in companies of 12 guns **(4/41)**. Although the PaK 36 was capable of being carried *en-portée*, the Allied nations appear not to have done so. (See German Ordnance Note 6.)

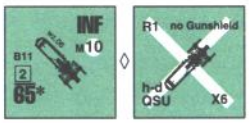


26. *Bohler M35 47mm:* Manufatured and designed in Austria, the Bohler represented the Netherlands' only larger caliber anti-tank weapon. 1200 had been originally ordered but there were only 370 in the homeland at war's outbreak **(5/40 RF 1.2)**. 30 were in service with the KNIL in Java, only half of which had full supplies of ammunition **(2/42-3/42 RF 1.5)**. The Dutch gun was very similar to the Italian *Cannone da 47/32* (Italian Ordnance Note 5) but some were modified by adding a gunshield and towing eyelet. This piece also represents the *Breda ZBM39*, of which 120 were in service with Yugoslavia. **(4/41 RF 1.4)**



ALLIED MINORS ORDNANCE LISTING

#	Name	Type	CSize	ROF(IFE)	B#	Range	M#	TSize	Dates	Special	BPV	RF	Notes
5	46mm granatnik wz. 36	MTR	46*	2	11	3-20	—	—	9-10/39	4PP	—	—	1,A,P
5	Ur wz.35	ATR	ATR	1		1-12	—	—	9-10/39	1PP	—	—	2,P
3	75mm wz. 02/26	ART	75	1	11	267	7	0	26-39	NT, QSU, s6, h-d	29	1.3	3,P
3	100mm wz. 14/19	ART	100*	1	11	232	6	0	33-39	NT	28	1.3	4,A,P
3	75mm wz. 97/25	AA	75L	2			4	-1	35-39	T, NM	27	1.4-1.6†	5†,P
5	DBT	MTR	50*	2	11	4-14	—	—	5/40	3PP,†	—	—	6†,A,B,D
4	M76 A	MTR	76*	2		4-28	12	+1	18-5/40	NT,QSU†,h-d,LF†[INF]	27	1.2	7†,A,B,D
3	7.6cm FRC	INF	76*	1(or 3)		(16)†-55	12	+1	24-5/40	NT,QSU,†	30	1.4	8,B,A
4	C47 FRC M 32	AT	47	2		150	11	0	33-5/40	NT,QSU	28	1.2	9,B
4	C75 TR	ART	75	1	11	225	9	0	17-5/40	NT,QSU,s5,h-d	26	1.0	10,B
4	C75 GP	ART	75	1	11	275	8	0	18-5/40	NT,s5,LF[75*,B10]	24	1.0	11,B
4	Ob 105 GP	ART	105			275	6	0	26-5/40	NT,s5,LF[105*]	32	1.3	12,B
3	C120 M31	ART	120			438	3	-1	34-5/40	NT,LF[120*]	37	1.3	13,B
3	M27 FRC	AA	75L	1		245	3	-1	27-5/40	ST,NM	24	1.4	14,B
5	Solothurn s/18-1100	ATR	20L	2		1-12	—	—	5/40-3/41	5PP	—	—	15,A,Ne
3	Vari 85/24 M.	ART	85	1		375	6	0	27-41	NT,s5	25	1.6	16,Gr
4	OR 105/19	ART	105*			196	8	0	30-41	NT,h-d	28	1.3	17,Gr
3	3.7cm Bofors AA	AA	37L	3(8)		200	8	0	39-41	T	30	1.6	18,Gr
4	Machinecannon 20mm M-35	AT	20L	2(6)	11†	50	12†[1]	+1	40	NT,QSU†,R2,IFE=B10	25	1.2	19†,Da,T[1]
4	3.7cm Infantry Gun	INF	37*	3	11	80	12	+1	30-41	NT,QSU,h-d	20	1.1	20,Y
4	80mm M28/M33	ART	80*	1	11	210	8	0	33-41	NT,s5,h-d	24	1.3	21,Y
4	100mm M14/19	ART	100*	1	11	232	6	0	19-41	NT	25	1.2	22,Y
4	Brandt Medium Mortar	MTR	81*	3		3-71	11	+1	30-41	NT,QSU,s8	28	1.1-1.5†	23†,A,B,Gr,N,P,Y
4	37mm Bofors AT	AT	37L	3		177	12	+1	36-41	NT, QSU	26	1.0-1.3†	24†,A,Da,P
4	3.7cm PaK 35/36	AT	37L	3		120	12	+1	5/40-5/41	NT,QSU	28	1.4†	25†,Gr,Ne,Y
3	Bohler M35 47mm	AT	47	3		107	12	+1	35-4/41	NT,QSU	30	1.2-1.4†	26†,A,Gr,Ne,Y
3	65mm wz.06	INF	65*	2	11	162	10	+1	19-41	NT,QSU,no Gunshield,h-d	23	1.1-1.5†	27†,A,Gr,P,Y
4	75mm wz.97	ART	75	1		277	8	0	00-41	NT,QSU, s8	33	1.0-1.3†	28†,A,Gr,N,P
4	Bofors M34	ART	75*	1		233	10	+1	34-5/40	NT,QSU	24	1.2-1.4†	29†,A,B,Gr,Ne,N
3	75M 19S	ART	75*	1		225	9	0	19-41	NT,QSU,s6,AP5,h-d	23	1.2-1.5†	30†,A,Gr,P,Y
3	C105 L 13 S	ART	105			308	5	-1	20-4/41	NT	26	1.4-1.5†	31†,B,P,Y
3	120mm wz. 09/31	ART	120*	1	11	310	8	0	31-39	NT, s6, h-d	30	1.4-1.6†	32†,N,P
3	155mm 17S	ART	155*		11	282	6	-1	20-39	NT, s8	39	1.4	33,B,Gr,P,Y
3	Mitrailleuse de 13.2 CAJ	AA	12.7	3(12)		16†	6†[1]	+1	31-5/41	T,2 TK DR†,Towing NA†[1]	28	1.3-1.5†	34†,T[1],B,Gr,Y
4	Oerlikon 20mm	AA	20L	3(4)		125	12	+1	30-5/41	T,LF [NT,20†[1],2 ROF, B11]	29	1.3-1.5†	35†,C[1],Gr,Ne,Y
4	40mm Bofors	AA	40L	3(8)		247	8		38-41	T, LF[40†[1], 2 ROF]	40	1.1-1.3	36†,C[1],B,Gr,N,P

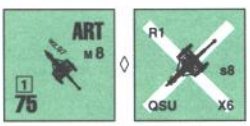


27. *65mm wz.06:* The Polish army had three batteries of the old Model 06 65mm mountain gun (see French Ordnance Note 9). They served with the 151st-153rd Mountain Gun Batteries. The gun was horse-drawn unless good roads existed for it to be towed upon. **(9/39-10/39 RF 1.5)**

This gun was the standard light mountain gun in the Yugoslav army **(4/41 RF 1.1)**

Acquired from France, the Greeks assigned several *Canon de 65 M mle 06* to each infantry regiment. **(10/40-5/41 RF 1.4)**

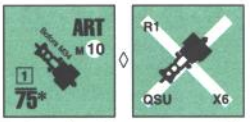
Designated the *6.5cm Gebirgsgeschutze Modell 91 System de Bange*, the official war record of the Norweigan army states that as many as 48 65mm mountain guns were on hand, although this outdated gun was most likely pulled from duty prior to the German invasion. **(4/40-5/40 RF 1.5)**



28. *75mm wz.97:* 1374 were in the Polish inventory on September 1, 1939. These were the famous French "*soixante-quinze*" of WWI (see French Ordnance Note 11) used as towed AT guns. **(9/39-10/39 RF 1.0)**

In Greece it was called the 75mm "*pedinon*", and equipped the 1st, 2nd, 3rd, and 4th Field Artillery Regiments. **(10/40-5/41 RF 1.3)**

This piece (but with no Smoke, BPV 30) also represents the Norwegian *Feltkanon/M01*, Norway's standard light artillery piece. The Ehrhardt firm of Germany produced 139 of these for Norway, which used them in two four-gun batteries per artillery battalion. **(RF 1.2)**

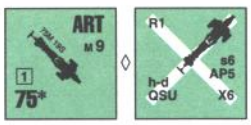


29. *Bofors M34:* Designed and manufactured by Bofors, this gun was sold as a mountain artillery piece during the twenties and proved to be a very reliable weapon. The Netherlands bought a significant number for the defense of Indonesia. The gun could be dismantled in 8 parts and transported by mules or towed by four horses The Japanese captured many of these and used them while ammunition was available. **(2/42-3/42 RF 1.2)**

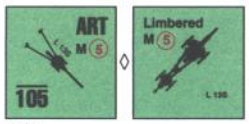
For the Belgians, Bofors created a special version (*Canon de 75 modele 34*) that could not be dismantled (and thus could not be Animal-Packed). Licensed and built by Belgian Cockerill, the guns were sited along the German frontier in the Ardennes. These guns equipped the *Chasseurs Ardennes* artillery support group with 2 four-gun batteries. **(5/40 RF 1.4)**

This counter (a Normal Target, BPV 23) also represents the Norwegian *bergkanon/M11*, nine batteries of which were imported from the Ehrhardt firm to equip mountain units. **(RF 1.2 4/40-5/40)**

This can also represent (a Normal Target, BPV 21) the Greek *75 "D"*, the only native-designed gun in the Greek artillery park (the "D" stands for Colonel Danglius, the Greek designer of this Schneider mountain gun). **(10/40-5/41 RF 1.6)**

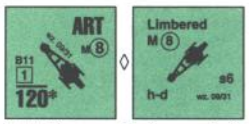


30. *75M 19S:* This was the Schneider light mountain gun (see French Ordnance Note 10) which France exported to Poland **(9/39-10/39 RF 1.5)**, Greece **(10/40-5/41 RF 1.2)**, Yugoslavia **(4/41 RF 1.4)**, and Rumania.

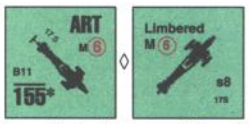


31. *C105 L 13S:* The *Canon de 105 L mle 13S* (French Ordnance Note 14) and its derivatives saw action with several Allied armies. Most versions were not suited for vehicular towing. (Belgium **5/40 RF 1.5**) (Yugoslavia **4/41 RF 1.4**)

This counter also represents the Polish wz.29/34 modification which were distributed to heavy artillery battalions in three-gun batteries (one battery per battalion) and to heavy artillery regiments which had one battalion with 9 guns in 3 batteries. **(9/39-10/39 RF 1.4)**



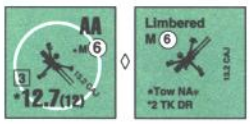
• **32.** *120mm wz.09/31:* This was the French 10-S Schneider 120mm Model 78/9/31 artillery piece modified with a Russian gun tube (see Russian Ordnance Note 19). Poland had 43 of these in service with the 6th Motorized Heavy Battalion, and nine each in the 46th and 47th Heavy Artillery Battalions. **(RF1.6)**



• **33.** *155mm Model 17S:* The *Canon de 155mm C mle 17S* (French Ordnance Note 16) and its derivatives were used by several Allied armies. Poland had 340 of these howitzers (the *155mm wz.17*) in service, and used them in three-gun batteries in heavy artillery battalions regiments. **(9/39-10/39)**

In Belgium, it was called the *Ob 155* and was towed with CK P14 halftracks, first in the *1st Régiment d'Artillerie Lourde* and later in the *Régiment d'Artillerie d'Armée*—in the I/1 RAA in three batteries of four guns. **(5/40)**

It was the standard heavy howitzer of the Greek army **(10/40-5/41)**, and was the primary heavy artillery piece used by Yugoslavia. **(4/41)**

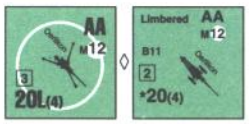


34. *Mitrailleuse de 13.2 CAJ mle 30:* The Hotchkiss mle 13.2 machine gun was the standard AA weapon of several armies before being phased out in favor of the various Bofors models (see French Ordnance Note 18).

This piece represents Yugoslavia's *Zbrajovka (ZB)* machine gun, of which there were 350, used mostly by 12-gun batteries for close AA defense.

† Make two To Kill DR when using the 12.7 column of the AP To Kill Table; only one DR (firer's choice) is used. Maximum range for To Hit purposes is 16 hexes. **ERRATA:** This note also applies to French Ordnance Note 18.

(Belgium **5/40 RF 1.5**) (Greece **10/40-5/41 RF 1.5**) (Yugoslavia **4/41 RF 1.3**)

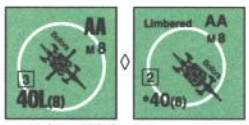


35. *20mm Oerlikon:* Until the end of the 1930s, the Dutch Army was equipped with the Vickers and Spandau AAMG to combat aircraft. With growing international tension the interest in AA defense increased and an order for 175 20mm Oerlikon AA guns (see Chinese Ordnance Note 15 and French Ordnance Note 19) was placed with the manufacturing firm in Switzerland, but only 170 guns were delivered by May 1940. **(5/40 RF 1.3)**

The Dutch KNIL in Java had 6 of these in Java. **(2/42-3/42 RF 1.5)**

Greece had 124 of these guns in service found in six-gun batteries or cavalry AA batteries of four. **(10/40-5/41 RF 1.4)**

This piece also represents the *Breda ZB M34*, of which 120 were in service with Yugoslavia. **(4/41 RF 1.4)**



36. *40mm Bofors AA:* Poland licensed a version (the *wz.36*) of the Swedish Bofors 40mm autocannon (see British Ordnance Note 21) and exported numerous models to France, Spain, the Netherlands, and others, after lightening and simplifying the gun's carriage. Over 300 were on hand at the onset of the war, mostly distributed in four-gun batteries and towed by the C2P artillery tractor. The Bofors was often used in an anti-tank role. **(9/39-10/39 RF 1.1)**

In Dutch service it was called the 4TLD. In Belgium, FN obtained a license to produce it, where it was known as the c40 Bofors AA. On 10 May 1940, 5 batteries (3 sections of 2 guns each) were serving with the 1st Regiment DCTA and four batteries with the 2nd. Additionally, eight independent batteries were serving with the Territorial Guard AA. **(5/40 RF 1.3** for both)

The Norwegian army had some 300 40mm Bofors on hand, which it called the 40mm *maskinkanon/m36*. They were used to defend important targets such as Narvik harbor and the Rjukan power plant. At the latter, at least one (mounted on a truck) was used in a ground role. **(4/40 RF 1.2)**

ALLIED MINOR MULTI-APPLICABLE ORDNANCE NOTES

A. This weapon may be Animal-Packed (G10).

B. Belgium

C. When using Limbered Fire, the Barrel Length modification (C4.1) on the counter's LF side is used for To Hit purposes but the AP Basic To Kill number is still determined using the Caliber Size and Length printed on the unlimbered side.

D. This weapon may not be dismantled.

Da. Denmark

Gr. Greece

Ne. Netherlands

N. Norway

P. Poland

T. As signified by "Tow NA" on the counter, this Gun cannot be towed. However, it may be carried on a vehicle in the same manner as a 76-107mm MTR (C10). It is (un)loaded using normal (un)hooking procedures [EXC: the vehicle need not have a T#; ignore its T# if one is present], and reduces that PP capacity by 8PP while loaded. Section C10 applies otherwise unchanged.

Y. Yugoslavia

ALLIED MINOR SUPPORT WEAPON ALLOTMENT AND ELR CHART[1]

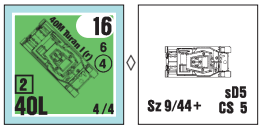
Nationality	LG[2]	ELR[3]	LMG[4]	MMG	HMG	.50 HMG	LT. MTR	ATR	DC[5]	FT[5]
Poland	6	3	—	11	16	22	12[6]	20[7]	3	6
Norway	7	3	8	11	16	—	—	—	3	—
Denmark	8	2	4	10	15	—	—	—	—	—
Netherlands	5.5	3	9	11	16	—	—	18[8]	3	—
Belgium	6	3	—	10	15	—	6[9]	—	3	—
Yugoslavia	7.5	2	8	10	16	22	—	—	3	—
Greece	7	3/2[10]	10	14	18	24	—	—	3	—
• *# In Game*			*12*	*6*	*4*	*2*	*5[6]/5[9]*	*5[7]/5[8]*	*5*	*2*

1: SW allotted according to Equivalent number of squads.
2: The listed Leadership Generation (LG) factors are optional. The LG factor on the National Capabilities Chart is 7.
3: +1 Elite; -1 2nd Line; -2 Mobilizing Unit.
4: +1 2nd Line; +3 Mobilizing Unit.
5: Allotted according to Equivalent Assault Engineer (1.22) squads.
6: *Granatik wz.36* 46mm version (Ordnance Note 1).
7: *"Ur." wz.35* (Ordnance Note 2) standard version.
8: *Solothurn S/18-1100* 20mm version (Ordnance Note 15).
9: *DBT* 50mm version (Ordnance Note 6).
10: Greek ELR 4/41-5/41.

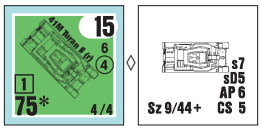
FESTUNG BUDAPEST HUNGARIAN VEHICLE AND ORDNANCE NOTES

The following Vehicle and Ordnance Notes have been extracted from ***Armies of Oblivion*** *to accompany the Hungarian counters provided in* ***FB****. They have been edited to include the information pertinent to the play of the scenarios and campaign games included in this HASL.*

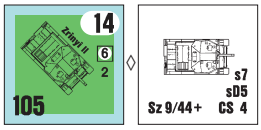
VEHICLES



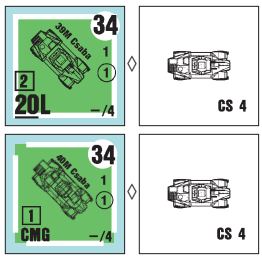
9. 40M Turan I(r): The Czech-designed medium tank Skoda T-22 was the basis for the Hungarian Turan I. A licensing agreement was signed in August 1940 for production to begin in Hungary. Before production began, the tank was modified from the original Czech design in a number of ways. A 260 HP V-8 engine designed by Manfred Weisz and a 3-man turret were installed. The Turan I armament was based on the Hungarian 40mm 41M anti-tank gun. This weapon in turn was derived from the German *PaK 35/36* but used the tubes of the Bofors 40mm and the same ammunition as the 40mm 37M Bofors AA gun which was also made by MAVAG. The Turan I carried 100 rounds of 40mm ammunition and mounted two 8mm 34/40 air-cooled, belt fed tank MG derived from the Czech Brno Z830. Some Turan Is were fitted with Schuerzen late in 1944. The Turan was named after a legendary Asian people said to have been ancestors of the Hungarians.
See also Axis Minor Vehicle Notes E, N, Q



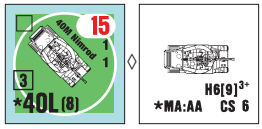
10. 41M Turan II(r): The 2nd Hungarian Army's disaster on the Don Front in January 1943 made it clear that the Hungarian tanks needed to be up-gunned to compete with the Russian armor. The 41M was built on the Turan I chassis and armed with the 75mm 41M L/25. It was originally designated 41M Turan II heavy tank, but that was changed in 1944 to 41M Turan "75 short" heavy tank. The 1st Armored Division eventually received its share of Turan IIs later in the war. Some Turan IIs were fitted with Schuerzen late in 1944.
See also Axis Minor Vehicle Notes E, N, Q



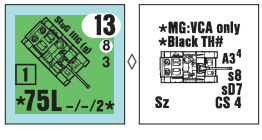
13. 43M Zrinyi II: The decision to produce the Zrinyi (pronounced "Zreen-yee") assault gun was based on the achievements of the German Sturmgeschuetz during 1941-42. A mobile assault gun mounted on the Turan chassis and armed with a 75mm anti-tank gun, the Zrinyi I prototype was finished in December 1942. However, due to a severe shortage of these guns, production models were fitted with the 105mm 40/43M howitzer, a modified version of the MAVAG 105mm 40M towed field howitzer. Production began under the name 43M Zrinyi II assault howitzer, a name later changed to 43M Zrinyi "105" assault howitzer. The name "Zrinyi" comes from Nikolaus Graf Zrinyi, a Hungarian hero who fought the Turks and was killed in the battle of Szigetvar in 1566. Only 60 were built before production was halted when American bombers destroyed the main assembly building on July 27, 1944. The first five Zrinyis were assigned in August 1943 to the 1st Assault Artillery Battalion and saw combat in July 1944 at Ottynia in eastern Galicia. In the latter part of 1944 most Zrinyi IIs were fitted with Schuerzen.
See also Axis Minor Vehicle Note Q



14. 39M Csaba & 40M Csaba: This was an excellent armored car based on the British Alvis AC2 armored car designed by Nicholas Straussler, a Hungarian who had planned a number of armored cars for Britain while living there. He came to an agreement about producing some of his designs for his home country and with the assistance of the Hungarian Institute for Military Technology, the 39M Csaba armored scout car came into being as an enhanced version of his British designs. The prototype of the 39M Csaba was completed in June 1939, but the first run of 61 units was not delivered until August 1940. A second run of 70 vehicles was ordered in June 1941 and completed shortly thereafter. The 39M mounted a 20mm gun and an 8mm MG in the turret. Production of the 40M command car began in 1940, with a total of 70 being completed by 1944. These differed from the 39M by mounting a large grid type aerial and a smaller turret with only one MG but with two radios. The two vehicles formed reconnaissance companies (ten 39Ms and one 40M command vehicle). Almost 90% of these Csabas on hand for Barbarossa had already been lost by the end of July 1941. Csaba (pronounced "Chah-bah") was the name of Attila the Hun's youngest son.



16. 40M Nimrod: Originally designed by Landsverk around the Swedish LVKV 40, the Nimrod mounted the 40mm Bofors L/62. The Hungarians received the first vehicle in December of 1937 and started production of their own version with a widened turret to mount the MAVAG version of the 40mm Bofors in February of 1939. The vehicle was designated armored machine-gun vehicle 40M Nimrod and 135 were produced between 1941 and 1944 when production ceased as a result of the German occupation of Budapest. The Nimrod was very similar to the Toldi (which was derived from the Swedish L60 from which descended the LVKV 40). The open-topped superstructure was roomy and the unique gun mantlet allowed for maximum elevation and traverse of the Bofors gun. The 1st & 2nd Armored Divisions had 38 Nimrods each in September of 1944. The 1st Cavalry Division had four Nimrods in September of 1944 when it was renamed the 1st Hussar Division "for its gallant actions in Poland."
† H6[9] is available beginning 1/43 and has a Basic To Hit number of 11; this is the Stielgr 41 (German Multi-Applicable Ordnance Note B). Each hex of range decreases this number by one. Its maximum range is 9 hexes. All Firer/Target based To Hit DRM apply normally. It may only be fired at a vehicle, or at those target types allowed to HEAT (C8.31). It may not be used as either Bounding *First* or Motion Fire and the MA's ROF is lowered to zero if it successfully fires Stielgr 41.
† **ERRATA:** The Axis Minor 40mm HEAT Basic TK Number is "26."
See also Axis Minor Vehicle Note P



40. StuG IIIG(g): Germany delivered 50 StuG IIIG (German Vehicle Note 34) to Hungary (which called them *Sturmkanone 40 Rohamagyu)* between May and August 1944 to equip its assault artillery battalions.
† The AAMG may not fire outside of the VCA—as signified by "MG:VCA only" being printed on the counter.
See also Axis Minor Vehicle Notes E, Q

©2011 Multi-Man Publishing, Inc.

MULTI-APPLICABLE VEHICLE NOTES

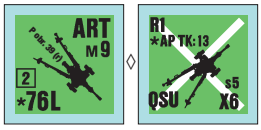
E. "(g)" or "(r)" in the piece name stands for "German" or "Russian", respectively, for ESB (D2.5) purposes, and indicates that a MG Scrounged from this vehicle (or its wreck) takes counter form as an Axis Minor-colored LMG(g) or LMG(r) respectively; "(g)" also indicates that the MA uses black TH numbers (unless captured), as signified by "Black TH#" on the counter.

N. This Czech-designed chassis suffers a +1 ESB DRM (like Russian AFV) and the MA uses red To Hit numbers (like Russian AFV); therefore, this vehicle has been given the "(r)" identifier (per Note E).

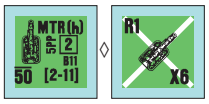
P. MA and CMG (if so equipped) have AA capability—signified by "MA:AA" being printed on the counter.

Q. This AFV can have Schuerzen (D11.2).

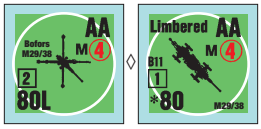
ORDNANCE



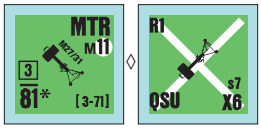
12. 76.2mm P obr. 39(r): Approximately 350 of these captured 76.2mm artillery pieces (Russian Ordnance Note 15) were taken into Romanian service. They were converted to accept 75mm shells already in production, but their performance in ASL terms was unchanged. A Hungarian counter has been provided for use in **FB**.
See also Axis Minor Ordnance Note K



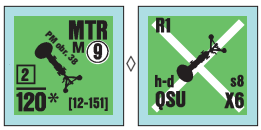
23. 5cm leGrW 39(h): The Hungarian FEG Factory produced under license a later model (M39) of the German leGrW 36 (Note 44), but they were inferior to the German originals and had a lower rate of fire. At the beginning of the war, each Hungarian infantry company was equipped with one 50mm light mortar. Later all light mortars were removed from the infantry companies and consolidated into a mortar platoon of six light mortars as a battalion asset. This counter is not included in **FB**; players should use the counter from **Armies of Oblivion**. If that is unavailable, players should substitute the German SW mortar counter with the appropriate changes.
See also Axis Minor Ordnance Note A



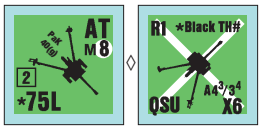
27. Bofors 80mm M29/38 AA: Bofors built for Hungary a special 80mm version of its Model 29 75mm gun (Chinese Ordnance Note 17). Also called the M29, this was a reliable gun with many features that were later incorporated into the German FlaK 88mm series, most notably its cruciform platform. Hungary also built some 230 guns under license. These anti-aircraft guns were the backbone of Hungary's air defense but were considered too slow, with too high a silhouette for use as an anti-tank gun.
† **ERRATA:** The Axis Minor 80L AP Basic To Kill Number is "17."
See also Axis Minor Ordnance Note G



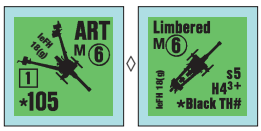
47. Brandt M27/31: The Brandt 81mm mortar (French Ordnance Note 3) was the standard medium mortar throughout the war. It was copied by many nations and the rounds were often interchangeable. This piece also represents the Russian 82mm BM obr. 37 (Russian Ordnance Note 2), many of which were captured early in the eastern campaign. Hungary purchased many of these mortars from captured German stocks and in 1942 began producing its own model until 1944 when allied bombing destroyed the manufacturing plant.
See also Axis Minor Ordnance Note A



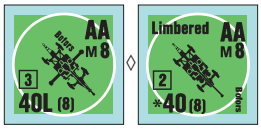
48. PM obr. 38: The Russian 120mm PM obr. 38 (Russian Ordnance Note 4) was thought by many to be the best heavy mortar produced during World War II. It was captured in large quantities during 1941-42 and outfitted both Hungarian and Romanian units. Hungarian production of this version began in the fall of 1943. Small numbers were produced before allied bombers destroyed production facilities in July 1944. This locally-produced mortar joined an armory of captured Dutch, Czechoslovakian, Russian, and Yugoslavian models, all of which Hungary produced ammunition for.



55. 7.5cm PaK 40(g): Germany was reluctant to part with these high-quality AT guns (German Ordnance Note 10) and gave its allies only a few. Those that Hungary received in 1942 went to the 2nd Army at the Don River.
See also Axis Minor Ordnance Note E



62. 10.5 cm leFH 18(g): This counter represents the 10.5cm leFH 18 (German Ordnance Note 20) and the leFH 18/40 version of this German artillery piece. Hungary purchased this artillery howitzer from Germany in 1937.
See also Axis Minor Ordnance Note E



74. Bofors 40mm AA: Just as Britain (British Ordnance Note 21) and most of the Allied Minor nations (Allied Minor Ordnance Note 36) had a version of this reliable AA gun, so did most of the Axis Minor nations. Beginning in 1935 the MAVAG plant in Hungary produced 650 of these guns for export, but with the onset of war most went to Hungarian troops. In 1942 Hungary equipped this piece with an armored shield for dual use as an AT/AA gun. Designated the 36/40mm AA, this gun proved ineffective against medium and heavy Russian tanks; this counter can also represent this dual-use piece by assigning it a Gunshield.
See also Axis Minor Ordnance Note G

MULTI-APPLICABLE ORDNANCE NOTES

A. This weapon may be Animal-Packed (G10.).

E. The use of "(g)" in the piece name (standing for German) indicates that the Gun uses black TH numbers.

G. When using Limbered Fire, the Barrel Length modification (C4.1) on the counter's LF side is used for To Hit purposes but the AP Basic To Kill number is still determined using the Caliber Size and Length printed on the unlimbered side.

K. The use of "(r)" in the piece name (standing for Russian) indicates that the Gun uses Russian AP To Kill values, i.e., "13" for the 76L.

©2011 Multi-Man Publishing, Inc.

HUNGARIAN VEHICLE LISTING

#	Name & *Type*	®	WGT	BPV	Size	AF	TA	OT	CS	MP	GP	GT	MA	ROF	B#	IF	BMG	CMG	AAMG	sD	s#	Am	Notes
1	40M Turan I(r) *MT*		18	44	0	6/4	-SR		5	16		ST	T40L	2			4	4		5			9, E, N, Q
1	41M Turan II(r) *MT*		19	47	0	6/4	-SR		5	15		ST	T75*	1			4	4		5	7	AP6	10, E, N, Q
6	43M Zrinyi II *AG*		21.5	48	+1	6/2	+F		4	14		NT	B105							5	7		13, Q
2	39M Csaba *AC*		6	27	0	1	-SR		4	34		RST	T20L	2				4					14
1	40M Csaba *AC*		6	20	0	1	-SR		4	34		1MT	CMG	1				4					14
3	40M Nimrod *TD/AA*		10.5	38	0	1		•	6	**15**	L	T	T40L	3 (8)					†[1]			H6[9][3+]	16, P†[1]
2	StuG IIIG(g) *AG*		23.5	61	+1	8/3			4	13		NT	B75L	1					2	7	8		40, E, Q

HUNGARIAN ORDNANCE LISTING

#	Name	Type	CSize	ROF(IFE)	B#	Range	M#	TSize	Special	BPV	Notes
2	76.2mm P obr. 39(r)	ART	76L†	2		332	9	0	NT, QSU, s5	32	12, K†
	5cm leGrW 39(h)	MTR	50	2	11	2-11			5PP	27	23, A
2	Bofors 80mm M29/38	AA	80L†	2		200	**4**	-1	T, LF [80†[1], 1 ROF, B11]	37	27†, G†[1]
7	Brandt M27/31	MTR	81*	3		3-71	11	+1	NT, QSU, s7	30	47, A
2	PM obr. 38	MTR	120*	2		12-151	**9**	+1	NT, QSU, s8, h-d	24	48
3	7.5cm PaK 40(g)	AT	75L	2		192	8	+1	NT, QSU	41	55, E
3	leFH 18(g)	ART	105	1		266	**6**	0	NT, H4[3+], s5	36	62, E
3	Bofors 40mm	AA	40L	3 (8)		247	8	0	T, LF [40†[1], 2 ROF]	40	74, G†[1]

©2011 Multi-Man Publishing, Inc.

J. DELUXE ASL

1. MINIATURES

1. MINIATURES: *Deluxe ASL* easily accommodates the use of 1/285th scale miniature figures. MMC figures can be stacked on top of SW/Guns to show possession and laid prone when broken.

2. CONVERTING ASL RULES TO DELUXE ASL

2.1 STACKING: Almost no *ASL* rules are actually changed in Deluxe *ASL*; most are only reworded to account for the absence of stacking in the latter. The only stacking in Deluxe *ASL* is that necessary to show possession; i.e. a MG counter is stacked on a squad to show that the squad possesses it—otherwise they are merely occupying the same Location. Similarly, a Passenger stacks on a vehicle to show that it is on the vehicle, and a leader stacks on a floor level counter or beneath a Sewer counter to show which Location it occupies within its current hex. Otherwise, it is assumed to be at ground level.

2.11 RANDOM SELECTION: Rather than matching the lightest colored dr to the top unit in a stack (A.9), the lightest dr is now said to affect the leftmost unit of the player in the Location, the darkest dr the rightmost, etc. Be sure to align applicable counters in an obvious left-to-right fashion or specify colors before making a Random Selection DR.

2.12 POSSESSION: Stacking is still necessary to show possession of a Gun/SW (A4.43). Rather than being the bottom counter of a stack, an unpossessed SW/Gun is simply left unattended in the hex—i.e., not part of any stack. A Gun in a stack is possessed by the Infantry unit in that stack regardless of which unit is on top. This allows the player to mark SW which have used their First Fire capability by placing a First Fire counter on them, while stacking the unit which has not yet used its own inherent FP on top of them—a choice which has to be left to memory alone in ASL (A7.33).



2.13 FLAME: A Flame which has been Hampered (B24.721) is placed beneath a PIN counter; otherwise a Flame is merely placed elsewhere in the hex for possible conversion to a Blaze during the AFPh.



2.14 WIRE: Units which have successfully moved beneath a Wire counter (B26.4) should be placed in the same hex but not actually beneath the Wire counter. Units which have yet to move beneath the Wire must remain stacked on top of it. Multiple Wire counters may be used (all representing just one Wire counter) to prevent large stacks on a single wire counter if the counter mix permits.



2.15 ENTRENCHMENTS: Units inside an entrenchment are stacked on the entrenchment counter; units not in the entrenchment are placed elsewhere in the hex (B27.1). To avoid stacking, treat all 2S and 3S foxhole counters as 1S foxholes and allow placement of multiple entrenchment counters in the same hex to accommodate multiple occupying units (counter mix permitting).



2.16 PILLBOX: Units in a pillbox are stacked on top of the pillbox (B30.12); units outside a pillbox are placed elsewhere in the hex. More than one pillbox may set up in the same hex provided each has a different CA.



2.17 CONCEALMENT: One "?" counter may still conceal all units in the same Location. Units may be stacked at start to accommodate concealment and then later separated, each under its own "?" counter.

2.2 PLACEMENT: There is sufficient room in each hex so that the position of a counter in the hex relative to its hexsides can impart information making some information counters unnecessary.



2.21 FIELD OF FIRE: Once a MG/Gun in woods, rubble, or building terrain has fired and thus limited its Field of Fire (A9.21 & C5.11) for the remainder of that phase, it should be placed in the hex so that it actually touches the hexspine that is the base for its CA rather than placing a CA counter. Return all such MG/Guns to the interior of the hex at the end of that phase.

2.22 CA: Guns must still be placed in the hex with their barrels pointing towards a hexspine to define their current CA, but should be placed approximately 1/4" away from the hexspine so as not to be confused with Guns having set Fields of Fire.



2.23 RESIDUAL FP: Fire at a unit using Bypass leaves Residual FP only on that particular hexside. The Residual FP counter is left on, but inside, the actual hexside traversed and affects only units moving along that particular hexside or through the hex obstacle without using Bypass.



2.3 CC: Units do not have to be stacked with enemy units to engage in CC (A11), they merely have to occupy the same Location. However, if actually stacked with enemy units, Hand-to-Hand CC rules apply. This is one of the few rules which varies from that of *ASL* and it applies only to Infantry/Cavalry vs Infantry/Cavalry situations.



2.31 HAND-TO-HAND CC: Hand-to-Hand CC can be declared only by the ATTACKER and only if his involved unit(s) has not been Ambushed (A11.4) this turn, but once declared affects all units of both sides as long as that Melee exists in that Location. When Hand-to-Hand CC is declared in a Location, all Infantry/Cavalry in that Location must be physically stacked together, but attack/defend normally. Any vehicle/PRC in the same Location can attack/defend in the same CC but uses the black Kill Numbers rather than the red ones. Hand-to-Hand CC uses the red Kill Numbers on the CCT. A berserk ATTACKER *must [EXC: if Ambushed]* declare Hand-to-Hand CC vs an Infantry/Cavalry defender. Hand-to-Hand CC cannot be declared by or vs vehicles/pillbox-occupants.

2.4 SINGLE-STORY HOUSES: Any building depiction not containing a hex center dot or stairwell symbol is considered a level one obstacle to LOS regardless of the height of other building depictions in the same hex.

EX: aI1 contains a level 2½ building obstacle, but any LOS through the smaller outbuilding in aI1 (which does not also cross the main building depiction) has to deal only with a level 1 obstacle.



2.5 BOMBARDMENT: In *Deluxe ASL*, Bombardment rules (C1.81) are altered as follows: the potentially affected area includes all the hexes of any four contiguous *Deluxe ASL* mapboards. The firer makes three dr per board and treats any 6 dr as No Effect.

2.6 AFV CARDS: AFV cards aid players in keeping battlefield inventory of the varied weapon systems of each individual AFV in his command. Each card is presented with an enlarged line drawing of the AFV, nationality symbol, and full listing of that particular AFV type's characteristics, including notes and special rules. AFV cards are not a replacement for the counters, but are an accessory for their use. One AFV card allows a player to keep track of the armament, ammunition, Schuerzen, and Armor Leaders of up to six vehicles of that type. Each card is designed to provide status tracks for each variable characteristic of the AFV, but only those applicable to that AFV (e.g., optional AAMG are available on only certain AFV). Besides being a reference for the capabilities of these AFV, use of the cards allows players to dispense with placement of the pertinent status counters on the board where they add to piece density. All of the common AFV of the German, Russian, American, and British OB were previously available on AFV cards. Plans are underway for making them available again in their previous form or as downloadable PDF files from our website at www.multimanpublishing.com.

© 2000 Multi-Man Publishing, LLC

1ST EDITION ASL RULES AND BEYOND VALOR

DESIGN: Don Greenwood & Bob McNamara

GAME DEVELOPMENT: Don Greenwood

HISTORICAL RESEARCH: Bob McNamara

SPECIAL PRODUCTION ASSISTANT: Charlie Kibler

COVER ART: Rodger MacGowan

MAPBOARD & COUNTER ART: Charles Kibler

2ND EDITION BEYOND VALOR LAYOUT: Brian Youse and MMP

MVP: Nathan Wallace

BEYOND VALOR SCENARIOS: Don Greenwood, Rex Martin, Jon Mishcon, Charles Kibler

PLAYTESTING: Nathan Wallace, David Quigley, Dan Raisch, Bill Sosnicki, Howard Sylvester, Jeff Cebula, Rich Mierzwa, Jim Smith, George Sedivy, Dave Ramirez, John Mischon, Joe Suchar, Jim Stahler, Dennis Lubberly, Jerry Cottrell, Al Parker, James Collier, Don Clouse, Bob Medrow, Dave Thompson, Mark Nixon, Bill & Dave Sisler, Charles Kibler, Harry Southwell, Tom McKerchner, Rex Martin, Tom Murphy, John Logsdon, Rick Wise, Alan Yngue, Greg Poepl, Don Chappel, Eric Walters, Jay Urban, Richard Kindel, Kevin Duke, Dwight Kubach, Andrea Canatore, Eugene Murrell, Jim Burnett, Anthony Basiks, Bob Safin, Ed Walker.

DOOMED BATTALIONS CREDITS

DESIGN & DEVELOPMENT: MMP with special thanks also to Ole Bøe, Patrick Manlig, and Fritz Tichy

HISTORICAL RESEARCH: MMP with special thanks to Pedro Ramis, Phillipe Leonard, Charles Markuss

SCENARIOS: Jeff Harris, Scott Holst, Tim Hundsdorfer, Phillipe Leonard, Pedro Ramis, and MMP

COVER ART: David Pentland

MAP ART: Don Petros

COUNTER ART: George Bradford, Charles Kibler

PLAYTEST GROUP CORDINATORS: Louie Tokarz, Brook White, Jim Stahler, Paul Kaster, Ted Bleck, Alain Chabot, Scott Jackson, Mark Walz, Steve McBee, Bruce Probst, Russ Bunten (special thanks also to Steve Petersen, Kevin Valerien, Ken Dunn, John Appel, Bob Lyman, Matt Noah, Jeff Coyle, Kevin Meyer, and Neil Stanhagen)

PRINTING: Penn Photomounts

YANKS CREDITS

DESIGN: Rex Martin & Charles Kibler

GAME DEVELOPMENT: Don Greenwood

HISTORICAL RESEARCH: Bob McNamara (with special thanks to Tom McKercher and Neal Schlaffer)

COVER ART: George Parrish

GAME ART: Charles Kibler

PLAYTEST GROUP CORDINATORS: John Mishcon, Andrea Canatatore, Bob Medrow, John Logsdon, James Collier, Eugene Murrell, Jim Stahler, Howard Sylvester, Brian Martuzas, Chris Gammon, Gerald Fahrenthold, Michael Craighead, Dan Raisch, Mark Nixon

PARATROOPER CREDITS

TRAINING MANUAL: Based on original submission by Jim Stahler

PARATROOPER SCENARIOS: Don Greenwood

COVER ART: George Parrish

PRODUCTION ASSISTANT: Bob McNamara

PLAYTEST GROUP CORDINATORS: Jon Mishcon, Andrea Canatatore, Bob Medrow, John Logsdon, Jim Collier, Eugene Murrell, David Pope, Howard Sylvester, Chris Gammon, Tom McKercher, Dan Raisch, Mark Nixon, Harry Southwell, Rex Martin

MVP: Simon Ellberger

CHAPTER K DAYS 7 AND 8 CREDITS:

AUTHOR: Tom Huntington

LAYOUT: Brian Youse and MMP

SPECIAL THANKS: Carl Fago, Kevin Valerien, John Appel, and Bob Lyman, and Tom Repetti

ASL RULES 2ND EDITION

RULES DEVELOPMENT: Perry Cocke and MMP (Special Thanks to Ole Bøe, Patrik Manlig, and Fritz Tichy for help with Sewers and Walls and to Tom Huntington for the Index)

ASSISTANT RULES DEVELOPERS: Scott Jackson and Alain Chabot

REWRITE ASSISTANTS: Bruce Probst, Phil Pomerantz, Rusty Witek, Greg Schmittgens, Scott Romanowksi, Tom Repetti, Brian Blad, Kevin Valerian, Tom Huntington, John Slotwinski (Special thanks to Bill Kohler and Jim Stahler)

PROOFERS:

Wayne Melnick with Daniel Zucker, Chris Stone, Mark Robbins, Aaron Cleavin, Anthony Flanagan, Rob Purdon, John Richards, Dave Schipani, Joe Jackson, Glenn Schools

Ken Katz with Eric Heyney, Lance Roberts, Jeff Paul, Randy Townley, Mark Bell, Zeke Crater, Steve Dennis, Mark Bergin, Sam Belcher, Mike Licari

Scott Jackson with Klas Malmstrom, Lyle Sisson III, John Meyers, Dion Loach, Tom Repetti, Dirk Beijaard, Charlie Hanson

Brian Blad with Blake Ball, Jonathan Cole, Michael Augustine, Peter Lageri, Steve Foren, Keith Jones, Steve Petras, Kent Henson

Kevin Valerien with Greg Schmittgens, Glyn Lewis, John Slotwinski, Jim Thomspon, Kevin Meyer, Joe LePard, Paul Simonsen

Robert Delwood with David Rosner, David Olie, Dave Otway, Kevin Kenneally, J.R. Tracy, Sam Tyson, Scott Romanowski, Pete Palmer, Pete Belford

Alain Chabot with Fish Flowers, Mike Manuel, Aje Skamoto, Matt Shostak, Jeff Sewall, Thomas Rae, Stance Nixon, Ted Bleck

(Special thanks to Jose Luis Serrano Galarraga and Ron Mosher)

LAYOUT: Curt Schilling and MMP (Special thanks to Alain Chabot)

© 2000 Multi-Man Publishing, LLC

K. Squad Leader Training Manual

INTRODUCTION:

The Squad Leader Training Manual may offer little of interest to veteran players of the game system, since it concentrates on repetitive "hands on" examples of the basic fundamentals of play. While a refresher course would probably help even veteran players, the intent is to take players who are relatively new to *ADVANCED SQUAD LEADER* through a course in basic game principles with a somewhat humorous approach that avoids the "legalese" of the *ASL* rules and uses everyday language. As such, the Training Manual is not a replacement for the *ASL* rules and should not be considered to supersede them in any way. Indeed, the Training Manual deals in generalizations rather than specifics and some of its statements do not hold true in all cases. In the case of conflicts, the *ASL* rules always take precedence over statements in the Training Manual. Sometimes the Training Manual refers to "the brass changing the book", which is your cue to realize that this rule has changed since the 1st edition; not all such changes are so noted. The intent of the Training Manual is solely to give new players a very basic understanding of the game before directing them back to the more detailed rules of *ASL*. To that end, specific parenthetical references to the *ASL* rules such as "(A26.2)" are contained herein should the reader wish more detailed information on the subject being discussed.

However, whether you are veteran or novice, the Training Manual will help only if you take the time to punch out a few counters, place them on the maps referred to, and follow along with the dialogue. In the Training Manual you learn by re-enacting numerous examples. Don't just read it—follow along, moving the pieces as you read—and attempt to understand why the pieces are moving as they are. Get out your LOS thread and check the LOS yourself. Only by adhering to this "hands on" approach will you derive any real benefit from the chapter. Readers should treat ■ as a graphic symbol for pause—indicating a greater passage of time for the characters to enable them to reach a new location or for the reader to deal with a presented exercise. Readers should also come to quickly realize that proper grammatical usage has given way to a usage of quote marks to identify only the statements of the trainees as a means of emphasizing and separating them from the remarks of the instructor.

The second edition Training Manual has been expanded to cover vehicles, OBA, and more advanced topics. Day One through Day Six of the Training Manual originally appeared in *PARATROOPER*. Day Seven originally was found in *PEGASUS BRIDGE*, and Day Eight first appeared in *ASL JOURNAL #2*. The original purpose of *PARATROOPER* was to provide an inexpensive module for those players contemplating a move from *SQUAD LEADER* to *ASL* who have not yet made up their mind. *PARATROOPER* contains all the counters necessary to play its scenarios using the *ASL* system. No other materials save the *ASL* Rulebook and boards 1-4 (which veteran *SL* players already had) are necessary. The limitations of our scenario depictions to those few boards required far more use of terrain changing SSR than we like, but was judged a necessary sacrifice to stay within the parameters of an inexpensive module which could be played entirely with the components therein. *PARATROOPER* remains a relatively inexpensive method for someone with boards 1-4 and the *ASL* Rulebook to play *ASL*.

It is hoped that purchasers of PARATROOPER will move on to other modules with greater diversity of boards/counters wherein the richness of detail this game system has to offer can be better served. This is the primary reason for the selection of the Normandy airborne landings as the subject of this module. By limiting the unit types of both sides (especially the paratroopers who are not subject to normal unit Replacement rules), we were able to restrict the counter mix to an absolute minimum of duplication from other modules while still providing all that is necessary for a complete game and supplementing existing counters. Players will find that the counters herein will augment those provided in *BEYOND VALOR* and together constitute a more complete counter mix.

To play scenarios from *PARATROOPER* you will first have to read and comprehend most of *ASL* chapters A and B, as well as much of chapters C and D if playing a scenario containing vehicles or ordnance. The only sections of chapters A-D completely unnecessary in playing *PARATROOPER* are: Cavalry (A13), Battlefield Integrity (A16), Flamethrowers & Molotov Cocktails (A22), Sunken Road (B4), Elevated Road (B5), Runway (B7), Sewers & Tunnels (B8), Graveyards (B18), Wire (B26), Minefields (B28), Pillbox (B30), Village Terrain (B31), Railroads (B32), Stream-Hex Terrain (B33), Towers (B34), OBA (C1), Recoilless Rifles (C12), Gyrostabilizers & Schuerzen (D11), Horse Drawn Transport (D12), AFV Radios (D14), Motorcycles & Bicycles (D15), and DD Tanks & Amphibians (D16). However, out of all the rules sections that might come into play, no single *PARATROOPER* scenario requires you to use them all. For instance, only one scenario has any DC (A23) and only three have Marsh (B16) or Water Obstacles (B21). Several scenarios have no vehicles, and so require neither Chapter D nor the many of the subsections throughout the rules that apply only to vehicles.

DAY ONE: MARCHING

FALL IN! Line up with your toes touching that white line. You, get rid of that gum! You, suck in that gut! Chin up, shoulders back, eyes straight ahead. Try to look a little like soldiers. Alright—at ease.

Gentlemen, welcome to Camp Avalon Hill. How are you this fine June morning? Fine, I trust. I am your Drill Instructor, Sergeant Stahler. You are all volunteers here for the *ASL* Basic Training course. This course will challenge you; it won't be any game of checkers. We will practice the basic fundamentals of combat on a game board until it becomes second nature. When—and if—you finish you will be able to command Infantry in combat. The best of you will be qualified to go on to Advanced Training where you will learn how to use every Infantry weapon, call in artillery, and even coordinate air support. You will become familiar with every fighting vehicle from a jeep to a Tiger tank. You will learn to cross rivers without paying the toll, sneak beneath city streets via sewers, climb mountains, and jump out of airplanes. But that is in the future. For now, you will learn how to vicariously survive on the gameboards of *ASL* in WWII, and in the process you will learn to lead Infantry, to close with and destroy the enemy. You will become the backbone of the army; you will become Squad Leaders.

Today you will learn how to march. Fall in on the big yellow "1" in your 7-4-7 uniforms in five minutes (freely translated, that means punch out the Sgt. Stahler 8-1 and 7-4-7 squad AA coun-

© 2005 Multi-Man Publishing, LLC

ters and put them in hex B8 on board 1—and prepare to follow along).



■ TEN HUT!




Inasmuch as there are twelve of you clowns, you will be collectively referred to as squad AA and represented by that *Multi-Man Counter (MMC)(A1.12)* with the picture of three soldiers. I, on the other hand, being of much more value, am represented by this fine 8-1 marker with my name on it. This is known as a *Single-Man Counter (SMC)(A1.11)*. If you pass this course—God help us—you too can aspire to such lofty status. In the meantime, note the differences and follow the progress of our respective counters on your copy of board 1. And get used to the abbreviations. We use a lot of them in *ASL* and you better pick up on the jargon fast, because I don't like to repeat myself. If at anytime you don't understand a term I use, look it up in the *ASL* index.

At ease. Unlike your soft, civilian life, the world of a Squad Leader is divided into hexagons. Every hexagon has six hexsides, which separate it from its six adjacent hexagons. Every hexagon also has a white dot or square in the center where I am now standing, and an alphanumeric code consisting of a letter and number, as you can see behind me. We are in hex B8 of board 1, simply referred to as 1B8. By citing the board number and code (otherwise known as a grid coordinate), you can locate any position in any situation. Henceforth we will refer to hexagons as hexes.

YOU! Stop checking your eyelids for holes. You will learn to operate with little sleep, especially at work the day after a tough battle. Pay attention. What hex are we in? " 1B8, Drill Sergeant." What are the six hexes adjacent to us? "1A8, 1A9, 1B7, 1B9, 1C8, and 1C9, Drill Sergeant." That's correct, but in the future refrain from including the board number in the coordinate unless we're referring to another board or it's been a long time since we checked our position.

Today you will learn how to march. Units move from hex to adjacent hex, expending *Movement Factors (MF)* as they go. TEN-HUT! ABOUT FACE! Forward MARCH. Hup, two, three, four. We just entered hex B9, expending one MF. Column Left, MARCH. We are now in C10, having expended another MF. Column Left, MARCH. We are marching through D9, expending our third MF. You don't have to march in a straight line; in fact, you can leave a hex in any direction, regardless of how you entered it. Column Right, MARCH. E10, F10. We are now in F10. Although F10 is only a Half Hex along the edge of the board, it is treated as any other hex. Of course, if you leave the board you vanish, never to be seen again. You will be considered eliminated or Missing in Action which is worse, unless specifically ordered to exit the board (A26.2).

Column Left, MARCH. We are now in G10 after expending six MF. Squad, HALT! We just passed through six Open Ground hexes, expending one MF in each. That is as many MF as you can expend in one *Movement Phase (MPh)* even while I'm with you unless you Double Time and/or use Road bonus. Each player has only one MPh per Game Turn. "What is a turn, sir?" Don't call me sir, I'm not a *!#&#! officer. I am a Drill Sergeant in Uncle Sam's Army and damn proud of it. You will address me as such in the future, or not talk at all. Is that understood? "Yes, Drill Sergeant." Just as *SQUAD LEADER* terrain is divided into hexes a Squad Leader's time is divided into Game Turns made up of two Player Turns which are subdivided into phases. One Game Turn is equal to two minutes. At the end of the MPh of your Player Turn, you halt, and any MF that you haven't yet used are lost.

A MMC accompanied by a leader has six MF per MPh. You receive those extra two MF only if you move with a leader as one combined stack throughout the MPh. If the leader is pinned, wounded, eliminated, or otherwise forced to drop out of the stack, those two leader bonus MF are forfeit—although MF already expended cannot be lost. A SMC by himself also has six MF, but a MMC such as you maggots—without a leader—has only four MF (A4.11). Actually, Inexperienced Infantry has only three MF, but they tell me you blockheads are officer material—God help us—so we'll spare you that indignity. In fact, you have the extreme good fortune to be part of our airborne forces and will be represented throughout this training by a 7-4-7 elite squad counter. Try not to disgrace the uniform too much.

See those trees in front of you in hexes G9, H9 and H10? They indicate woods hexes. Naturally, the going is slower through woods. I doubt whether there are any Tarzans among you. The MF cost of a hex represents how long it takes to pass through it. It costs two MF to enter a woods hex, as you will see. Forward, MARCH. We just expended two MF to enter H9. Column Right, MARCH. We spent one MF to enter I10 for a total of three MF expended so far. Column Left, MARCH. We expended two more MF to enter J9; a total of five MF. Column Right, MARCH. We expended our sixth MF to enter K10. Squad HALT! This MPh we expended all six MF but went only four hexes, because two of those hexes were woods hexes. Left FACE. See the building two hexes away in M9? Going through a building is as slow as going through woods; it also costs two MF per hex. Let's start a new turn.

Forward, MARCH. L9 costs one MF, M9 costs two more, and N8 costs one MF for a total of four MF expended so far. Column Left, MARCH! N7 costs one. Column Right, MARCH! O7 also costs one MF, even though we moved along the road. Squad, HALT!

You will note that crossing a road or moving along a road is the same as moving through Open Ground. A road doesn't speed you up much if you are on foot. If you spend your entire turn moving along a road you get an extra MF (B3.4). We will now march directly to U4 along the road. Sing out the coordinate of each hex as we enter it. Forward, MARCH. "P6, Q7, R6, S6, T5, U5, U4." Squad HALT! We just marched seven hexes in one turn, because we stayed on the road the whole turn. How many hexes can a squad move along a road by itself in one turn? "Five, Drill Sergeant. " How many hexes can a leader move along a road by himself? "Seven, Drill Sergeant."

Now that we are in U4, observe the buildings. The one on your right in V4 is wooden because it is brown. The gray buildings in front of you in U3 and to your left in T4 are stone. Both building types affect movement in the same way, but the stone buildings offer better protection when fired upon.



Buildings also have different heights. The V4 building has only a ground level because it consists of only one hex and has no stairwell symbol (B23.2)—which is a white square where the center dot should be. The T4 building has both a ground and a first level because it is a multi-hex building without a stairwell sym-

© 2005 Multi-Man Publishing, LLC

bol (B23.22). However, it has an inherent stairwell in each hex, which you can use to go up or down stairs. Building U3, which has a stairwell symbol, has a ground level, a first level, and a second level (B23.23) in this type of building. You can go up or down stairs only in a hex with a stairwell. You use a level counter to indicate the level you are on by placing it beneath your own counter. The gray side indicates first level, and the yellow side indicates second level. Going up or down stairs costs one MF for each level changed. It still costs two MF to enter a building hex, even if you are staying within the same building. When I refer to a multi-hex building such as T4 or U3, I am naming it by using the coordinate of just one of its component hexes. S5 is part of building T4, but you'll never see it referred to as building S5-T4. It will always be called building S5 or building T4. Even though only one hex is referred to in the name, all contiguous, directly connecting building hexes are part of the same building. Therefore, the terms "building" and "building hex" are quite different. If, to win a scenario, you must control *building hex* U3—you need control only that hex, including all its building levels. However, if you must control *building* U3—you must control hex U3 plus hexes T2, U2, and V2 (and all their building levels) as well. Follow me through building T4.

We enter T4 at the ground level at a cost of two MF. Then we use the inherent staircase to go up to the first level, costing one more MF. Here's that gray Level 1 counter. Moving to S5 costs two more MF (and our recently acquired Level 1 counter tags along beneath us so we don't have to bother with finding a new one), bringing our total expended thus far to five, and the MPh ends when we remove our level 1 counter to go downstairs to the ground level of S5, expending a total of six MF. Of course it would be quicker to go directly from T4 to S5 on the ground level, costing only two MF, but you would miss the beautiful view from the first level.

Now let's head to X5. Sing out the coordinates as you go. Forward MARCH! "T5, U6, V6, W6, X5." That took six MF, four for Open Ground, and two to enter X5. The next time we move, we'll use the stairwell to go upstairs. Expend one MF to reach the first level, one more to reach the second level of X5, two MF to move to W5, and two more MF to go to W4 where we again end our MPh. Now for your first exercise. You will proceed on your own from here to 1B2 in as few MF and MPh as possible. Since I have six MF per MPh, I will be waiting for you there. And don't forget to use the correct level counter.

■ FALL IN! Those of you who did it in 27 MF and six MPh did well. You remembered to use the stairwell in X3 and the road bonus to move five hexes per MPh for three turns. Fall out for chow; fall in on the big yellow "2" on board 2 in one hour. DISMISSED.



■ TEN HUT!

Now you're going to get some real exercise. We'll be traversing walls, hedges, and hills. Forward MARCH! B7, one MF; B6, two MF. Column Right, MARCH. C6, one MF; D5, one MF. Squad HALT. To review, how many hexes did we just move? "Four, Drill Sergeant." How many MF did we expend to go those four hexes? "Five, Drill Sergeant." What is the most MF we could expend in one MPh without using a road bonus? "Six, Drill Sergeant." See, you don't have to use all of your MF, but those not used are lost. Next turn . . . see that wall in front of you? It lies along a hexside, between hexes D5 and E5. We are going right over it to E5. Help one another, give your buddy a boost. Now over the next wall to E4. We just spent four MF, one for each hex and one for each wall that we went over. Stop griping, Martin. Sure we could have walked around the wall, but there will be many times when you'll have to go over them, and you have to learn how.

Follow me along the road. Forward, MARCH! Sing out the coordinates. "E3, E2, Fl, G2, H1, I2." Column Left, MARCH! "I1." Squad, HALT! Well, whaddayaknow? More walls for us to practice on. Move over the wall to J1 and K2. How many MF did it cost to enter J1? "Two, Drill Sergeant." Wrong! "Seemed like a hundred, Drill Sergeant." Wrong, and this is no time to get tired; you are just beginning. It cost three MF; one for the wall, plus the usual two MF for entering the woods.

Now we will tackle a hill. This hill in front of you has three different levels, each one a shade darker than its next-lower level (B10.1). Each hex is all at one level; the one containing the center dot. Right now we are at ground level. K3 is at level 1, K4 is at level 2, and K5 is at level 3. Moving to a higher level costs double what it would otherwise cost. Move out up the hill. K3 costs two MF, K4 costs two more, and K5 also costs two MF for a total of six MF in this MPh. While you are catching your breath, enjoy the view. You can see a lot from up here, but you can be seen from all those places too. Watch out for the dark brownish-black, serrated hexsides. These are cliffs and run along the hexsides between K5 and the three bordering hexes of L4, L5 and K6. You can't cross cliff hexsides without using climbing techniques (B11.4) that you won't learn in this course. For the time being, you can't climb cliffs at all.

Follow me downhill. Moving downhill is usually like moving on the same elevation; it costs nothing extra. K4, L4, M4. That last hex was tough; it cost four MF: two for the woods doubled to four because we were going uphill. K4 and L4 only cost one MF each because we were going downhill. Let's keep going: M5, two MF; M6, downhill for one MF; M7 downhill to woods for two MF; M8, one MF. That is six MF and ends our MPh. Now let's move directly to J9.

■ How many MF did that last MPh use? "Five, Drill Sergeant." Correct. I brought you down here because I want to show you hex I9. It is unusual because it contains both woods and a building. The cost to enter hexes like this is equal to the cost to enter a woods hex plus the cost to enter a building hex; i.e., four MF (A2.4). Let's do it. Whenever you have multiple terrain types in a hex such as this, the movement cost and TEM of each is cumulative. The main exception is where you find brush and woods in the same hex; the brush is considered just an extension of the wood's undergrowth and therefore the movement cost is the same as entering a woods hex.



Now I have a surprise for you; get the 60mm Mortar in the next room and bring it in here. No . . . put it on top of your counter not beneath it. Possession of equipment is shown by stacking the equipment on top of the unit possessing it. "Do we get to fire it, Drill Sergeant?" No. You get to carry it, or, in military parlance, to portage it (A4.4). All MMC have an *Inherent Portage Capacity (IPC)* of 3. That means you may carry weapons/supplies worth up to three *Portage Points (PP)* at no cost to your MF allotment. If in any MPh you carry PP that exceed your IPC, your MF allotment for that MPh

© 2005 Multi-Man Publishing, LLC

is decreased by one for each PP by which you exceed your IPC. This mortar and its inherent ammo boxes are worth five PP. So if you carry it out of here without me, how many MF will you have in this MPh? "Two, Drill Sergeant." Right. Your normal MF allotment is four and the mortar exceeds your IPC by two—leaving you with only two MF. If I move with you throughout our MPh, even if encumbered by my own portage, you still get the two MF bonus that a leader provides for a total MF allotment of four. However, as a SMC I can do even more for you. I have an IPC of one which, if I'm not using myself, can be added to any single Infantry unit with which I move in a combined stack (A4.42). So, if I accompany and assist you throughout our MPh, how many MF will you have? "Five, Drill Sergeant. " Right. Your normal MF allotment of four, plus my leader bonus of two MF minus one MF for the one PP that is in excess of our combined IPC of four. However, I'm not feeling particularly helpful at the moment, so portage that mortar up the hill to I8 by yourself. I'm staying here.

"We can't carry it that far, Drill Sergeant." Why not? "Entry of a woods hex in a higher elevation costs four MF and we only have two MF while carrying . . . er, I mean portaging, five PP. You'll have to help us. " True, you can't portage it normally, but I wasn't planning on your doing it normally or helping you. An Infantry unit with at least one MF left after deducting all excess PP costs may declare a Minimum Move (A4.134), which allows it to move one hex even though it doesn't have the necessary MF to enter the hex normally. Of course, it's a bit strenuous—you will be both CX (A4.51) and pinned (A7.8) when you get there—but that won't prevent you from using another Minimum Move to get back down here in the next MPh. There is no need to rest until you lose the CX counter. Bring it back with you . . . NOW.

■ Welcome back. Wasn't that fun! Take a break.

■ Okay, leave the mortar in the next room for the next class. "What is this CX counter anyway, Drill Sergeant?" Don't worry, I intend to show you soon. Its effects aren't permanent. You have already lost yours during the Game Turn you were on break. But, now I want you to go to hex T6 on your own in as few turns as possible. Remember that you have only four MF by yourselves. I'll be waiting for you there.

■ FALL IN! You should have made it in exactly four MPh, possibly ending turns at K8 or K9, N8 and Q7. You essentially lost a MF in K8 or K9 because you had only one MF remaining before the end of your MPh, and since the next hex in your path (L7 or L8) cost two MF you had to forfeit your fourth MF and start fresh in the next MPh. This lost MF cannot be accumulated for use in a later turn.

Look down at the base of the cliff in U7. The ground down there is littered with shellholes. Shellholes slow down most vehicles, but Infantry on foot has a choice (B2.4). We can either walk around the shellholes for one MF and treat them as Open Ground, or we can use the shellholes as cover and expend two MF. Follow me to T7, calling out the coordinates. "S7, R6, R7, S8, T7." Squad, HALT! That took five MF. Now let's move to U7 expending two MF, and over the wall to U8, for three more MF ending our MPh. Now, over the wall to V8 for three MF, and over the other wall and into the shellholes in V7 for three more MF. All right, you're wearing out my shellholes and my patience. March along the road to U2. "U7—one MF, U6—one MF, V5, V4, V3, U3, U2." Since we avoided the shellholes by calling out a MF expenditure of only one as we reached them, the hex was treated as Open Ground (B2.4), and we even got the road bonus. Had we spent two MF to enter even one of the shellhole road hexes, the road bonus would not have applied.

Now before you is a hedge. Like a wall, it runs along one or more hexsides; this one between T1, U2, U1, and V1. You can distinguish it from a wall by its color.

The cost is the same as a wall. We are going to move to V1 the hard way, via U1. Forward, MARCH! U1 costs three MF, one for the hedge and two for going uphill (B9.4); V1 costs two more MF, one for the hedge and one for the hex. Now follow me to S2. U2, one MF; T1, three MF; S2, one MF. Now go to BB5 on your own in as few MPh as possible. I will wait for you there.

■ It should have taken you three MPh: to X1 along the road, then Y2, Z2 uphill to AA3, and BB3, BB4, then uphill again to BB5. Take a short break and fall in on the big yellow 4 on board 4 in five minutes. DISMISSED.



■ Fall In! Board 4 consists of relatively open, flat countryside. Forward, MARCH! C8, D7, E7, F6. Column Right, MARCH. G7, H7. Squad, HALT! You see grain hexes on three sides of us in hexes G8, I7 and I8.

"May I ask a question, Drill Sergeant?"

Certainly. The only dumb question is the one that isn't asked.

"What kind of crops grow in a grain hex?"

What a dumb question! It can be anything; corn, wheat, barley, Cheerios. They're all treated the same. Think of it as generic grain fields. Does anyone know the MF cost of a grain hex? One is the cost when the grain is out of season, usually from October to March (B15.6). In April and May the plowed fields slow you down, and from June to September the crops themselves impede movement. Can anyone guess what the movement cost is?

"Two MF, Drill Sergeant?"

No, too high.

"$1^1/_2$ MF, Drill Sergeant."

Exactly—except from October through March, when neither the grain nor the plowed fields exist (B15.6). However, since it's June, you must have the full amount of MF to enter a grain hex. If you only have one MF, you have to wait until next turn (or your Advance Phase . . . but we'll get to that much later). Let's march through the grain field. Don't worry about the local farmers; this is government land and it's grown just to be trampled. Your tax dollars at work.

I7, $1^1/_2$ MF; J6, $1^1/_2$ MF; K6, $1^1/_2$ MF; K5, $1^1/_2$ MF. Squad, HALT! These six MF end our MPh. Now I want you to head to FF5 by yourselves, but not by the quickest route this time. Enter only hexes with a coordinate of 5; for example, L5, M5, N5 is your first MPh. Get moving.

■ It should have taken you eight MPh with a lot of wasted MF along the way. Those who took more or less, try it again. The rest of you, take a short break and fall in on the big '3' on board 3. DISMISSED.

© 2005 Multi-Man Publishing, LLC



3

■ Fall IN! Board 3 has only terrain that we have already seen, but before moving on to board 24 where you will see new terrain types, we are going to review what you've learned so far. What hex are we in now? "3B8, Drill Sergeant." How many MF does it take to get to E3, which is the peak of hill 547? "Ten MF, Drill Sergeant." Good. Taking the shortest route in MPh as well as MF, I want you to go to E3, then to I7, and then proceed to the second level of N1 . Then go to level 1 of R6, before proceeding to W6, and DD2 at the top of hill 498 where I will meet you. Move out.

■ You should have expended the following MF, and taken the following number of MPh:

B8 to E3: 10 MF, 3 MPh

E3 to I7: 8 MF, 2 MPh

I7 to N1 level 2: 12 MF, 3 MPh

N1 to R6, level 1: 17 MF, 4 MPh (using the road bonus between N4 & Q8)

R6 to W6: 8 MF, 2 MPh

W6 to DD2: 11 MF, 3 MPh

Anyone who got all of those correct has done very well. There may be hope for you yet. Take five and fall in on the big 24 on board 24. DISMISSED .

24

■ TEN HUT!

At ease. Board 24 has a lot of terrain you haven't seen before, at least not in this course. I suspect that most of you have seen brush gullies, and orchards, but rarely from a Squad Leader's perspective. Ahead of you in C8 is a valley. We are standing at ground level, or level 0. The bulk of the valley is one level below us, or at level -1. . The gully hexes in the valley are at level -2. Behind you, in hexes B9, C10 and D9 is a gully. It is a relatively narrow slit in the ground which is referred to in *ASL* as a Depression. It is slow going, but usually allows you to move about out of sight of the enemy. The gully is one level below the surrounding terrain. What is the elevation of the gully behind you? "-1, Drill Sergeant." Very good. Now let's do some marching INTO the gully.

TEN-HUT! About FACE. Forward, MARCH! Entering INTO C10 costs us two MF. Column Left, MARCH! Staying IN the gully, D9 also costs two MF. Column Left, MARCH! We are descending into the valley IN the gully INTO hex D8 for another two MF. Squad, HALT! That ends our MPh. The cliff to our right prevents us from exiting the gully to E9. Follow me IN the gully. E8 costs two MF. Here again, cliffs block us from E9. There is also a cliff IN our gully hex which prevents us from moving directly to D7 unless we climb. Gully cliffs look somewhat different from hill cliff hexsides, but the effects are the same. Continue IN the gully to E7. There are more cliffs to our left. We can exit E7 along the gully in either direction, but what is our only choice if we want to leave the gully? "E6, Drill Sergeant. " What do you think you are—a mountain goat? Guess again. "F7, Drill Sergeant." Nice guess. Ahead of us in F6 is a stone bridge over the gully. We are continuing IN the gully to F6 for two more MF which will end our current MPh. We can leave this gully hex by any adjacent hex, but we cannot move directly to the bridge without climbing. We must first leave the gully and enter the bridge along the road up there.

Follow me IN the gully. G6, two MF, H5, two MF. Squad, HALT! From here we can follow the gully either to the right to I6, or to the left to H4. I6 is a combination gully-woods hex. It costs two MF for the gully plus two more for the woods, for a total of four MF. H4 also costs four MF since brush costs two MF. To leave a gully and enter a non-gully we have to enter higher ground, which is just like going to a higher level hill hex as far as MF are concerned. How much does it cost to enter I5 from IN H5? "Two MF, Drill Sergeant." Why? "It normally costs one MF since it is Open Ground, but it is doubled since we are going uphill. " Outstanding. What is the cost to enter I6 from H5? "Four MF, Drill Sergeant."



IN most Depression hexes such as this, you can move/advance into what is called Crest status (B20.9) by expending two MF (or using your Advance capability). Crest status leaves you clinging to the edge of the Depression in a Depression hex at an elevation one level higher than when IN the Depression itself, and is indicated by placement above a Crest counter. However, you are always considered on one side or the other of the Depression—not both—as indicated by placement of the Crest counter so that the solid portion of the hexside depiction on the counter corresponds with the three hexsides you can directly traverse. A Crest counter must be placed so that the middle of its three hexsides does not align with a Depression hexside. Therefore, here in H5, Crest counters can be placed only on the H5-H5, H5-H6, and H5-G5 hexsides and have no effect whatever on the other hexsides. Back in G6, Crest counters can affect either the G6-G7 & G6-H6 hexsides, or the G6-G5 & G6-F5 hexsides. You can leave Crest status in the Depression across any of these actual Crest hexsides by expending an extra MF (or advancing normally). The only way to traverse one of the other hexsides from Crest status in the same or a different hex is to first return to the bottom of the Depression at a cost of two MF (or your Advance Phase capability). You can also enter Crest status in a Depression hex while entering the hex from a non-Depression hex by expending one less MF than the normal cost to enter that hex (or advancing into it), but the Crest counter must be placed so that the middle of the three hexsides it could conceivably cover coincide with the hexside actually crossed. Let's assume we're in Crest status here along the H5-I5 hexside. How many MF would it cost to move to I5? "Two MF, Drill Sergeant; one to leave Crest status along the Crest hexside and one to enter I5. " Good. Since you were already at the same elevation as I5 while in Crest status, there was no need to double the entrance cost of I5 due to entering a higher elevation. How much to enter G6? "Four MF, Drill Sergeant. " Why? "Because we have to pay two MF to exit Crest status INTO the -2 level of H5 before entering G6." H6? "Four MF, Drill Sergeant. " Outstanding. Remember, Crest status can never be gained in a Depression containing a ford or bridge, nor along a hexside of that Depression which is also a cliff or a Depression hexside (i.e. a hexside through which the Depression is drawn). "Drill Sergeant, is entering Crest status the equivalent

© 2005 Multi-Man Publishing, LLC

of changing Locations in the same hex?" Not quite. Crest status is still considered to be the same Location as the bottom of the Depression because, if a firer has a LOS to both, his fire can affect units both in Crest status and IN the Depression. However, for purposes of leadership and SW Possession, Transfer, and Recovery (only), each Crest counter is treated as a separate Location from the Depression and any other Crest counters therein. Now, let's move on to I6.

While we take a short rest IN I6, let's look around, Even though we are IN a gully, we can still see the terrain in ADJACENT hexes. To our right in I7 is a brush hex. It costs the same as woods to move through, but it offers much less protection in terms of stopping a bullet. You can see farther through brush than you can through woods (B12.2).

Follow me as we head through the brush to the road. I7, four MF; H7, one MF; G7, one MF ending our MPh; F6, one MF. Squad, HALT! We are now on the bridge that we were beneath IN the gully. The only way to enter or leave a bridge is across one of the two road *hexsides*. What are the only two hexes that we can enter from F6? "E6 and G7, Drill Sergeant." Outstanding. Let's keep going across the bridge to E6, one MF; D5, one MF; C5, two MF (remember that we just went uphill, doubling the normal entry cost of the hex); C4, one MF; and C3, one MF—for a total of six MF which ends our MPh. Squad, HALT! Look over to D2. The ground dips and comes back up on the hexside between D2 and D3. The MF cost for such Abrupt Elevation terrain (B10.51) is one MF to go down, plus the usual two MF to go uphill, for a total of three MF. Do it. D2, three MF; E2, one MF; F1, two MF. This ends our MPh since we just expended six MF. Let's continue on through the brush—G1, two MF. Squad, HALT!

Look down into H1. It is a crag hex full of rocks, boulders, and other debris (B17). It offers some protection but it slows you down to the tune of two MF per hex. Follow me into the valley again. H1, two MF; H2, two MF. Squad, HALT! From here we can continue IN the gully to I3 for two MF, or leave the gully by moving to G3 (two MF), or Hl (four MF), but not to I2 because of the cliff hexside. We can move to G2, but that involves going uphill two levels: leaving the gully for two MF plus (B10.51) leaving the valley for two more MF. Instead, we are moving directly to H3 for four MF; two to exit the gully while moving to the level -1 valley plus (B10.51) two more MF to enter the level -2 gully in H3. We will now continue IN the gully to H4 which is a brush-gully hex. How much will it cost to enter INTO H4? "Four MF, Drill Sergeant." Why? "Two MF for the brush and two more for the gully." Outstanding. Let's get moving. H4, four MF; H5, two MF. Squad, HALT! We have been here before. This time let's leave the gully and follow the road. H6, two MF; H7, one MF; I8, one MF; J7, one MF; K7, one MF. Squad, HALT!

To our right is an orchard in L7. This costs one MF to enter, the same as Open Ground, but it offers a little more protection. Beyond it we will take a path through the woods and visit a small pond. "What kind of trees are in an orchard, Drill Sergeant?" Fruit salad, soldier. No, they look pretty young. I guess that makes them ours; infant trees. Forward, MARCH! L7, one MF; M8, one MF. Column Right, MARCH. L8, only one MF since it is a path; K9, one MF. Column Left, MARCH! L9, two MF. Squad, HALT! That is a pond on the hexside between us and M9. Unless you own a paddleboat concession on this pond, you cannot cross it. If you want to go to M9 from L9, you have to go the long way via either L8 or M10.

No swimming today! We'll skirt the pond and head toward town. Follow me up out of the valley to M10, four MF; M9, two MF; continuing directly into another MPh—M8, one MF; M7, one MF; N6, one MF; O7, one MF; P6, one MF; Q7, one MF. Squad, HALT! On your left in Q6 is a lumberyard (B23.211). It is equivalent to a single story wooden building. What is its MF cost? "Two MF, Drill Sergeant." Cross the lumberyard to the road on the other side. Q6, two MF; Q5, two MF, Q4, two MF crossing the hedge. Column Right, and head out along the road: R3, S4, T3. Squad, HALT! On your right is a new type of building. From what we know of buildings, what can you tell me about it?

"It is stone because it is gray, has a stairwell in each hex, and has three levels in each hex." Correct, but it is also a split level building (B23.72). Level 1 in U4 connects to the ground level of V3, and Level 2 in U4 connects with Level 1 in V3. The ground level of U4 doesn't connect with any part of V3 and you cannot move from Level 2 of V3 directly to U4. Let's enter the building. U4, ground level, costs two MF; up to the first level of U4, one MF; over to the ground Level of V3, two MF; leave the building and use the path to enter W4, one MF. Follow the path: W5, W6, V6, W7, W8, X8 for a total of six MF. That would have cost 12 MF without the path. A path aids movement through brush just as it does through woods. Follow me through the orchard in X9, one MF; to Y10, one MF.

That concludes our training on board 24 for today. You should now be able to handle any terrain you encounter in *PARATROOPER,* but to be sure we'll practice with a few exercises. How many MF does a squad have in one MPh? "Four, Drill Sergeant." Move along the diagonal Hex Grain from Y10 to G1. Keep track of the number of MPh that it takes and the total MF cost. Take off.

■ It should have taken you exactly 32 MF and nine MPh. Now take the same route back to Y10.

■ It should have taken you eight turns and 29 MF. Movement costs between hexes are not always reciprocal. Now move from Y10 to the road intersection at Y2, staying on hex row Y all the way.

■ This was an easy exercise. Who got 12 MF and three MPh? All of you? Outstanding. Maybe there's hope for you yet. Move along the diagonal Hex Grain from Y2 to I10.

■ That should have taken eight MPh and cost 27 MF. If it took you 26 MF you probably forgot to descend a level in U4, because you were at Level 0 when you entered it from ground Level of V3 and still had to descend a level to -1 in the valley. You have passed your first test, but it was an easy one. Now, we'll do it again—but like soldiers instead of raw recruits. Report to 1B8.





■ TEN HUT! So far you clowns have barely worked up a sweat. Well, that is about to change. At ease. Has it ever occurred to any of you that if you can move four hexes strolling along by yourselves and six hexes when you pick up the pace due to my encouragement, how much ground you can cover if we actually run? Well, in the military we call that Double Time (A4.5) and you're about to find out all about it first hand. Right FACE. Forward, MARCH! Double TIME. Sing out the total MF expended as we go. C8, one MF;

© 2005 Multi-Man Publishing, LLC

D7, two MF; E7, three MF; Column Right, MARCH! F7, four MF; G8 five MF; H8, six MF; I9, seven MF, Column Left, MARCH! J8, eight MF; Squad, HALT! Ah—an invigorating little jaunt. Now, how many MF do you have in Double Time, Nixon? "Gasp—eight, Drill Sergeant." Correct, but only if accompanied by a leader or you become a SMC yourself. Double Time just increases your normal MF allotment by two, and only if you're not broken, wounded, or CX. Unfortunately, it reduces your IPC by one, but that's no concern to us today. "What is CX, Drill Sergeant?" It is that white counter you've been lugging on your collective backs ever since I declared Double Time. It stands for Counter Exhaustion (A4.51), which, judging from the way you're all wheezing, appears pretty accurate. We'll have to cart that counter with us everywhere we go until we fire in our next *Prep Fire Phase (PFPh),* or break, or begin to move in our next MPh, or end our next MPh—whichever comes first. Basically, this means that we're prevented from Double Timing during any two consecutive turns so—while we can keep moving—we can catch our breath and you track stars won't have a heart attack. Of course, other arduous tasks, such as advancing into difficult terrain (A4.72) or taking a Minimum Move (A4.134), can also cause CX and prevent Double Timing in the next Game Turn. "Can we CX through more difficult terrain such as brush or woods, Drill Sergeant?" Sure, I'll show you before we're done. Now, how many MF can we expend next MPh? "Only six, Drill Sergeant, because we're still CX."

Don't look so pleased about it, trainee. Being CX can give you a real problem in combat. You'll have to add a +1 *Dice Roll Modifier (DRM)* to any attack you make and your opponent will qualify for a -1 DRM against you in Close Combat. I doubt whether you'll be smiling then. In general, you want to avoid being CX for a lot of reasons best explained in your advanced training, but there are times when CX status will be necessary. Okay, a turn has passed while we've been talking. Notice your CX counter is gone. Is there any way we can move more than eight MF during our next MPh—short of hauling you out of here in a truck? "No way, Drill Sergeant." Sure there is—if we stick to the road we'll still earn the road MF bonus. I'll prove it to you. Follow me toward V4. Forward, MARCH! Double TIME.

■ Squad, HALT! Where are we trainee and how many MF did we use? "Gasp, S6, gasp, 9 MF, Drill Sergeant." See? Nothing to it. Okay, take a two-minute break to catch your breath and get rid of this CX counter. What if we were to start marching and had expended MF before I ordered Double Time again? "The Inspector General would have to conduct an investigation into why all of your trainees died in the field." No, wimp! Assume you were no longer CX. "You couldn't do it anyway because Double Time has to be declared at the start of a unit's MPh." That used to be right, but the brass has rewritten the book on this one. Now a unit can declare Double Time anytime during its MPh—but if it waits until after it has expended MF to do so—it gets only a one MF bonus and all the normal CX penalties apply. "Why would anyone ever undergo those CX penalties for just one MF, Drill Sergeant?" I'm glad you asked that. Follow me . . . Route Step—T5, one MF; U6, two MF; V6 three MF; W7, four MF, X6, five MF. RAT-A-TAT-TAT. We're under fire from a *Machine Gun (MG)* in Z6—what should we do? "Declare Double Time Drill Sergeant." Right. That gives us one extra MF, which is all we need to pay the two MF cost of entry into X5 where we'll be under cover instead of out in the open. All of a sudden being CX ain't so bad, eh? Don't worry, that was simulated fire—well over our heads- but in combat you won't have that luxury. Suffice it to say that you should know how and when to Double Time.

There is another way to get where you're going faster without expending so much energy—although it's more dangerous. Up until now when we've entered building/woods hexes we've done so rather carefully—going from room to room or actually moving through the woods. However, if you declare Bypass Movement (A4.3) when you enter such a hex, you can move *around* the building/woods depiction at a cost of one MF rather than two MF for actually moving *through* the obstacle. This MF cost assumes, of course, the other terrain in that hex along the hexsides in question is Open Ground, with no other applicable costs of entry into that hex. You are able to traverse the hex more quickly because you are skirting the obstacle rather than moving through it. "What's the catch, Drill Sergeant?" Ah yes, there's always a catch isn't there? In fact, there are several of them. You can only use Bypass in buildings/woods hexes and not in all of those, depending on the direction you wish to move and the availability of non-obstructed hexsides in those hexes. For instance, there is no way we can enter X4 with Bypass because it is an Interior Building Hex completely enclosed by building hexsides. We can use Bypass to enter W5 along the W5-W6 hexside because this hexside is not blocked by a building depiction. At this point we will be at the intersection (or vertex) of hexes W5, W6, and V5 at a cost of one MF. Let's do it. From here we can continue on into any of those three hexes at normal MF expenditures, or continue Bypass in W5 along the W5-V5 hexside at no additional cost. The latter will leave us at the W5-V4-V5 vertex from where we can next move into any of these three hexes at normal cost. Let's move to the W5-V4-V5 vertex as part of the same Bypass expenditure. . . how many MF have we used so far in this MPh? "One MF, Drill Sergeant." So, as you can see, whenever you use Bypass you are at a vertex, which limits your next move to the three hexes of that vertex rather than having the more numerous options available to a unit considered at a hex center dot. "Can we continue Bypass in W5 along the W5-V4 hexside, Drill Sergeant?" We could if the W5-W4-V4 vertex were not obstructed by the building (which is a real close call on my mapboard), but it wouldn't be wise anyway. Such continued Bypass to a third contiguous hexside will cost an additional MF. We would have been better off just using normal movement to enter W5 at the same two MF cost. "Can we continue to use Bypass to enter V4 or V5, Drill Sergeant?" Sure, provided that the first hexside Bypassed in those hexes is part of our current vertex. Also, remember that you can never use your last MF for Bypass; i.e., you cannot willingly end your MPh using Bypass. Even if you are forced by enemy fire to end your MPh in Bypass, you are considered to return to the hex center after all Defensive First Fire against you is resolved (A4.32-.33). So, unless we are broken or pinned, we can't end our MPh here at this vertex. If I want to end the MPh here without entering another hex, what must I do? "Voluntarily break, Drill Sergeant?" Been skipping ahead in the manuals, haven't you, Sylvester? No, you can only voluntarily break in the Rout Phase (A10.41), but next time I need a self-inflicted wound I'll keep you in mind. The answer is hardly so devious. "Pay two additional MF to enter the hex we are already in, Drill Sergeant?" Correct—but keep in mind that you are moving from a vertex to a hex center. Let's go inside W5. Squad, HALT! How many MF did we use in that MPh? "Three MF, Drill Sergeant, but why would we ever want to use three MF to go one hex that we can normally enter for two MF?" Do I have to run you past another hidden MG? No? Good, because I think some of you soiled your pants the first time. Let's suppose that when we turned that corner to enter the W5-V4-V5 vertex, a previously hidden MG in T4 opened up on us. It fails to hit us, but keeps its Multiple *Rate of Fire (ROF)*. We can't end our MPh while using Bypass so we have to move somewhere. Don't you think it would behoove us to pay the extra two MF to regain the +3 *Terrain Effects Modifier (TEM)* of the stone building here in W5? The un-

© 2005 Multi-Man Publishing, LLC

expected frequently occurs in combat and you've got to learn to deal with it.

And that, boys and girls, is the real danger of Bypass. While using it, you don't get the benefit of the woods/building TEM of the hex you occupy and you are also usually subject to an automatic -2 DRM for Non-Assault Movement in Open Ground (A4.34) if a firer has a *Line of Sight (LOS)* to you. In short, you are extremely vulnerable to enemy fire while in Bypass. Not only is the fire more lethal but Bypass can increase the opportunities for such fire because the firer has a choice of potential LOS checks to any of the vertices occupied in that hex, or to the hex center dot across any hexside you traversed. While it is true that Bypass can be used to advantage to avoid the LOS of a Known enemy, it is extremely dangerous to use in the proximity of a suspected, hidden enemy. An example is in order. Let's go over to the intersection in W2 and start our next turn from there. An enemy unit and a MG is in Z1. We certainly don't want to fight them from out here in the open so we must move. If we enter X2 normally at a cost of two MF, the MG can fire at us— conceivably twice if it maintains its Multiple ROF. However, if we declare Bypass along the X2-W3 hexside, the MG has no LOS to either vertex we'll traverse (X2-W2-W3 and X2-X3-W3) and cannot fire at us. Suppose however, that once we declare this Bypass move, a hidden enemy in T4 shows itself to fire on us? We'd be in sad shape because instead of the +3 TEM of the building we'd be subject to a -2 DRM for non-Assault Movement in Open Ground. The moral is that Bypass is a handy way to increase movement capability and can even be used to avoid enemy LOS upon occasion, but is mighty dangerous if you use it where an enemy can see you. Enough lecture. Where are we? "X2, Drill Sergeant." Wrong. "X2-X3-W3, Drill Sergeant." Right. Having used Bypass we are not in a hex but in a vertex of that hex. "But we are also equidistant from the W3 and X3 center dots, Drill Sergeant." True, but every vertex position occupies a portion of one hex—the first hex referred to in its vertex coordinate (A2.2). We can't end our MPh here—let's go inside in X3 (two MF), and up two flights of stairs (two MF), and—oops, Double TIME into W4 (two MF). Put that CX counter on. Squad, HALT!

Where are we, trainee? "W4, second level, Drill Sergeant." Looks familiar doesn't it? This was the starting point of your first exercise. It took you six turns to reach B2 from here. Now that you know how to Double Time and use Bypass you should better that time considerably. I'll see you there.

■ Still six turns, although the last one used only one MF. The distance and MF expenditure (27) were the same, but your ability to Double Time twice got you here sooner. Bypass didn't help you any because the road bonus and a relatively straight route made it unnecessary to leave the road. Had you not started out already CX from the previous MPh you could have used Double Time in the first MPh, which would have gotten you onto the road for Turn 2 and consequently an extra hex traversed due to road bonus. That would have gotten you to B2 in exactly five MPh. As it was, you had to end each MPh in X3 (ground level), R2, M1, F2, and C3.

Now that you've seen how to increase MF at the expense of vulnerability, let's see how we can do the opposite—decrease our vulnerability by sacrificing movement. Let's go over to the woods in C3. Assume we want to cross the street into the building in E4, but are afraid of being fired on in Open Ground while out in the street. We can declare a Dash (A4.63), provided we have enough MF to normally traverse the terrain and have not yet expended any MF in this turn. We can Dash from a non-Open Ground hex (such as C3) into the street (D3), and then directly into a non-Open Ground hex (E4) on the other side of the street, where we end our MPh. We give up some of our normal movement capability but get across the street to a position with a good TEM. If fired on while out in the street in D3, those firers who can shoot at us must halve their firepower due to the sudden way in which we cross the street, although the negative DRM for multi-hex movement in an Open Ground hex can still apply.

That's enough for today. Tomorrow, we'll visit the LOS Course in 1Z5. Squad, DISMISSED.

DAY TWO: LOS COURSE



TEN HUT!

At ease. Welcome to LOS Range 1Z5. Today you will learn about LOS (A6). Your LOS determines what you can and cannot see. This is important because it determines what you can and cannot fire at. If you can't see it, you can't fire at it. More importantly, it can't fire at you.

The basic principle of LOS is that you can see it, and it can see you, if there is no obstacle in the way. But there are plenty of things that can be in the way; buildings, woods, hills, etc. Look up the road along the Z Hex Grain. We are in Z5. What other hexes can you see? "Z4, Z3, Z2, and Z1, Drill Sergeant." Right. That's easy. You can see the wooden building in Z1, and fire into it, but you can't see the woods past it, because the building blocks your LOS. Similarly, you can look down the other roads to CC7 and V7, but you can't see beyond them to the center of DD7 or U8.

You can all see the building in Y5; it is in an adjacent hex. What other hexes of that building can you see? Obviously, you can't see X2, X3, X4, W4, or W5, but how about Y3, Y4, and X5? This is where the white dots in the center of each hex take center stage. To determine if there is a LOS between two hexes, stretch a thread between their respective center dots. If the thread crosses an obstacle depiction with the obstacle visible on both sides of the thread, that LOS is blocked. An obstacle in either of the hexes in question doesn't count (unless tracing fire to/from vertices of the same hex). Only obstacles between the respective firing and target hexes block LOS. Now you see that you have a LOS to X5 and Y4, but the building in Y4 blocks LOS to Y3. Only the actual depiction of a building/woods blocks LOS, not its entire hex.

You can see Z6. What other hexes of that building can you see also? "Y7 and AA7, Drill Sergeant." Why can't you see Z7? "The building in Z6 blocks LOS, Drill Sergeant." Good. Can you see BB7? "No, Drill Sergeant." Right. The building in AA7 blocks the LOS. Can you see CC8? "Yes, Drill Sergeant." Right again, even though the LOS passes through AA7, it doesn't pass through the building itself. Can you see AA3? "I'm not sure, Drill Sergeant." This is a close one. The LOS barely cuts the corner of the building in AA4, but because the building is not visible on both sides of the thread the LOS is not blocked (A6.1) . You can't see Y2, but Y1 is in clear view. Can you see FF5? Come on, don't take all day! Any LOS along an Alternate Hex Grain is easy—you just sight along the hexspines. You better learn to recognize the easy ones because in combat you can't af-

© 2005 Multi-Man Publishing, LLC

ford to be wrong—the thread stays in your pocket until the fire is irrevocably declared. "Yes, Drill Sergeant."

Let's go into a building. Enter Y8. It has a white square instead of a hex center dot, which makes it a stairwell hex. How high is this building? "Two levels, although the building is a $2^1/_2$ Level obstacle, Drill Sergeant." Why? "Because it has a stairwell, Drill Sergeant." What level are we on? "Ground Level, Drill Sergeant." What other levels does the building have? First and Second, Drill Sergeant." Good. You were paying attention yesterday. Looking up the stairwell, you have LOS only to the level directly above, the first level in our case. You can't see a unit on level 2 of our hex, because level 1 blocks LOS. You can see hexes Y7 and Z7, because they are adjacent, but only the ground level. Levels 1 and 2 in those hexes are out of your LOS. You can't see Z6 and AA7 at all, because they are blocked by the intervening rooms of Y7 and Z7. Looking out of the building, you can see X7 but not beyond it along this Hex Grain and at this elevation. You can see through the X7 hex—to W5 for instance, because your LOS does not cross the building depiction.



Now go up the steps to level 1 . Yes, climb onto that gray level 1 counter (B23.421)—it helps you visualize where you are. You can now see both up and down the stairwell to all levels in this hex—other than the rooftop, which doesn't concern us at this stage of your training. You can also see level 1 of hexes Y7 and Z7, but not the ground or second levels of those hexes. You still can't see Z6 or AA7 at all, but you can now see past X7! When you or your target are higher than ground level, the height of obstacles becomes important. Small, one hex buildings that only have a ground Level (B23.21) are one-level obstacles. This means that they block all ground level LOS, but units on level 1 or above can see past them to Locations that are also at level 1 or above.



You can see past the obstacle in X7 to the first level of hexes T4, S5, Q6, and even N3 among others. You can't see past S5 at this level, because that is a larger, two story house (B23.22). Multi-hex buildings without stairwells, which have both a ground and first level, are $1^1/_2$ levels high. You have to be at level 2 or higher to see past them. They block both ground level and level 1 LOS. Move up the stairs to level 2. Jump onto that yellow level 2 counter.

Now you have an excellent view. You can see not only past X7, but you can also see past S5 to the second Level of O4. You can't see past O4 because that is part of a multi-story building (B23.23). A building with one or more printed stairwells has a ground level, first level, and a second level, and it is $2^1/_2$ levels high. You must be higher than second level—on a third level hill, for example—to see past it.

Since we are at level 2, we can see past level 1/level $1^1/_2$ obstacles to the ground level. The obstacle still blocks our LOS to the ground-level hex right behind it. Think of it as a one-hex shadow behind a one-level obstacle. A hex in the shadow of an obstacle is called a Blind Hex (A6.4). Looking past X7, we cannot see W7 since it is directly behind X7. We can see V6, U6, T5 and both levels of S5. We can't see R4, because that is a Blind Hex due to the building in S5.

One thing about shadows; they get longer as the distance to the obstacle increases. Put another way, the farther away an obstacle is, the longer shadow it has, and the more Blind Hexes it creates. To be exact, an Obstacle has one more Blind Hex for every five hexes between the viewer and the obstacle (A6.41). How far away is S5 from us? "Six hexes, Drill Sergeant. " How many multiples of five hexes is that? Between one and two, Drill Sergeant." Right, but in this case you discard fractions. It is one full multiple of five hexes, and it extends the shadow by how many hexes? "One, Drill Sergeant." That gives it two Blind Hexes. Can you see the ground level of Q4? "No, Drill Sergeant." What about the first level of Q4? "No, Drill Sergeant." Wrong. A one level obstacle, or a $1^1/_2$ level obstacle in this case, never blocks LOS between a second level hex and a first level hex.

Let's look out another window. Can you see DD10? "Yes, Drill Sergeant." CC10? "Yes, Drill Sergeant." BB9? "No, Drill Sergeant." Why not? "It's in the Blind Hex formed by the $1^1/_2$ level building in AA9." Outstanding. Let's go back to our previous window and look toward U8. Can you see past it to S8? "Yes, Drill Sergeant." Right. U8 is a $1^1/_2$-Level obstacle four hexes away and therefore creates only a one-hex shadow. Can you see Q8? "Yes, Drill Sergeant." Q8 is "behind" building hex R7 but because our LOS does not cross that building obstacle—it casts no shadow for us. Can you see O8? "No, Drill Sergeant, it's blocked by the building in P7 and P8." Correct. How about M8? "I'm not sure, Drill Sergeant." You can't see M8 because the building in O8, which is ten hexes away, casts three Blind Hexes. M8 is blocked by the building in O8, even though you can't see the ground level of O8 because it is blocked by the building in P7/P8. Can you see K8? "Yes, Drill Sergeant." How many Blind Hexes does it create behind it? "Three, Drill Sergeant." Why can't you see E8? "It is blocked by the woods in I8, which is 16 hexes away, and creates four Blind Hexes." Back downstairs and into the truck. We're due at LOS Course 4FF5 in 20 minutes.



■ TEN HUT.

At ease. We are at the intersection of three roads. One leads off the board, another is lined with hedges and leads to a wooden building, and the third runs toward a stone building. You can see the wooden building in Y9 as well as all the road hexes leading to it. Can you see beyond Y9 to X9? "No, Drill Sergeant." Right. The building blocks LOS. Similarly, you can't see beyond X1 to W1.



Hedges and walls have exactly the same effect on LOS, but they are different than woods and buildings because they are half-level obstacles (A6.21). Hedges and walls only block LOS between hexes on the same level as the hedge or wall, and then only if neither the target nor the firing hex is adjacent to the hedge or wall. For example, you can see past the hedge on the FF5-FF6 hexside all the way to FF10, and anyone in those hexes can see you too. You can also see along the EE6-FF6 hexside to EE7, DD8, and CC10. You can see to DD5 because the DD5-EE6 hedge forms a hexside of DD5. However, hedges block your LOS to CC5 and CC6, because they are neither part of your hex nor the hexes that you are trying to see. Can you see DD7? "No, Drill Sergeant, it's blocked by the EE6-EE7 hedge hexside." Correct. You should also keep in mind that units in Crest status or in an entrenchment cannot see past a wall/hedge hexside in their hex and at their elevation to a same level target (B9.21).

Now head down the road and cross the hedge to Z7. Look toward BB10. Can you see it? "Yes, Drill Sergeant." No, you only think you see it. The hedge on the AA8-AA9 hexside blocks LOS. All

© 2005 Multi-Man Publishing, LLC

walls and hedges are considered to extend to the very end of their hexsides (B9.1). The LOS touches the end of the hexside, because it runs through the vertex where hexes Z8, AA8 and AA9 meet. This is enough to block LOS.

On the other hand, you can sight along a hexside such as Y7-Y8 to see X7 and beyond (B9.2). You can even see DD7 from here, because the AA7-AA8 hexside is adjacent to your hex, and the CC7-CC8 hexside is adjacent to DD7. If you fired at DD7, the target would get a TEM of +1 because of the CC7-CC8 hedge. If it fired at you, you would get a TEM of +1 because of the AA7-AA8 hexside. The same is true if you fired at—or were fired at from—X7, due to the Y7-Y8 hexsides.

Can you see CC8? "Yes, Drill Sergeant." BB8? "Yes, Drill Sergeant." AA9? "Yes, Drill Sergeant." Would a target in AA9 get the hedge TEM? "Yes, Drill Sergeant" Right, for the same reason that you are prevented from seeing BB10, the LOS clips the end of the hexside. Can you see BB9? "No, Drill Sergeant." DD9? "No, Drill Sergeant." EE7? "No, Drill Sergeant." Okay, you chowderheads are getting the hang of hedges.

Now, at the risk of confusing you, I'm going to touch upon how hedges differ from bocage. Bocage is a tall hedge grown atop an earthen mound and replaces hedges/walls when specified by SSR. Bocage is a level 1 obstacle—not a half-level obstacle—and has a TEM of +2—not +1 like a hedge. You cannot see down the length of a bocage hexspine as you can with a hedge and you must have Wall Advantage to fire through it to a non-adjacent hex. It costs two extra MF to cross a bocage hexside—not just the one extra MF of a hedge. Perhaps most importantly, a unit in a bocage hex which can't be seen by an unbroken enemy except through a bocage hexside can grow a "?" counter at the end of its Player Turn. If you find yourself in a bocage scenario, I'd advise getting acquainted with B9.5 real quick.

Let's check out the grain field now. While it Hinders your fire, you can still see through grain hexes. You can see V7, T7 and R7. What is the DRM for firing at a unit in R7? "+4, Drill Sergeant." Right, +1 for the woods and +3 for the three grain hexes. Even though that's a lot of Hindrance, you can still see R7. The maximum allowable Hindrance DRM for any one shot is +5; beyond that, the target is considered out of your LOS (B.10).

Now head to the biggest building on this board—P6. Board 4 is very flat. In fact, this building contains the only Location above ground level on board 4. Before we go upstairs, let's look around from the ground level. What other buildings can you see from here? "P8, CC6, S2 and P1, Drill Sergeant." Right. You have to look through grain to see most of them. What blocks the buildings that you cannot see? "Woods, Drill Sergeant." Can you see O9? "No, Drill Sergeant; the wall blocks the LOS." Can you see Q2? "Yes, Drill Sergeant." Q1? "No, Drill Sergeant, the Q2-Q3 hedge blocks the LOS." Can you see R1? "No, Drill Sergeant." Can you see CC7? "Yes, Drill Sergeant." DD7? "No, Drill Sergeant."

Now climb the inherent stairs (B23.22) to the first level of P6. Hop onto that gray Level 1 counter. From up here, you still can't see past the woods which are Level 1 obstacles. How high do you have to be to see over woods? "Level 2, Drill Sergeant." Correct. Woods and buildings still block your LOS, but you can easily see over grain, walls and hedges. Grain offers no Hindrance to your view from up here. For example, you can now fire at P1 or Y6 with no Hindrance DRM. You can see right over the grain. "But Drill Sergeant, we're only a 7-4-7 and Y6 is nine hexes away. We can't even use Long Range Fire against it." Very good, Cantatore, but I was speaking generally—hoping that someday you might be entrusted with a MG. Besides, you can still see it—even if you can't hit it with your FP.

Can you see O9? "Yes, Drill Sergeant." Right—and there is no TEM or Hindrance for fire into O9 from here. What about O8? "We can see it, Drill Sergeant." Of course you can, but it still gets the wall TEM of +2. Can you see Q2? "Yes, Drill Sergeant." Q1? "Yes, Drill Sergeant." R1? "Yes, Drill Sergeant." And CC7 and DD7 too. You can see much more from up here, but you can be seen from many more places too. When you have an elevation advantage you are more dangerous to your enemy, but you are also a better target yourself. Whatever you can see, can see you too. Fall in on the hilltop on 2M5 in ten minutes. Squad, DISMISSED.



■ TEN HUT!

At ease. Here on 2M5 we are on a third-level hill hex. From here we can see all the other third-level hill hexes on board 2. An obstacle has to be higher than a particular level to block LOS between that level's hexes. Below us are woods in M4. Woods are a one-level obstacle, so woods on level 2 hexes are level 3 obstacles. From 2M5, you can't see past these woods to a lower level hex. Other level 3 hexes also block LOS to lower levels. From 2M5, you can't see O6 or any other hexes in that direction because of the plateau effect of N5—another third-level hex. Similarly, you can't see M3, M2, or M1 because of the third-level woods in M4. Of course, you can see both M4 and N5 with no problem.

You can see directly downhill to lower hexes. You can see all the level-two hexes from N4 to R2. You can see L4, K4, J3 and the woods in I3. You can also see ground-level hexes J2 and I2 among others. Hills have a much gentler slope than buildings and woodlines, and so don't create Blind Hexes unless they are five or more hexes away (B10.23). However, elevation advantage over an obstacle can reduce the number of Blind Hexes by one for each level of elevation advantage that is more than the one level needed to see over the obstacle in the first place (A6.42). In the case of non-Cliff Crest Line obstacles (B10.11), Blind Hexes can be eliminated altogether by sufficient elevation advantage—but with other obstacles a minimum shadow of one Blind Hex is always left, regardless of the amount of elevation advantage.

For example, you can see K6 and K8, but the J8 and K9 Crest Lines are five hexes away and create one Blind Hex. However, we are on level 3 and the obstacles are only level 1 Crest Lines, so our extra elevation advantage negates the Blind Hex and we can see J9 after all. Now look at the level 2 hill hex F7. Since it is seven hexes away, it has a Blind Hex for every elevation drop behind it. It is only one level below us so we don't negate any Blind Hexes by elevation advantage. E8 is one hex behind F7 and one level lower which takes it out of our LOS. D8 is two hexes behind F7 and two hexes lower, so it too is in the shadow of F7; if we could see it, it would create just one Blind Hex since it is nine hexes away but we have a two-level elevation advantage over it. C9 is beyond the shadow of F7, and we could see it if there were no woods obstacle in D8. C9 is also ten hexes away, which extends its shadow to three hexes, but our elevation advantage reduces the shadow to two so we still can't see B9 or A10.

Woods on a level 1 hill become level 2 obstacles—even that portion of the woods depiction which may be growing on what appears to be a ground level portion of the hill hex (B10.1). Being

© 2005 Multi-Man Publishing, LLC

on level 3, we can still see over them, but they create a Blind Hex nonetheless. You can see M6 and M7, but the woods in M7 cast a shadow. You cannot see M8 because it is one hex behind the woods and one level below the elevation of the woods; and M9 is not visible because it is two hexes behind the woods and two levels below the elevation of the woods (A6.43). The ground level building in M9 still has its one hex shadow, so you can't see M10, either. Unlike shadows cast by hills, woods/buildings never lose their one-hex shadow regardless of your elevation advantage.

Can you see the woods in I3? "Yes, Drill Sergeant." Right. We established that earlier. Can you see H2? "No, Drill Sergeant." G2? "No, Drill Sergeant." F1? "Yes, Drill Sergeant." Good. It is two levels below the woods in I3, but it is three hexes behind it. Can you see E1? "Yes, Drill Sergeant." Let's try a different direction. Can you see J6? "Yes, Drill Sergeant." I7? "No, Drill Sergeant." H7? "No, Drill Sergeant." Right—and even if there were no woods in I7, the woods in J6 would block LOS to H7 because H7 is at ground level and the woods in H7 are only a level 1 obstacle (A6.43). Can you see G8? "No, Drill Sergeant." Wake up! Yes you can! G8 is level 1, and is two hexes beyond I7—but only one level below the obstacle so I7 doesn't block it either. G8 is in plain view as you will doubtless find out the day someone shoots you from there. Can you see F8? "Yes, Drill Sergeant." E9? "Yes, Drill Sergeant." Good. You remembered our extra elevation advantage over F8, which negates the Crest Line's Blind Hex. D9? "No, Drill Sergeant." C10? "Yes, Drill Sergeant." Outstanding. The distance to E9 and our extra elevation advantage over E9 cancel each other out, so it has only a one-hex shadow.

Now look along the N4-R2 Hex Grain. You can see the second level hexes from N4 to R2. R2 ends in a cliff which has a LOS shadow as if it were a building. There is a two-level drop from the cliff to S2, and R2 is five hexes away, so the cliff has a three hex shadow. Can you see S2? "No, Drill Sergeant." T1? "No, Drill Sergeant." U1? "No, Drill Sergeant." Wrong. Two out of three isn't good enough in combat. U1 is level 1 which reduces the shadow to it by one hex. Looking at it another way U1 is one level below the obstacle, R2, and three hexes away. The distance of the obstacle from the viewer—five hexes—increases the shadow by one hex; in addition, there is a one-hex shadow due to the net elevation change of one level between R2 and U1. Thus the shadow of R2 is two hexes in length—but U1 is three hexes from the obstacle, which makes it visible to you. Of course, if a cliff is part of your hexside, it doesn't block your LOS to a lower Location; you can see right over the cliffs on the M5/L4 and the M5/L5 hexsides.

To practice LOS techniques, you are going to repeat the same exercise from a number of different vantage points. From a particular hex, look along the Hex Grain in all six directions and list the hexes that are in your LOS. To start with, go to J4 and look around. What do you see? I'll give you five minutes to write it down.

■ In the six directions you should have seen: J3, J2, J1; K4, L3, P1, Q1, R0; K5; J5, J6, J8, J9; I5, H5, G6, F6, E7, D7, A9; I4, H3, G3, F2, D1. Anybody have any problems?

"Why can't we see O2, Drill Sergeant?" O2 is at level O and is two hexes behind the level 2 woods obstacle in M3. You are at level 3 so you don't have any extra elevation advantage to reduce the woods' shadow.

"Why can we see A9, Drill Sergeant?" C8 is seven hexes away from us—increasing its shadow by one, but it is also two levels below us—decreasing its shadow by one.

"Why can't we see E2, Drill Sergeant?" Even though we have a two-level elevation advantage over the woods in F2, woods—like buildings and cliffs—always create at least one Blind Hex, which in this case is E2.

Now, what can you see along the Hex Grains from Q6?

■ From Q6 you can see: Q5, Q4, Q3, Q2, Q1; R5, S5, U4, W3, X2, Y2, Z1; R6, S7, V8, Z10; Q7, Q8, Q9, Q10; P6, O7, N7, M8, L8; P5, O5. Any questions?

"Why can we see Q3? Doesn't the woods block LOS?" The woods are a level 2 obstacle, but Q3 is at level 2 also. The woods must be higher than Q3 to block LOS. Blind Hexes can only exist if we are at least as high as an obstacle that is itself higher than the hex we are looking at.

"Why can we see Q1, Drill Sergeant?" The only obstacle in question is the hill Crest Line in Q2 which has no shadow since it is within four hexes of us. Crest Lines, unlike other obstacles, can have their shadow reduced to 0 by elevation advantage.

"Why can we see W3, Drill Sergeant?" W3 is only one level below U4, but two hexes away. "How about Y2, Drill Sergeant? X2 is five or more hexes away. Doesn't it create a Blind Hex?" The Crest Line in X2 has one Blind Hex because of distance away from us, but we have a two-level elevation advantage over it which reduces its shadow back to 0. Similarly, our extra elevation advantage cancels X9's being a Blind Hex due to distance, so we are able to see Z10.

Now try the view from U4. It is only a level 2 hex, but see what you can see along the Hex Grains.

■ You should have seen: U3, U2, U1; V3, W3, X2, Y2, Z1; V4, W5, Y6, Z6, CC8; U5, U7, U8, U9; T4, S5, R5, Q6; T3, S3, R2. Any questions?

"Doesn't the wall block LOS to U9, Drill Sergeant?" No, a wall blocks LOS traced on the same level only. If you are above the wall it has no effect on LOS. Now try Y6 and check out the LOS along all Hex Grains.

■ From here you can see: Y5, Y4; Z5, AA5; Z6, CC8; Y7; X6, W7, U8, T8, P10; X5, W5, U4, R2. Any questions?

"Why can't we see Q10, Drill Sergeant?" The woods in S9 creates two Blind Hexes because it is six hexes away and we only have a one-level elevation advantage. Push on to F7 and repeat the exercise.

■ You should see: F6, F5, F4, F3; G7, H6, J5, K5; G8, H8, L10; F8, F9, F10; E8, D8, A10; E7, D6, C6, B5, A5. No questions? Outstanding. Let's try a couple from ground level. Go to O10 and repeat the exercise.

■ You are able to see: O9, O8, O5; P9, Q9, R8; P10; N10; N9, M9. When looking uphill, you can see only the first hex of each level above you; O9, O8 and O5 in this case. One more time, go to C6 and repeat the exercise.

■ From here you are able to see: C5, C4; D5, E5, G4, H3; D6, E7, F7; C7; B6; B5, A5. The D5-E5 wall blocks LOS to F4, but not to hill hexes G4 and H3. E7 and F7 would not be in LOS if you are of the opinion that your LOS crosses the building obsta-

© 2005 Multi-Man Publishing, LLC

cle in D6. I'm not, but these things have been known to vary slightly from one board to another. For our final LOS session, fall in at the stone building in 24Z9 after chow. Squad, DISMISSED.

24

■ TEN HUT!

At ease. Around you we have mostly familiar terrain. Can you see BB9? "Yes, Drill Sergeant." DD10? "No, Drill Sergeant." DD9? "Yes, Drill Sergeant." What? "No, Drill Sergeant." That's better. The end of the wall blocks LOS. In training you get a second chance; in actual combat you might not.

Looking in the other direction you see an orchard in X9. It Hinders LOS in the same manner as grain except that it Hinders any LOS traced through the orchard hex —even a LOS traced along the orchard's hexside. The LOS does not have to be drawn through the orchard symbol depiction to be affected; the entire hex is considered composed of orchard, including the hexsides. You can see through the orchard to W10, V9, V10, U10, and T9 with a Hindrance of +1. You can see past the grain field to another orchard that is in BB6. What is the total Hindrance of fire into BB6? "+2, Drill Sergeant." Right. Into BB5 or CC6? "+3, Drill Sergeant." Right. The orchard adds its Hindrance to the Hindrance from the grain. How about CC5? "+4, Drill Sergeant." DD3? "+5, Drill Sergeant." DD2 or EE3? "+6, Drill Sergeant." No, you don't have LOS to those hexes. You can't have a Hindrance DRM of more than +5 (B.10). You can't see beyond CC3-DD3-EE4 because the combined Hindrance finally builds up so that it blocks LOS.

Now move to the wooden building in Y9. The brush acts exactly like grain. It only Hinders LOS drawn through the brush depiction itself. You can see right through the brush to V7 and W7, but with a Hindrance of +2 in each case. You can also see U8, but with a Hindrance of +3, +2 for brush and +1 for the orchard.

"Drill Sergeant, the LOS cuts through three hexes that contain brush: X8, W8, and W9. Shouldn't there be a Hindrance of +3 for brush?" The brass has changed the wording of A6.7. Hexes W8 and W9 are both two hexes away so only the Hindrance in one of those two hexes apply. Now let's move out to Q4 to study more effects of orchards on LOS.

■ Look at the orchard in O3. Even though you can see past the tree trunks to other hexes on ground level, the leafy crowns of the trees in June block LOS to and from higher hexes as if the orchard were a woods hex (B14.2). In fact, an orchard is a lot like a woods hex without the undergrowth. Thus, you cannot see past the orchard in O3 to N2.

On the other side of the hedge you see a lumberyard in Q5. For LOS purposes the lumberyard is exactly like a single story building. Can you see the lumberyard in Q6? "No, Drill Sergeant." Can you see R5? "Yes, Drill Sergeant." P5? "Yes, Drill Sergeant." Good.

Let's go to M8. The path through the woods in L8 allows us to move easily through the woods, but it doesn't do anything for vision. Can you see L8? "Yes, Drill Sergeant." Can you see K9? "No, Drill Sergeant." What types of terrain do not affect LOS, Collier? "Paths, roads, shellholes, Open Ground and Water Obstacles, Drill Sergeant." Good anticipation; the pond doesn't block LOS at all. You can see directly from L8 to M10, and from M9 to L9, right over the water. Now assume that an enemy unit is in O10 using Bypass along the O10-O9 hexside. Is there a Hindrance DRM to your fire at vertex O10-N9-O9? "Yes, Drill Sergeant; +2" Wrong! A unit is always at the higher elevation when Bypassing an obstacle that is at the higher elevation of a Crest Line in its hex (A4.34). Therefore, your attack has no Hindrance DRM.

Gullies don't block LOS but they're hard to see INTO because they're so narrow. To see INTO a gully, your distance in hexes from the gully must be no greater than your elevation above the bottom of the gully (A6.3). I'll show you what I mean. Go to H7. You are now two hexes away from the nearest gully. The bottom of the gully is at level -2, but here in the valley our own elevation is -1, so our elevation above the gully bottom is only one. How far from a gully must we be to see INTO that gully? "One hex, Drill Sergeant." Right. Move to H6. Now you can see INTO the gully in hexes G6, H5 and I6. What's more, you can see along the gully if you can see INTO it, as long as your LOS doesn't leave the gully symbol itself (inclusive of the dark green background; B19.2). You can see not only H5, but H4 and H3 as well, but not H2. You can't see J5 either, because the woods in I6 block your LOS. Units in Crest status (B20.9) are considered a Level above the gully and therefore can be seen as if they were at normal Open Ground level. One more question: is there a Hindrance DRM for firing into H3? "No, Drill Sergeant—because we're at a higher level than a unit IN the gully." Right. The Brass have declared. that if the firer and target are at different elevations, an intervening gully-brush hex presents no Hindrance. If the unit in H3 were in Crest status, then the H4 brush would Hinder our fire at it.

Now enter the gully in H5. What can we see? The six adjacent hexes, as well as H3 and F6. LOS to H3 has a Hindrance of +1 due to the brush in H4, and in F6 you can see both the bridge and the gully below it. "But Drill Sergeant, my LOS to H3 doesn't actually cross any brush depiction—it lies entirely within the gully symbol. Why should the brush Hinder my LOS?" Observant cuss, aren't you Ellberger? The brass has declared that whenever brush or woods are depicted on both sides of a gully depiction in a gully hex they are considered part of that gully depiction.

Move along the gully to H3. This is one of the rare places where you cannot see INTO an adjacent hex. H2 is out of your LOS because it is also in a gully and that gully isn't directly connected to our gully hex through a shared Depression hexside. From here you can see F2, G2, I2 and J2 because they are two levels above us and only two hexes away. What other hexes can you see from here? "G3, G4, H4, H5, H6, I3 and I4, Drill Sergeant." Right—but remember that if we were in Crest status here, we'd be at level -1 and our LOS ability would change considerably.

Move back along the gully to F6. You cannot see anything on top of the bridge; the bridge blocks LOS between units on and below it (B6.2). What hexes can you see? "The six adjacent ones, H5, I5 and D7, Drill Sergeant. " Very good. Now move to E7. The cliff along one side of the gully allows you to see adjacent hexes on top of the cliff, but nothing beyond it—regardless of height (B11.21). You can see E6, D6 and D7, but not C6. If the cliff weren't there, you would be able to see C6 since it is two levels higher and only two hexes away.

Now move back up the gully to D9. Even though we can see hexes D6 through D3, our LOS passes through the crags in D7. A crag Hinders LOS that passes through any portion of its hex, in the same manner as orchards (B.6). However, crags are not an

© 2005 Multi-Man Publishing, LLC

obstacle or Hindrance to LOS from a higher Level. LOS traced to D6 has a Hindrance of +1, for example, but the LOS traced to D2 has no Hindrance at all. Let's go to K3 for another look at crags.

From K3 you can see I4 with a Hindrance of +1 . Can you see H4? "Only the Crest status Level, Drill Sergeant, since it is a gully." Can you see the woods in G5? "Yes, Drill Sergeant." With what Hindrance? "+2, Drill Sergeant." Good. What about J4? "We can see it with a Hindrance of +1 due to the crag, Drill Sergeant." Outstanding. You can see G3 with a Hindrance of +1. A cliff hexside never blocks LOS sighted along it (B11.2), so we can see past the J2/J3 hexside, but the crag hexside is sufficient to Hinder LOS into G3.

You're ready for the last LOS exercises. Start in the gully in C10. As before, list what you can see in each of the Hex Grain directions.

■ You should have seen the five adjacent hexes plus E9 and A9. A fellow with a magnifying glass and a picky demeanor might make a case that the LOS to D9 crosses light green prior to reaching the D9 hex center dot and therefore E9 is not in LOS. A good lawyer might win this case after a few appeals, but this sort of situation comes under the heading of House Rules (or even a LOS die roll; A6.1). In my games, I expect LOS to be more clearly blocked and assume that it isn't otherwise. Players should come to an understanding over just how picky they'll be before these problems develop. Now try from the woods in G5.

■ You were able to see: G4, G3, G2; H4, I4, J3, K3, L2; H5, I6; G6, G7, G8, G9, G10; F5, E6, D6, C7, B7, A8; F4. Try it again from K7, and remember it is June.

■ You should have seen: K6; L6, M6; L7, M8, N8, O9; K8; J7, I8, H8, G9, F9; J6.

"Why couldn't we see P9, Drill Sergeant?" An orchard in season is a one-level obstacle to LOS from a higher level. You can see through the orchard to O9 which is on the same Level as K7 and the orchard, but P9 is a level higher, so the orchard blocks LOS between K7 and P9. Now see what you can view from the woods in F2 above the valley.

■ You should have seen: F1, F0; G2, I1, J0; G3, H3, I4, J4, P7; F3, F4, F9, F10; E3, C4, B4, A5; E2, D1, C1, and B0. I hope you remembered that you could see over the woods in the valley to the ground Level terrain on the other side of the valley.

Let's review LOS from a building. See what you can see from the first level of S7. Remember that the first level of a building in a valley at level -1 is at level 0.

■ You should have seen: S6, S5 (both levels); T6 (first level); T7, U8, V8, W9; S8, S10; R7, Q8, P8, M10; R6, O6, M4 (first Level). Any questions?

"Why can't we see S2, Drill Sergeant?" S5 is a $1^1/_2$-Level building, which gives it a net height of level $^1/_2$. You are at level 0 so S5 blocks your LOS to anything below level 1. S2 is at level 0 so it is blocked by S5. For the same reason you can't see past M4 to J2. One last exercise: what can you see along the Hex Grains from the second level of V3, the highest point on board 24?

■ From V3 you saw: V2, V1, V0; W3, X2, Y2, Z1, BB0; W4, Y5, Z5, AA6, EE8, FF8, GG9; V4; S5 (first Level), O7, N7, L8, I10, H10; U3, T2, S2, R1, Q1, P0.

"Why can't we see DD7, Drill Sergeant?" The orchard in season, when seen from above, is a one-level obstacle, like a woods hex. It normally has a one-hex shadow, but since it is six hexes away it obscures two hexes. DD7 is two hexes behind it and therefore you can't see it. "Is that why we can't see V10, Drill Sergeant?" Exactly. "Drill Sergeant, why can't we see U4? After all, it is in the adjacent hex?" Actually, you can see the rooftop, but the second level is obscured by the roof. You can't see through a roof without X-ray vision and although there may be several Clark Kents among you, I don't see any Superman! "Why can't we see the bottom level of S5 since we can see the first Level?" U4 has a two-level drop to the ground in T4, so it has two Blind Hexes at ground level. The ground level of S5 is one of them, but the first level is only one level below the obstacle and there is only one Blind Hex at that Level, so you can see the first level of S5. "Why can't we see the first level of R5?" Building S5 blocks LOS to everything in R5 but the rooftop, and you can't see through the roof to the first level inside the building. Any more questions? Good. I hope none of you leave with the impression that you can only see along Hex Grains. Tomorrow you will put your LOS knowledge to work at the Rifle Ranges where you will qualify with your weapons. Report to 4C7 at 0600 with your IFT in hand. Squad DISMISSED.

DAY THREE: RIFLE RANGE



■ TEN HUT!

At ease. Previously we just took walks through the countryside, but combat is more than a Sunday School picnic. Today we start to get serious. We will learn how to use our weapons. The Firing Range runs from 4C7 to the woods in M2.

To fire at a target, load your rifle, remove the safety, hold the stock firmly against your shoulder, and aim at your target. Position the target squarely within your sights, take a deep breath, let it out halfway, and squeeze the dice before you roll them. Roll one white die and one colored die, and add the resulting numbers on the two dice together to obtain a *Dice Roll (DR)*. The lower the DR, the more damage you are likely to inflict on your target.

Before you fire, carefully select your target. You can fire at any Location that you can see, within your weapon's range. Infantry Small Arms fire into a Location affects all enemy occupants of that Location except those to which a LOF is blocked such as being entrenched behind a wall (B9.21) or non-Crest units IN a Depression (B20.92) (unless it is Defensive First Fire, which affects only moving units), but affects friendly units only if in a Melee (A7.4). However, you can fire at only one Location each time that you fire, unless you have a MG or an underlined range factor which qualifies you for Spraying Fire (A7.34, A9.5).

Next, determine the amount of *firepower (FP)* that you are using against your target. This depends on your inherent FP, the range

© 2005 Multi-Man Publishing, LLC



to the target, and several other factors. Now you will learn what those numbers on your uniform mean. The first number is your FP. The second number is your Normal Range. In your case, your FP is seven and your Normal Range is four hexes. If you fire at a target in an adjacent hex, your FP is doubled due to Point Blank Fire. How much FP would you have against a target in D6? "14, Drill Sergeant." Right. You use your normal FP beyond Point Blank range and up to your Normal Range. At which hexes in our Firing Range do you have seven FP? "E6, F5 and G5, Drill Sergeant."

You can fire beyond your Normal Range up to double your range. Which is the farthest hex at which you can fire? "K3, Drill Sergeant." How far away is K3? "Eight hexes, Drill Sergeant." Beyond your Normal Range, your FP is halved. How much FP would you have if you fired at K3? "3½, Drill Sergeant." How much FP would you have against L2? "I don't know, Drill Sergeant." You have no FP against L2 since that is more than double your Normal Range, you ninny!

Once you have determined your total FP, use that number to locate the proper column to use on the *Infantry Fire Table (IFT)*. You have all been issued an IFT in your *ASL* rulebook; you should have it with you now and at any time you are in danger of engaging in combat. Look along the "DR/FP" row until you find the highest bold number not higher than your available FP. This is the column of the IFT you use for your attack. In your case, you would use the 12 column for Point Blank Fire, the 6 column at Normal Range, and the 2 column at Long Range.

"But our FP factors are all higher than that, Drill Sergeant." You still use the next-lower column if you haven't got at least as much FP as that listed at the top of the column (A7.3), blockhead. For example, you use the 8 column for 11 FP even though 11 is closer to 12 than it is to 8.

Next roll two dice and sum the numbers to get a total DR between 2 and 12. Cross-index this DR with the correct FP column on the IFT to determine the result. If the result is "—", you wasted good ammunition. Your target is unaffected aside from maybe wondering what you were shooting at. A "PTC" is a bit better (A7.305); each unit in the target Location must take a *Pin Task Check (PTC)*. Now they at least know what you were firing at. Your opponent makes a DR for each affected unit. If the DR exceeds the morale of the unit, it is pinned. The men in the pinned unit are sufficiently discouraged to keep their heads down. This halves their FP and disadvantages them in other ways.

"What is a unit's morale, Drill Sergeant?"

Morale is the third number on your uniform. Your morale is 7. European/American squads usually have Good Order Morale of 6, 7, or 8. A leader's morale is his first number. My morale is 8. Leaders have morale ranging from 6 to 10.

As I was saying, if a unit rolls higher than its morale during a PTC, it is pinned. If it rolls its morale or less, it is unaffected by your fire. For example, if you took a PTC, you would be pinned if you rolled 8 to 12. and okay if you rolled 2 to 7. I would be pinned if I rolled 9 to 12, and okay if I rolled 2 through 8. Major Eastwood, who is a 10-3 leader, would be pinned only if he rolled an 11 or 12.

The next-better result is a *Normal Morale Check (NMC) (A7.303)*. This is similar to a PTC. Each unit in the target Location must take a *Morale Check (MC)*. However, there is more at risk. If the unit rolls higher than its morale, it breaks and is flipped over to its broken side. When a unit is broken, it cannot fire or move normally; all it can do is rout away or wait until it rallies. If the unit rolls exactly equal to its morale, it is pinned (A7.8) just as if it failed a PTC, but it is not broken. Thus, the unit is unaffected only if it rolls less than its morale. If it rolls a 12, it has taken a Casualty MC (A10.31) and suffers Casualty Reduction. Casualty Reduction wounds a SMC (perhaps mortally), eliminates a crew or *Half Squad (HS)*, and Reduces a squad to a HS.

1MC, 2MC, 3MC, and 4MC are variations on the NMC result. A MC must be taken for each affected unit in the target Location, but the specified number is added to the DR. For example, if you score a 2MC on a target Location, each affected unit in that Location must add two to its Morale Check DR. However, a Casualty MC occurs only if the Original DR—before all modification—is 12.

More devastating than a MC is a K result (A7.302). There are four possible K results: K/1, K/2, K/3, and K/4. At least one of the target units, chosen randomly, suffers Casualty Reduction (A7.302); all the remaining target units take a MC, adding the number following the "K/" to the DR. So, if you get a K/1 on the target, at least one unit is Reduced, and all target units—including any HS created by Casualty Reduction—must take a 1MC.

Worse yet is a KIA which stands for Killed In Action (A7.301). Each KIA is preceded by a number, which is the number of units in the target Location that are removed from the mapboard via cardboard body bags. The exact units are chosen randomly if there are more target units than the KIA number. All other target units are broken; no MC is necessary. Scoring a KIA result is like hitting the jackpot on a slot machine.



You are now going to use the Firing Range. You will be firing strictly on your own with no leadership benefit from me. All fire will be considered Prep Fire, and when you resolve it you will be marked with an orange-on-white Prep Fire counter (A.12). The Prep Fire counter signifies that you have already fired and will not be allowed to fire or move until it is removed at the end of the Advancing Fire Phase. A simulated German First Line squad, a 4-6-7, is your target. There it is now in K3 where you can fire at it at Long Range since it is eight hexes away. How many FP factors do you have? "3½, Drill Sergeant." Right. Roll the dice and use the 2 column of the IFT. And for God's sake, keep that weapon pointed down range. The first trainee to hit my counter with an accidental DR will need a boot extractor before he can sit down.

Your first DR is a 7. You missed, try again. DR 6: a PTC. What is a PTC? "Pin Task Check, Drill Sergeant." How does that effect the target squad? "If it rolls 8 through 12, it is pinned. If it rolls 7 or less, it is okay." Your next attack DR is a 4. What happens?

"The squad must take a 1MC, Drill Sergeant." What does it need to pass the 1MC? "It needs a 6 or less, Drill Sergeant." And what happens if it rolls a 6? "It is pinned, Drill Sergeant." What if it rolls a 12 for its MC? "It is Reduced to a HS and broken, Drill Sergeant." Right. The HS it is Reduced to is determined by the squad's Class, which is in the upper right corner of its counter. For instance, the 4-6-7 squad would Reduce to a 2-4-7, a First Line HS, which is broken.

Bulls-eye! You've rolled a 2 for a K/1 result. What happens to the target squad? "It is Reduced to a 2-4-7 HS, Drill Sergeant." And then what? "The HS must take a MC, Drill Sergeant." Does it add anything to this MC? "Yes." Yes, what? "Yes, Drill Sergeant." No, blockhead, what does it add to its MC DR? "I don't know, Drill Sergeant." It adds the number following the "K/", which is 1 in this case. Remember it. Your opponent may not be so co-operative. That 2 DR would have been subject to

© 2005 Multi-Man Publishing, LLC



K

Cowering in combat, but here on the Firing Range we'll forget that for the time being.

We have another simulated target: a 4-4-7 Second Line German squad in E6, two hexes away. What is the column that you use on the 1FT? "The 6 column, Drill Sergeant." Why the 6 column? "The target is at Normal Range and we have seven FP at Normal Range, Drill Sergeant."

Your first shot is a 9 which is a miss. You are shooting high. . . adjust your dice. Your next shot is an 8. What is the effect on the target squad? "It must take a PTC, Drill Sergeant. If it rolls greater than its morale, it is pinned." What DR does it need to pass its PTC? "7 or less, Drill Sergeant." Outstanding.

It passed its PTC. Your next DR is a 4. What happens? "The target must take a 2MC, Drill Sergeant." What if the target rolls an Original 6? "It adds the 2 of the 2MC to get an 8, which is greater than its morale, and it breaks, Drill Sergeant." A DR of 3. What happens to your target? "It suffers a K/2 result. It is Reduced to a HS which must take a 2MC." Which HS is the 4-4-7 Reduced to? "A 2-3-7, Drill Sergeant." What DR does the HS need to stay unbroken? "Five or less, Drill Sergeant." What happens if the HS rolls a 5? "It is pinned, Drill Sergeant." What if it rolls a 12? "It is Reduced, Drill Sergeant." Reduced to what? "Nothing; it is eliminated."

Okay. . . we have a simulated 4-6-7 squad target in D6. All of you should be able to hit it at this range. What column do you use when firing at D6? "12, Drill Sergeant." What DR results in a miss? "11 & 12, Drill Sergeant." Your first DR is a 10. What happens? "The squad takes a PTC, Drill Sergeant. It must roll its morale or less to avoid being pinned."

Now I want you to fire at the simulated Conscript 4-3-6 squad target at every range from eight to one hex. Keep firing until you eliminate it. And then fire at it again at the next closer range, until you eliminate it again. Remember that if it breaks it then uses its broken side morale, which is 5 for this unit. A broken squad that breaks again is Reduced to a HS. A broken HS that breaks buys the farm. What HS does this squad get Reduced to? "A 2-3-6, Drill Sergeant." Lock and load one magazine. Keep your weapons pointed down range. Commence Fire.

■ You should have noticed that targets usually last a long time at Long Range, but tend to melt away rapidly under Point Blank Fire. However, nothing is guaranteed. Some of you may have dispatched the Long Range target faster than the Point Blank one. You have been firing only at targets in the open so far, but in actual combat your opponent will seldom be so gracious. Most terrain offers some protection in the form of modifiers added to the IFT DR. For example, if the target is in woods, you must add +1 to the DR of your attack. This is called a TEM. It offers troops in the woods more protection than they would get in Open Ground. For example, if your target is in E5, a woods hex, and you attack it with your normal FP of 6, you would miss on an Original DR of 8 or more. A PTC result would occur on an Original DR of 7, and so on. What Original DR would be required to obtain a NMC? "Six, Drill Sergeant." Right, because 6 plus 1 for the woods TEM is 7, and a 7 DR on the 6 column of the IFT yields a NMC. What would result in a 1MC? "4 or 5, Drill Sergeant." Right. What would you get with an Original 2 DR? "K/2, Drill Sergeant." Then how could you get a KIA? "Attack with more FP, Drill Sergeant." Exactly.

It's time to learn more about how terrain protects targets from fire attacks. Load onto that truck—we're going to another range at 24N6.

24

■ Fall In. Around us you see woods in O6, a wooden building in N7, and a stone building in M6. The woods affords some protection since it has a +1 TEM. A wooden building is better because it has a +2 TEM. A stone building is the best with a +3 TEM. As an exercise, we have a simulated German First Line 4-6-7 squad target in each of those three hexes. Fire at each of them, one at a time, taking turns, until you eliminate all three. Remember that you have 14 FP with Point Blank Fire, the target squad has a morale of 7 when broken, and it Reduces to a 2-4-7 HS with a broken Morale Level of 6. Fire when ready.

■ You should have noticed that the squad in the stone building is a lot tougher to break than the one in the woods. You may have also noticed that being in good terrain doesn't guarantee anything; it only makes it tougher for the attacker to hit you—not impossible. You may have actually broken the target in the stone building before the one in the woods.

"Drill Sergeant, we have been firing at the targets from the open. If we were in the same building, would the target still get the same TEM?"

Yes, even if both you and the target were in the same Location of the same building or firing up or down stairs. The TEM for buildings and woods are the same regardless of the terrain that the firing unit occupies except for Factories (B23.741) which you won't encounter anytime soon.

Let's move to Q7. You see a lumberyard in Q6. This is treated exactly the same as a single story wooden building for TEM and LOS purposes. There is also a hill in hexes P7 and Q8. It is not really a hill, we are actually in a valley, but everything is relative so it is just like a hill as far as we are concerned. Having a Height Advantage (B10.31) gives you some protection—a TEM of +1 to be exact—but it applies only if you receive no other beneficial TEM and is never applicable to units in Crest status. For example, a target in Q8 gets a TEM of +1 for being uphill from you, but a target in P7 gets only a TEM of +1, even though it is both in woods and uphill from us. It can choose one method of protection or the other, but not both.

Hedges and walls also provide protection. Let's move to Q4. There is a wall between you and the wooden building in Q3, and hedges between us and the buildings (or lumberyard) in P4, Q5 and R4. A hedge has a TEM of +1 if you are firing across it, and a wall has a TEM of +2. However, a target can only use either the hexside TEM or the TEM of its hex—not both (B9.31). If you fire at a target in Q3, it can use either its wall TEM or its building TEM, which are both +2. If you fire at a target in R4, it has a choice of a hedge TEM of +1 or a stone building TEM of +3. You're all thinking that it's obvious which TEM the target would choose, but it's not always that obvious.



Sometimes it is wise for a defender to choose a lower hexside TEM to retain his Wall Advantage (B9.32). When units from opposing sides are in adjacent hexes separated by a hedge or wall, they cannot both use the same wall or hedge for protection; they would be practically on top of each other. Wall Advantage also applies to hedges and Bocage as well as walls. A Wall Advantage counter is used to mark the unit(s) with Wall Advantage, and can be claimed in five (5) different cases: 1) during setup; 2) at the *end* of any RPh (ATTACKER first); 3) during a friendly MPh/APh either before

© 2005 Multi-Man Publishing, LLC

or after expending an MF/MP; 4) when HIP status is lost; or 5) whenever all enemy units lose/forfeit WA over shared wall/hedge hexsides. Also, a unit unable to claim in-hex TEM of at least +1 *must* claim WA (so no WA counter is necessary in this case). Suppose there is an enemy squad in Q3; if they claim WA at the end of the RPh before we move, then we would get no TEM for the wall when we move into Q4. They would then shoot us with a -1 FFMO DRM and no TEM instead of us getting a +2 wall TEM, that's a 3 point swing on the DR! If they didn't claim WA in the RPh, then we could claim it when we move into Q4—and now we get the +2 Wall TEM. If the enemy were in hex L4 instead, then they would automatically have WA without having to claim it or put down a WA counter.

You can also lose the Wall Advantage by using the TEM of something else in your hex (B9.31). For example, suppose that an enemy unit in R4 held Wall Advantage over us, which denies us the use of the +1 TEM for the hedge. If we fired at it and it chose to use the +3 TEM of the building instead of the +1 TEM of the hedge to resolve that attack, it would immediately lose the Wall Advantage to us.

Similarly, suppose that a German unit in Q3 had the Wall Advantage over us when some other GIs fired at them from P3. If the German chose to use the TEM of the building, they would lose the Wall Advantage to us. If they wanted to retain the Wall Advantage, they would be considered in Open Ground with a 0 TEM while resolving that attack. Claiming or forfeiting Wall Advantage never has any effect on LOS except Bocage. For example, the German in Q3 could still be fired on from Q2 even though they were claiming Wall Advantage against fire from Q4. What TEM are they using? "They're dropping WA and claiming the building TEM. I guess they are worried about those guys in P3." Then we get Wall Advantage, and our friends in P3 are not committed to the attack. They can move on to better things.

You can also qualify for a hexside TEM if the fire passes through the length of a hexside (B9.3). For example, if we were to fire at a target in R2, it would get a TEM of +2 for the wall between Q3 and R3. Wall Advantage does not apply to this situation; it only applies if two enemy units are adjacent on both sides of a wall or hedge. So in this case each unit would receive the beneficial TEM when fired upon by the other.

There is a lot of terrain that gives no protection to units therein but does Hinder fire that passes through. . . I can see that a lot of you chowderheads haven't got the slightest idea of what I'm talking about. I'll show you what I mean. Move to the wooden building in Y9.

■ Looking around us you see a lot of different terrain types. Y10 is a road hex. Does it give you any cover? "No, Drill Sergeant." Right. It is just like Open Ground. You can also fire right through a road hex with no problem, just like Open Ground. Z9 contains a stone building. What protection does it give you? "A stone building has a TEM of +3, Drill Sergeant." Buildings stop bullets very effectively, so that an enemy unit on the other side of a building—in AA10 for example—cannot be affected by your fire at all. Similarly, woods stop all fire through them, even though they only give units in them a TEM of +1 . Can you fire at a unit in Y7? "No, Drill Sergeant." Why not? "The woods block fire, Drill Sergeant."

There is grain in Z8, brush in X8, and orchard in X9. They all have a TEM of 0, giving no protection to targets therein against your fire, but they all Hinder fire through these hexes at targets beyond them. The Hindrance in each case is a +1 DRM added to your IFT DR for each Hindrance hex that your fire passes through on its way to the target (A6.7). You don't count any Hindrance in your own hex or in the target's hex—just the hexes in between except for SMOKE.

So far we have come across two types of DRM. What are they? "TEM and Hindrance modifiers, Drill Sergeant." From your position in Y9, what is the DRM of a target in Z8? "Zero, Drill Sergeant." In AA8? " +1, Drill Sergeant." BB7? " +2, Drill Sergeant." CC7? " +3, Drill Sergeant." Wrong. It is only +2, one for the Hindrance in Z8 and another for the Hindrance in AA8. BB7 is Open Ground and has no Hindrance at all. In fact, every hex along the road from BB7 to GG5 only has a total DRM of +2.

What is the DRM of a target in X9? "Zero, Drill Sergeant." Good. What about W10? " +1, Drill Sergeant." V10? " +1, Drill Sergeant." No, you forgot the TEM of the woods. A target in V10 has a TEM of +1 for the woods and a Hindrance of +1 due to the orchard in X9 for a total DRM of +2. I'll give you another chance. X8? "Zero, Drill Sergeant." W8? "+1, Drill Sergeant." V7? "+3, Drill Sergeant." Why +3? "+1 for the woods and +2 for Hindrance due to the brush in X8 and W8, Drill Sergeant." Right. The path has no effect on fire. Like a road, it affects movement but not fire. Now move to M9.

■ You can see across the water to L9. The pond has no effect on fire. What is the total DRM if you fire into L9? "+1, Drill Sergeant." Right. How about N8? "Zero, Drill Sergeant." O8? "+1, Drill Sergeant." P7? "+3, Drill Sergeant." Nope. Hindrances only apply if you are firing through them, not over them. When you fire at a higher level, such as up to P7, you fire over the grain fields in N8 and O8. The DRM equals only the TEM of the woods, or the TEM for Height Advantage. What is the DRM of a target in O10? "+2, Drill Sergeant." Right. Only the TEM of the wooden building applies. Suppose the target in O10 fired at us? What DRM would we have? "+1, Drill Sergeant." Right. Only woods TEM applies.

Let's move on to L8. We've been here before. You can see along the pond hexside to M10. What is the DRM for a target in M10? "+1, Drill Sergeant." What about a target in L4? "+2, Drill Sergeant." How do you figure that? "+1 for the Hindrance of the orchard in L7 and +1 for the hedge." Outstanding. Now let's go to G7.



Look at the bridge adjacent to us in F6. Firing at a target with your LOS traced along the road, the bridge is treated as Open Ground. What DRM would we have if we fired at a target on the bridge? "Zero, Drill Sergeant." Past the bridge in E6 or D5? "Zero, Drill Sergeant." In C5? "+1, Drill Sergeant, for Height Advantage." Gullies also have no effect on firing except that it's hard to see a unit in a gully. You can fire right into the gully in G6 because we are ADJACENT to it. The target is as vulnerable as if it were in Open Ground. What DRM would it have? "Zero, Drill Sergeant." Right. Let's assume our next target is in Crest status. Crest status bestows a +2 TEM (the same as entrenchments) to any Direct Fire from a position that does not have a LOS INTO the Depression, or that is not traced through one of the protective Crest hexsides. What if the target were in Crest status on the G6-G7 hexside? "Zero, Drill Sergeant, because we are ADJACENT and therefore have a LOS INTO the Depression." Good. What if we were in G8 instead? "+2, Drill Sergeant, because we no longer have a LOS INTO G6." What if the Crest target was centered on hexside G6-G5? "Zero, Drill Sergeant, because our LOS does not cross a Crest hexside." Outstanding. That's enough on Crest status. How about a target on the other side of the gully in the woods in G5? "+1, Drill Sergeant." Good. Only the woods af-

© 2005 Multi-Man Publishing, LLC



fects your fire—not the gully. You can also fire into the gully, below the bridge in F6, with a DRM of zero (B6.2).

Now move to the woods in F7. From here, fire against a target on the bridge would be partially blocked by the sides of the bridge depiction. The target would have a TEM of +1, which it wouldn't have for fire along the road from G7 or E6. Also, the bridge can Hinder fire that is not traced along the road, as if the bridge were grain or brush. What is the DRM of a target in F6? "+1, Drill Sergeant." F5? "+1, Drill Sergeant." F4? "+3, Drill Sergeant." Good. Why? "TEM of +1 for the woods, Hindrance of +1 for the bridge, and a Hindrance of +1 for the brush." Outstanding.

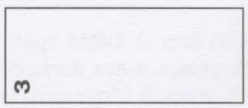
Let's move onto the bridge, which we have to do via G7. Remember? A unit below us in the gully is safe from our fire since we can't see it and vice versa. We can fire INTO the gully in G6 or E7 with a 0 DRM. If targets IN the gully fired back at us, we would get a DRM of +1, from either Height Advantage (B10.31) or the bridge. Exit the bridge via E6 and go through the brush and into the woods in G5.

From here we can see down INTO the gully in H4, H5 and G6. What DRM would targets IN any of those hexes have? "Zero, Drill Sergeant." Right. What about a target in I4? "Zero, Drill Sergeant." No. Even though a unit in H4 is IN the gully, the brush in the hex is both IN the gully and at its Crest status level (B19.21). Since we are in a valley, the brush exists both at level -1 and -2 in H4. It thus Hinders our fire through H4 and the target in I4 would have a DRM of +1 due to the Hindrance caused by the brush.

From our position, J3 has both a TEM of +1 for fire into the crag hex and a Hindrance of +1 for fire traced through the brush hex. If we fire at a target in J3, what DRM would it have? "+2, Drill Sergeant." Right—+1 for the brush Hindrance and +1 for the Crag TEM . How about K3? "+2, Drill Sergeant." L2? "+3, Drill Sergeant." Outstanding.

Suppose you fire at a target in J2. What DRM would it have? "+3, Drill Sergeant." Right. The gully doesn't affect your fire, and the brush Hindrance doesn't apply since the target is above us on level 0. The cliff hexside doesn't affect fire except that the uphill unit gets Height Advantage. What would be the DRM if you fired at a unit in I2? "+1, Drill Sergeant, for Height Advantage." Good. What if that unit fired back at you? "We'd have a DRM of +1, Drill Sergeant." Right. The cliff doesn't affect Small Arms fire at all from the top of the cliff.

Fall out for chow and assemble at 3X3. DISMISSED.



■ FALL IN! Let's review some of the lessons from this morning. What are the two types of DRM encountered thus far? "TEM and Hindrance, Drill Sergeant." What causes TEM? "Terrain in the target hex, Drill Sergeant." What causes Hindrance? "Terrain between the firer and the target, Drill Sergeant." What are the three ranges at which you can fire? "Long Range, Normal Range, and Point Blank Fire, Drill Sergeant." What are their respective effects on your FP? "Halved, normal, and doubled, Drill Sergeant." There is yet another range category which we have not yet discussed. It is called *Triple Point Blank Fire (TPBF) (A7.21)* and results in tripled FP against targets in the same Location as the firer. It is rather rare—who can tell me why? "Drill Sergeant, I thought you weren't allowed to enter a Location containing an enemy unit in the MPh, and if you don't enter such a Location until the *Advance Phase (APh)* you would be in Melee before you could actually fire on the IFT." You've seen combat in the old game, haven't you? Well, you're right for the most part. However, there are occasions where certain units can enter an enemy-occupied Location in the MPh, and when it occurs the DEFENDER has no choice; he must use triple FP against the entering units (A8.312). If the DEFENDING unit has already used its First Fire capability, it must use Subsequent First Fire which would still be tripled (A8.3) against the moving enemy in its hex, but would then also be halved for using Subsequent First Fire. Briefly, Subsequent First Fire allows a DEFENDING unit that has already fired and is marked by a First Fire counter, to fire again at a moving target with half its FP—provided it selects a target which is within its Normal Range and no farther away than the closest Known enemy unit. If the defending unit has already used Subsequent First Fire, it must instead use *Final Protective Fire (FPF)* against the moving unit. FPF is the equivalent of Subsequent First Fire except that it can only be used against ADJACENT or same-hex moving units, and its resolution DR also serves as a NMC against the firer after resolving fire against the target. A unit using FPF is being pressed to the breaking point—and may do more damage to itself than to the enemy. "Drill Sergeant, can the ATTACKER ever use TPBF?" Yes, sort of. If he is not broken by the DEFENDER's TPBF First Fire/Subsequent First Fire/FPF, he can return fire with TPBF but it is always halved for taking place in the *Advancing Fire Phase (AFPh)*—but that's another lesson.

Shellholes are no Hindrance to fire, but they do have a TEM of +1 for units in the shellholes. If units are moving quickly through a shellhole hex paying only one MF and not entering the shellholes, they are treated as being in Open Ground. What is the DRM of a target in X2? "+1, Drill Sergeant." X1? "+1, Drill Sergeant." Y3? "+1, Drill Sergeant." Z2? "+1, Drill Sergeant." Y2? "+1, Drill Sergeant." What?! "Zero, Drill Sergeant." That's better—now give me fifty!

There are a number of other factors that affect fire in addition to range and terrain. One is pinning. How does a unit become pinned? "By failing a PTC, Drill Sergeant, or by passing a MC by rolling exactly equal to the unit's morale." Outstanding. Being pinned is not a disaster, but it can lead to one. Among other things, it halves your FP. This is in addition to halving for other factors such as Long Range.



Suppose that you are under fire and become pinned. You are marked with a Pin counter. What would your basic FP be? "3 1/2 Drill Sergeant." What FP would you have at Long Range? "1 3/4, Drill Sergeant." With Point Blank Fire? "7, Drill Sergeant." "What good are the fractions, Drill Sergeant? Why don't we just drop fractions?" Suppose that you're combining FP with a pinned 3-3-7 HS at Long Range. The HS would have three FP, halved to 1 1/2 for being pinned, and halved again to 3/4 for Long Range Fire. That, added to the 1 3/4 of the squad, equals 2 1/2 FP and allows you to use the 2 column of the IFT. If you dropped fractions, you would only be able to use the 1 FP column.

What other effect that we've learned about can reduce FP? "Well, if you Double Time us up that hill again I'll scarcely be able to hold my rifle—let alone aim it, Drill Sergeant." Right. CX (A4.51) adds a +1 DRM to the attack of all units it affects for as long as they tote the CX marker around. It doesn't reduce your FP, but it certainly reduces its effect. Pinning, concealment, Cowering, Hindrance, CX, and the TEM that we have encountered so far all reduce the effectiveness of FP. We'll talk about concealment (A12) and cowering (A7.9) later.

© 2005 Multi-Man Publishing, LLC



Rifle Range

Leadership is an important factor that increases the effectiveness of your FP. You have seen how a leader can speed up a squad's movement. A leader can also make a unit's attack more effective as I'll now explain.

The first number on a leader's counter is his morale. The second number is his leadership, which can be used as a DRM for attacks. Not all leaders benefit an attack. Normally, leadership DRM range from +1 to -3 . A zero-DRM leader does not modify an attack but is still useful in directing attacks to avoid cowering. A leadership DRM of -1, -2, or -3 improves an attack that the leader directs. A leader with a leadership DRM of +1 can actually lessen an attack's effectiveness, but can still prevent cowering.

To affect an attack, the leader must be in the same Location (i.e., generally speaking, the same hex and the same level within that hex) as the unit it is going to direct. A leader can direct the fire of all units in its Location, but only if they all fire together at the same target. Using the leader to direct an attack is optional (even a 6+1 leader; A10.72), just as the act of firing is optional. Make no mistake about it however, a leader directing an attack is assumed to be firing for all rules purposes. If the leader directs the attack, his leadership is added as a DRM to the attack DR, and he is restricted in his other activities as if he had fired.

I am an 8-1 leader. If I direct your fire by pointing out targets in the hex and politely encouraging you to use your weapons, your fire is more effective and you subtract one from your attack DR. This can neutralize the effect of woods or hedges, reduce the protection of a building, and make Open Ground even more dangerous. However, I can't do this if I am pinned or broken (A7.831, A10.7).



Connerski! How much FP do you have against that target in X1? "What target, Drill Sergeant? All I see is woods." That's right, but any terrain capable of concealing an enemy (i.e., Concealment Terrain; A12.12) can be a target if it is in your LOS. Suppose that woods hex contains hidden enemy units (A12.3)—are you going to wait for them to shoot you to see if they are there? If you have reason to suspect the presence of enemy units in a Location, you can fire at it with halved FP in an attempt to reveal them. If your halved FP attack results in a PTC result or better on the IFT, any hidden/concealed units therein are revealed. "But how do we know when and where to suspect a concealed enemy?" Usually, they do you a favor by wearing a "?" counter, which means they may or may not be there (A12.11). But hidden units could be in any Concealment Terrain if so allowed by *Scenario Special Rule (SSR)* or during a night action (E1.2). That's a thing that no Squad Leader knows for certain, but the best ones develop a sixth sense about. Now. . . how many FP factors can you exert on X1? "$3^1/_2$ with a +1 TEM which is negated by your leadership, Drill Sergeant."

Another consideration for determining FP is Cowering (A7.9). As hard as it is to believe that any of you stalwart lads would freeze under fire, the fact remains that statistics tell us that it happens to a majority of troops under fire. Cowering occurs whenever the Original—that is, face-value—IFT DR results in Doubles, unless the attack is directed by a leader. There are a number of other exceptions which you'll learn later but for the time being just remember that whenever you Cower your FP column on the IFT is reduced to the next column on the left—unless you're Inexperienced in which case you lose two columns on the IFT. So, if you Cower, what will your FP be reduced to in an otherwise normal attack? "4, Drill Sergeant." More importantly, the Brass has decreed that any unit that cowers, as well as all of its SW, is automatically marked with a Prep Fire or Final Fire counter as applicable. This means that cowering also results in loss of Multiple Rate of Fire and Subsequent First Fire.

Up until now, everything you've learned about DRM and FP has been applicable to all fire conducted on the IFT, regardless of phase. However, there are three fire phases in each Player Turn and each of them has rules applicable only to that phase. Those phases are the *Prep Fire Phase (PFPh), Defensive Fire Phase (DFPh)* including both First Fire (which actually occurs during the opponent's MPh) and Final Fire, and the AFPh. One of the basic rules to remember is that all fire occurring in the AFPh is halved—even if the firer has done nothing else in that Game Turn (A7.24). The only exception to this is if the ATTACKER declares Opportunity Fire (A7.25) in the PFPh, which allows him to fire in the AFPh at full strength but not at all in the PFPh nor may he move in the MPh.

However, units with an underlined FP factor—such as you—are equipped with automatic or semi-automatic weapons which allow you to use Assault Fire (A7.36) within Normal Range. A unit using Assault Fire in the AFPh may, after all other modifications, add one to its FP and round fractions up. So your FP in the AFPh is 5 (7 [FP] divided by 2 [AFPh] = $3^1/_2$ + 1 [Assault Fire] = $4^1/_2$ (FRU [Assault Fire]) = 5.)





Two of the most important DRM (FFNAM & FFMO) deal with the target's movement status and therefore apply only during First Fire (A4.6). A unit that fires during First Fire (A8.1) is marked with a purple-on-white First Fire counter until the DFPh is over. Should that unit fire again during First Fire by using Subsequent First Fire, the First Fire counter is flipped over to its Final Fire side. First Fire affects only moving units (A8.1); therefore those DRM—as well as the First Fire attacks themselves—do not apply to non-moving units in the same target Location at the moment of attack. The other portion of the DFPh occurs after the opponent's MPh has ended and is referred to as Final Fire. The advantage of waiting to use Final Fire is that the attack can affect all the enemy occupants of the target Location—not just moving units. A unit that has already used First Fire, as signified by the First Fire counter on top of it, cannot use Final Fire except against adjacent or same-hex targets, and even then has its FP halved (prior to Point Blank Fire doubling/tripling). A unit that is already marked with a Final Fire counter cannot fire at all in Final Fire, except as FPF which is dangerous to both the firer (A8.31) and target. And remember, FPF can be made mandatory by an enemy able to enter the DEFENDER's Location during the MPh. A unit that fires in any capacity during Final Fire is marked with a Final Fire counter which remains until the end of the DFPh.

First Fire Non-Assault Movement (FFNAM) is a -1 DRM applicable to each moving unit during its MPh unless it has declared the use of Assault Movement for that move. Assault Movement is a declared one-Location move that requires less than a unit's full, non-CX, MF allotment. Any other form of movement assumes some form of prolonged erect posture which makes a better target.

First Fire Movement in the Open (FFMO) is a -1 DRM applicable during its MPh to each moving unit that enters an Open Ground hex and cannot claim some form of protective TEM or LOS Hindrance DRM. So, as you can see, multi-hex movement into an Open Ground hex could be subject to a combined -2 FFNAM/FFMO DRM which is sure to ruin your day. Perhaps now you better understand the dangers of Bypass.

This probably leaves you with the impression that any attack with a FFNAM/FFMO DRM is the best possible. Usually true, but not always. Let's move to M7 and assume you are now a 3-3-

© 2005 Multi-Man Publishing, LLC



7 HS with no leadership. Assume that an enemy unit has just moved from N4 to O5 without using Assault Movement. Because we have a clear LOS from M7 to the entire hexside crossed by that moving unit we can declare a Snap Shot (A8.15). Snap shots are conducted with half FP, and no FFMO/FFNAM DRM apply to them, but neither does the TEM of the hex moved into. A regular attack on O5, using the -1 FFNAM DRM on the 2 FP column with a DR of 5, would result in No Effect due to the +3 TEM of the building. However, the same DR on a Snap Shot attack using the 1 FP column results in a PTC because there are no applicable DRM. There are a few exceptions to the rule about terrain in the target hex not applying to a Snap Shot. SMOKE in the target hex is applicable to a Snap Shot, as is the TEM of a wall or hedge of the target hex crossed by the fire on the way to the target hexside. For example, a unit in O6 entering P5 would be subject to a Snap Shot from M7 with a +2 DRM for the wall. However, just crossing a wall/hedge hexside does not add that TEM to the Snap Shot. For example, a unit entering P6 from P7 would not be subject to a TEM for a Snap Shot from M7. There is also the matter of whether you should withhold your First Fire altogether, ignoring the temptation of those negative DRM, so as to be able to fire with full FP in Final Fire against all the enemy occupants of a target Location rather than against just moving units which seldom move together in groups. But the answer to that question always depends on the situation, and requires far more intuitive skill gained from combat experience than we can hope to instill here.

Back on the truck. We'll test what you've learned on the Combat Walk-Through Course. Assemble on the road in 24Y1. Squad DISMISSED.

24

■ TEN HUT!

At ease. This course is very simple because you will do all the firing—nobody will be shooting at you—unless one of you points his weapon at me. We will proceed down this road one hex at a time. I will call out our present position, fire phase, your Original DR, and the Location of a simulated target which has just popped up. You will respond by instantly calling out your total FP against that target, any applicable DRM, and the result of that fire. I will be directing your fire unless stated otherwise. There will be a total of 21 targets. You can make Expert with a score of 19 or more, Sharpshooter with 17 or 18, and Marksman with 15 or 16. If you miss more than six targets, you have failed to qualify and will be dropped back to the next cycle for retraining. Keep your IFT at the ready. (Those of you at home should cover the answerline—overprinted in gray—with a bookmark until you're ready to answer.) Any questions? Good, let's begin.

Y2, PFPh, DR:2, I'm pinned. Target: Z1.

"14 FP, +2, 3MC"

Nervous, aren't you? You'd better be.. . because you butchered that shot. Your FP is 14 due to PBF, but I'm pinned so I don't direct your attack which, with an Original DR of 2, means that you Cowered (Doubles) leaving you with only 8 FP (down one column from 12). Your total DRM is only +1 for the Woods TEM—you can't claim Height Advantage in addition to another beneficial DRM. The result is a K/2—better than you had assumed. Try again—and this time I won't be pinned.

X2, First Fire, DR: 12. Target is moving into X2 without using Assault Movement.

"21 FP, -3, 1MC"

Good! You recognized TPBF plus the application of both FFMO and FFNAM plus my leadership DRM. What else can you tell me about what just happened? "Well, we better hope the target failed that 1MC, because we sure failed our NMC caused by the FPF and have now either broken or suffered Casualty Reduction due to that Casualty MC—depending on whether a Random Selection dr picks you/us as the Casualty Reduction." Wrong! Had it been a FPF situation, your FP would have been halved after tripling, resulting in only $10^1/_2$ FP. We were not marked with a Final Fire counter so our attack was not subject to FPF penalties. Had it been, your analysis would have been correct except that with only $10^1/_2$ FP, the result to the enemy would have only been a PTC.

W2, AFPh, DR: 7. Target: U1.

"5 FP, 0, PTC"

Correct on all counts. FP is halved due to AFPh Fire but increased to five by Assault Fire, and a +1 Height Advantage DRM applies which is nullified by my leadership DRM.

V2, PFPh, DR: 9. Target: Q4.

"$3^1/_2$ FP, -1, -"

Correct. Long Range Fire is halved and my -l leadership DRM applies.

U3, Final Fire, DR: 5. Target S4 has entered using Assault Movement.

"7 FP, -1, 2MC"

Outstanding. You didn't fall for the bait. FFMO does not apply because this is Final Fire—not First Fire. Only my leadership DRM applies.

T3, AFPh, DR: 9. Target is concealed in S3.

"5 FP, +1, -"

Good. Your FP is halved twice by AFPh Fire and Concealment, but is then doubled for PBF before adding one FP and rounding fractions up for Assault Fire. The +2 DRM for the wooden building more than counteracts my -1 leadership DRM.

S4, PFPh, DR: 5. Target: Q3.

© 2005 Multi-Man Publishing, LLC

"7 FP, +1, 1MC"

Right again. The DEFENDER cannot have both the wall and building TEM and my leadership DRM negates only part of the +2 TEM.

R3, First Fire, DR: 3. Target is Dashing into P2 from P4.

"3½ FP, -3, 2KIA"

Wrong. Your FP is halved against a Dashing unit, but the Wall hexspine Q4-Q3 still adds a +2 DRM to your fire (B9.32) and cancels any FFMO DRM because the target is no longer considered in Open Ground (A4.61). The +2 TEM of the wall negates my -1 leadership DRM and the -1 FFNAM DRM, for a total DRM of 0 resulting in a 1MC on the 2 FP column. Alternatively, you could have made a Snap Shot at the P3-P4 hexside, which would have resulted in a 1 FP attack—due to being halved once for the Snap Shot and again for the Dash—and a -1 DRM for my leadership. This too would have resulted in a 1MC.

Q4, AFPh, DR: 5. Target is U4, first level.

"5 FP, +2, PTC"

Good. AFPh Fire and Assault Fire yield five FP, and the +3 TEM of the stone building is partially negated by my leadership. "Drill Sergeant, since this is the AFPh and Pin markers are removed at the end of the Player Turn before the DEFENDER can fire again anyway, is there any reason for him to actually take a PTC or can it be ignored?" Sometimes it can be ignored, but not if there is a possibility of that PTC causing a Sniper or Booby Trap attack, nor if there is a chance that the ATTACKER will wish to advance into the hex for CC during that Player Turn.

P3, PFPh, DR: 5. Target is concealed in L2.

"3½ FP, +1, PTC"

Good. You added the +1 orchard Hindrance DRM to the +1 woods TEM and deducted my leadership. What special significance does the result of your attack have regardless of the outcome of the PTC? "The target loses its concealment, Drill Sergeant."

O4, First Fire, DR: 3. Target is moving into O5 from P4 without using Assault Movement.

"7 FP, -1, 1KIA"

Outstanding. You could have said: "14 FP, +1, 3MC" but you correctly chose a superior form of attack—the Snap Shot. You'll make Expert with that kind of shooting.

N4, PFPh, DR: 5. Target: O10.

"3½ FP, +1, PTC"

Good. You remembered that terrain Hindrance docs not apply to a different level target. Later you will learn about SMOKE Hindrance (A24.4), which is a different matter altogether.

N5, First Fire, DR: 5. Target is squad Bypassing P5 from O5 to P5-O6-P6.

"7 FP, -3 DRM, 1KIA"

Good. A Bypassing target in an otherwise Open Ground hex always offers a -2 DRM for FFMO/FFNAM. Although firing at a vertex that includes O5, you correctly concluded that you weren't eligible for PBF because the target was actually in P5. Had the target been Bypassing at M5-M6-L5 instead, the +1 TEM of the hedge would have been applicable because you would have been firing down that hexspine.

N6, First Fire, DR: 9. Target is squad Bypassing M5 from L4 to M5-M6-L5

"7 FP, -1 DRM, PTC"

Wrong! You have no attack. You can't see the target because your LOS to the only vertices transited is blocked by the M6 building, while a LOS to the M5 hex center doesn't cross a hexside Bypassed by the unit. You should've waited for the unit to continue its move before firing. Now you've wasted your opportunity. If it's any consolation, you did have the DRM correct for fire against a unit Bypassing a hedge hexside through another hedge hexside (-1 for FFNAM, +1 for the hedge, -1 for my leadership).

M7, AFPh, DR: 7. We are CX and the target is K8.

"5 FP, +2, -"

Good. The CX +1 DRM cancels out my leadership of -1, leaving only the +1 for the orchard Hindrance and the +1 woods TEM. From here on, I won't be directing your fire.

L6, PFPh, DR: 5. Target: R6.

"No attack, Drill Sergeant."

Why? "The hedge at P6-Q6-Q7 vertex blocks my LOS (B9.1), Drill Sergeant."

K7, Final Fire, DR: 5. Target: E6.

"3½ FP, +2 DRM, -"

Good. A +2 DRM applies for Hindrance of the brush in J6 and I7—even though J6 is technically a woods hex—because the LOS crosses the brush depiction and not the woods depiction. Similarly, there is no Hindrance DRM for the bridge because the LOS does not cross the bridge depiction.

J7, AFPh, DR: 5. Target: E6

© 2005 Multi-Man Publishing, LLC

"1¾ FP, +2 DRM, -"

Correct. Although you lost the Hindrance DRM for the brush in J6, you gained one for the bridge because your LOS now does cross the bridge depiction. Your FP is halved twice—once for the AFPh and again for Long Range Fire—and Assault Fire is not applicable at Long Range.

I8, PFPh, DR: 5. Target: E6

"7 FP, 0 DRM, 1MC"

Outstanding! Long Range Fire no longer applies nor does the bridge Hindrance DRM because your LOS is now traced solely through the road depiction.

I9, First Fire, DR: 7. Target is a MMC entering Crest status in E8 from IN E7.

"7 FP, +1 DRM, PTC"

Perfect. You recognized that the +2 TEM of Crest status must apply, because only hexsides E6-F7 and E6-F8 can accommodate Crest status due to the cliffs and Depression hexsides of the other four. You also realized that the -1 DRM for FFNAM must apply because the MMC had to expend four MF to enter Crest status from E7 (two MF to enter the E8 gully, and two more to achieve Crest status), making Assault Movement impossible. It is interesting to note that, were the cliffs not present, your target could have moved into Crest status along hexside E8-D7, you could have applied the FFMO -1 DRM as well because the entrenched TEM would not have been applicable—thereby making E8 an Open Ground hex. The Final DRM in that case would have been -2 (FFMO & FFNAM) rather than +1.

I10, PFPh, DR: 2. Target: G10.

"7 FP, +1, K/2"

Wrong. The +1 DRM for Height Advantage applies, but your FP is reduced to the next column to the left due to Cowering. Remember, I am not directing your fire any more. The correct answer is: 4 FP, +1, 2MC.

Those of you who have qualified with your weapons will learn how to close with and destroy the enemy in Close Combat tomorrow. Report to 3AA7 at 0600. Those of you who missed seven or more targets and failed to qualify, return to the LOS Course for remedial training.

DAY FOUR: CLOSE COMBAT

3

■ TEN HUT!

At ease. Today you will learn to use bayonets, hand grenades, entrenching tools, rocks, and even teeth if necessary to defeat the enemy at close range. We're not talking Point Blank Fire here, or even TPBF. You are literally on top of your enemy—so close that you can smell him—which judging from the lot of you might be quite a few yards away.

First you have to get into the enemy's hex. Can you do this normally in the MPh? "No, Drill Sergeant." That's right; during normal movement (A4.14) you may not enter an enemy-occupied hex. What you have to do is use the MPh to move adjacent to the enemy, survive his fire, and then use the APh (A4.7) to enter the enemy hex. After that comes the *Close Cornball Phase (CCPh)* wherein you resolve things for keeps. No breaking here—you either kill your enemy or you don't. This fighting may continue to the next turn, in which case you and your enemy remain in Melee. In Melee you are too occupied with each other to affect anything else on the battlefield, too closely engaged even to move away. You again attempt to resolve the fight in the next CCPh. A Melee can continue indefinitely, but it often ends real fast.

After all normal movement and firing, broken units have a chance to get away in the *Rout Phase (RtPh)*. Then comes the APh, in which most unbroken, unpinned ATTACKER Infantry units get to move one hex. If they are adjacent to an enemy unit, this one hex advance can be into the enemy unit's Location, causing *Close Combat (CC)*. "Drill Sergeant, does the advance have to be into an enemy unit's hex?" No. It can be to any adjacent, Accessible hex. It can even be into a Location occupied by both friendly and enemy units already in Melee. However, it cannot occur if you are so encumbered by PP that you have no MF remaining, now that the Brass have amended A4.7.

There are other restrictions too. Broken units cannot advance, nor can CX units if the normal MF cost of such entry is four or more MF or all of a unit's non-Double Time MF allotment—whichever is less. Other units advancing into such terrain become CX in the process (A4.72). Units already in Melee are stuck there, barring Withdrawal (A11.2) or Infiltration (A11.22). Units cannot advance where they can't move in the first place. For example, you can't advance across a cliff—at least not without climbing it in the MPh (B11.432).

We are now in 3N4. We can advance to any of the six adjacent hexes. Advance to the wooden building in M5. During the MPh this would cost two MF and you could continue on if you had more MF remaining. In the APh you must stop here. You can't even continue upstairs. Suppose we start our next APh here. Where can we advance? "The six adjacent hexes, Drill Sergeant." Right, but you can also advance upstairs to the first level of M5, or you can stay where you are.



Go to the first level of M2. Where can you advance from here? "The ground floor of M2, the second level of M2, the first level of N1, or the first level of N2, Drill Sergeant." Outstanding. You'll notice that when we go up or down stairs this gray slab beneath us called a level 1 counter will disappear, but if we go to an adjacent hex of the same building at this elevation it will go with us. Modern technology—ain't it wonderful? Be thankful you don't have to cart it around on your backs. Now go to the building in V3—but on your bellies—using only the APh. Let me know how many turns it takes.

■ I see that you all made it. Ten turns is a long time to spend crawling isn't it? That's often the length of an entire game. The APh helps you get where you're going safely, but you can't rely only on it. It's much too slow.

© 2005 Multi-Man Publishing, LLC

Normally you don't pay much attention to movement costs during the APh, but they do become relevant when you advance into Difficult Terrain (A4.72). Difficult Terrain means that it costs four or more MF to advance into a hex, or all of your MF if your MF allotment is less than four—which it can be if you are carrying a lot of equipment or are Inexperienced. Here is an example. What is the MF cost of W3 from our position in V3? "One MF, Drill Sergeant." V4? "Two MF, Drill Sergeant." W4? "Four MF, Drill Sergeant." Which is the Difficult Terrain? "W4, Drill Sergeant. " Right. You can't advance into Difficult Terrain at all if you are already CX. If you are not CX, advancing into Difficult Terrain makes you CX, just as if you had Double Timed during the MPh. If you advance to W4, you become CX. Suppose that you were already CX here in V3. You could still advance to W3, V2, U3, U4 and even V4, but not to W4. Now go get the 60mm mortar that's in the next room. Okay—how many MF do you have available while lugging this mortar around? "Two MF, Drill Sergeant—if you won't assist us." Right—on both counts. So what are your APh capabilities now? "Unchanged, Drill Sergeant, except that now V4 also becomes Difficult Terrain." Good.

For today's training, I have arranged for some of the trainees from B Company to act as a German 4-6-8 squad. They're waiting in V4. To engage in CC, use the APh to enter V4—but leave the mortar here. You won't need it—no Support Weapon (SW) can be used in CC. It's okay the Brass has ruled that a SW can be dropped in the APh/CCPh (A4.43). I'll stay behind. Next, resolve the CC during the CCPh. In CC, you ignore your range and morale. Only FP counts. In this case, your FP is 7 and your opponent's FP is 4. To resolve your CC attack, compare your FP with your opponent's as a ratio, and then reduce it to one of the odds on the Close Combat Table (CCT). 7-4 reduces to $3^1/_2$-2, which is closest to the 3-2 odds listed on the CCT. If between two odds columns, always use the lower one. Beneath the correct odds, you will find the Kill Number for that CC. Use only the black number, which for a 3-2 attack is a 6. Then roll two dice. If you roll more than the Kill Number, there is no effect to your target. If you roll below the number, the target is eliminated. If you roll exactly equal to the Kill Number, the target suffers Casualty Reduction as if it received a K result on the IFT, but without any MC. CC is simpler than firing at a target, and usually more decisive.

Most combat is simultaneous, so regardless of your effect on the target it usually gets to attack you also—completely unaffected by your attack against it. Only after both attacks are resolved are the casualties actually taken. So even if you eliminate the enemy, he still has a chance to eliminate you.

The German 4-6-8 attacks you. What are his odds? "4-7, Drill Sergeant." Right. What column does this reduce to? "2-3" Drill Sergeant." I don't see any such column on the CCT. Which columns is this between? "1-2 and 1-1, Drill Sergeant." Which column does the enemy use? "The lower column, Drill Sergeant." Which is? "1-2, Drill Sergeant. " Finally. What is the Kill Number? "4, Drill Sergeant." What DR does he need to eliminate you? "2 or 3, Drill Sergeant." To miss you? "5 through 12, Drill Sergeant." And if he rolls exactly 4? "We are Reduced to a 3-3-7 HS, Drill Sergeant."



Suppose you both survive CC. You are now in Melee (A11.15), and a red Melee counter is placed on the Location. This means that neither of you may move, fire, advance, or do anything else until the next CCPh. No Infantry may move into the Melee hex normally, since it is occupied by a Known enemy unit. Both sides may fire into it, but that fire (unless it is a Sniper) affects everyone in the Location, friendly and enemy. Since the German squad has a higher morale, the German player may decide to fire into the Location in hopes that you'll break while his own squad remains unbroken. Of course, the opposite can happen, but the odds do favor the German. Suppose he doesn't fire into the Location but instead moves another 4-6-8 to V5. In his APh, that 4-6-8 advances into the Melee. Things look a lot worse for you now. You have three choices. You may attack one of the enemy squads at 3-2 as before. You may attack both of them together at 7-8—that is, 1-2. Or, you may withdraw from Melee (A11.2), but this is risky because you won't get to attack any of the enemy units while they not only get to attack you but may do so with a -2 DRM.

Suppose the German attacks you with both squads; a total FP of 8. That gives them 8-7 odds (1-1). What would they need to get 3-2 odds? "$10^1/_2$, Drill Sergeant." Right—but with eight they only have 1-1. So what is their Kill Number? "5, Drill Sergeant." It is more dangerous than it was against only one squad, but your chance of making it through another Player Turn is still very good.

We know what the odds are if you choose to attack only one enemy squad. Regardless of what you do to your target, the other squad is unaffected. If you attack both enemy squads together, what is your Kill Number? "4, Drill Sergeant." That is a lot worse than a Kill Number of 6, but if you get less than 4 you kill both enemy squads. Of course, if you roll more than 4, both enemy squads are unaffected. If you roll exactly equal to the Kill Number, at least one enemy squad chosen by Random Selection is Reduced to a HS but, unlike a K result on the IFT, no MC are involved.

If you decide to withdraw from Melee, the enemy subtracts two from their CC attack DR against you. In that case, an Original DR of 2-6 eliminates you and a 7 DR Reduces you to a HS. However, if you are not eliminated, you get to escape from the Location. You are placed in an adjacent, Accessible Location of your choice—provided it does not contain an enemy unit. To be Accessible, it must be a Location that you could reach in an APh, so you could not withdraw over a cliff or to a higher or lower level of an adjacent building hex.

Being brave men, you decide to stay and fight it out, and again no units take any losses. Fortunately for you, I am going to advance into the Location during your next APh to save your worthless butts. Normally a leader has no FP but, in CC only, all leaders have a FP of one. A leader can be grouped with any unit, in which case he attacks and defends with that unit, or if he opts to attack alone he must defend alone. If grouped, his leadership applies to any CC attack made by that unit and his FP increases the FP of that unit by one. If he attacks alone, his leadership does not apply at all. If he is grouped with another unit he cannot be attacked alone, but adds his FP to that of the unit he is grouped with in defense. If alone, he is fair game and can be attacked alone and defends with only his own FP of one.

Suppose I attack alone. The Germans could attack me with one squad at 4-1 (Kill Number 9), or use both squads to attack at 8-1 (Kill Number 11). Being rational, I am sticking with you guys and directing your attack. The best the Germans can do against us now is 8-8 (1-1), since I add my one FP to your seven. And now to get 3-2 they need a combined FP of 12.

We can attack one of the enemy squads at 8-4 (2-1) with a -1 DRM due to my leadership. Now you can eliminate an enemy squad with an Original DR of 7 or less, and Reduce it with an Original 8 DR. The Germans decide at this point to withdraw one squad with the other squad staying behind to cover the withdrawal. There is a -2 DRM against the withdrawing unit, but the covering squad adds a +1 DRM, so the net Withdrawal DRM is -1

© 2005 Multi-Man Publishing, LLC

prior to application of my leadership. Each covering unit gives a withdrawing unit a +1 DRM. What options do we have? We can withdraw too, but we won't. We can attack the withdrawing squad, the covering squad, or both. If we attack the covering squad, the odds are again 8-4 (2-1), with a -1 DRM for leadership.

If we attack the withdrawing squad, the odds are still 2-1, but it has a DRM of -1 for leadership, -2 for withdrawing, and +1 for one covering unit. This amounts to a total DRM of -2. The squad is Reduced on an Original 9 DR and eliminated by an Original DR of 8 or less. We can alternatively attack both squads at 8-8 (1-1). There is still a -1 DRM (for leadership) against the covering squad, and a -2 net DRM against the withdrawing squad (my leadership -1 DRM negates the +1 DRM for the covering squad). The Kill Number is 5. Because of the DRM, an Original DR of 5 or less eliminates both squads, 6 eliminates the withdrawing squad and Reduces the covering squad, 7 Reduces the withdrawing squad only, and 8 or more has no effect. Being good guys we'll have a happy ending; we roll a 5 and eliminate them both. This ends the Melee and we are free to move/fire normally in the next Player Turn.

"Drill Sergeant, can a unit withdraw from CC immediately?" If it advances into a Melee already in progress, it may attempt a withdrawal on the same turn. However, on the first turn of CC in a Location, neither side may withdraw. They must survive at least one turn of CC and wait until a Melee marker is placed on the Location before they may withdraw. It is withdrawal from Melee, not from CC.

Suppose that two 6-6-6 squads are in CC with two German 4-6-7 squads. How many ways can the Americans make their attacks? "Three ways Drill Sergeant. Both can attack one German squad, both can attack both German squads, each 6-6-6 can attack one 4-6-7." Good. The Germans have the same options, but worse odds.

"Drill Sergeant, what happens to broken units in CC?" Let's see. Suppose we are in Melee with a 4-6-8. The German player fires into the hex hoping to break us, but he breaks his own squad instead. Broken squads are required to attempt to withdraw from Melee (A11.16). They also have a DRM of -2 for being broken. That unfortunate squad must withdraw with a -2 DRM for being broken, -2 for withdrawing, and a -1 for my leadership. Our Kill Number is 7 since we still have 2-1 odds against it, but with all those DRM an Original DR of 12 Reduces it to a HS and 11 or less eliminates it.

Let's take a different case. Suppose you're part of a force of three 7-4-7 squads in Melee with a 4-6-8. The German fires into the Location, but this time you break. You must withdraw, but you have two squads covering you. Your DRM are -2 for being broken, -2 for withdrawing, and +2 for two covering units. This is a net DRM of -2. The German would attack you at 1-2. His Kill Number is 4, so you are Reduced on an Original DR of 6 and eliminated on an Original DR of 5 or less. Of course, there's a good chance that the German player will ignore you and concentrate his attack on the unbroken squads who by not withdrawing still pose a very real threat to him at 14-4 (3-1) odds.



It is also possible to be pinned during CC. This can occur due to fire into the Location while in Melee, or due to an advance into CC against a pinned enemy unit. You are in V4 and a pinned enemy 4-6-7 is in V5. You advance into its Location and thereby cause CC. Its attack FP is halved, but this doesn't apply to attacks against it. You still attack at 7-4 (3-2), but the FP of the 4-6-7 is halved when it attacks you so it attacks you at 2-7 (1-4) on the CCT. Its Kill Number is only 3, not 4, which it would have been if not pinned. A unit that becomes pinned in Melee cannot withdraw, just as it can't move or advance.



Another condition that affects CC is CX. Tired units do not perform well in CC, either in attack or on defense. There is a -1 DRM to a CC attack against a CX unit, and an attack that includes a CX unit has a +1 DRM. To further show how this works, assume you're in W4 while a German 4-6-7 advances from V3 and another one advances from V4. The squad from V3 becomes CX due to its advance uphill into the woods, which is an advance into Difficult Terrain. The non-CX squad attacking alone has odds of 4-7 (1-2) with a Kill Number of 4. Both squads attacking together have odds of 8-7 (1-1), with a Kill Number of 5. The DRM for CX applies, and consequently the attack has the same chance of success if the CX squad were not involved. In this case, the German player would probably be better advised to find another use for his squad from V3. The two squads cannot attack separately because all units attacking the same target have their FP added together (A11.12).

You can attack either the non-CX squad at 7-4 (3-2), or you can make the same attack against the CX squad but with a -1 DRM. If you attack both squads together, the -1 DRM only applies to the CX squad. Your odds would be 7-8 (1-2) and you would eliminate both squads with an Original DR of 3 or less, eliminate the CX squad and Reduce the non-CX squad with an Original DR of 4, Reduce the CX squad with an Original DR of 5, and leave them both unaffected with an Original DR of 6 or more.



When advancing into CC, it is possible to creep up on your enemy and catch him unaware. It is also possible to blunder into a trap. Both situations are referred to as an Ambush (A11.4). Ambush can only occur when entering an enemy Location during the APh to cause CC, not when entering a Location that already has a Melee in progress. It can only occur in woods or in buildings (or lumberyards), or if at least one unit on either side is concealed. Units that are concealed are placed under a "?" counter. This means that the opponent cannot examine a stack to see its contents. Such units are considered unknown to enemy units on the mapboard. A stack can have both concealed and unconcealed units in the same Location. In this case, only the concealed units are placed under the "?" counter.

Determining if an Ambush occurs is easy. If an Ambush is possible, each player makes a die roll (dr), trying to roll lower than his opponent. If your Final dr—that is, after all modifications—is at least three less than your opponent's final dr, you have Ambush advantage. However, there are modifiers to the Ambush dr. Conditions that make it easier for you to be ambushed include having units that are CX, pinned, or broken; add +1 to your dr for each condition that applies to one or more of your involved units. If you have one or more concealed units, you have a better chance because a concealed unit earns a -2 drm to the Ambush dr. Unless a leader is by himself, his leadership also modifies the Ambush dr.

Units can also be defined as being Stealthy or Lax. Stealthy troops are good at slipping silently through woods, or from room to room. If you have any stealthy units involved, you subtract one from your dr. On the other hand, Lax troops are not as adept at silent movement. They may be sleepy from partying all night, or they may still be partying, or they may just be Inexperienced. If you have a Lax unit involved, add +1 to your Ambush dr.

Let's check out the Ambush determination process. Move to the woods in AA7. There is an adjacent German 4-6-7 in AA8. It is your APh so you advance into AA8 to initiate CC. Since AA8 is woods, Ambush can occur. Both players make a dr. There are no

© 2005 Multi-Man Publishing, LLC

modifiers, so both sides have an equal chance of ambushing or being ambushed; approximately one in six. Now suppose you have an 8-1 leader such as myself with you. I modify the dr by -1 and thereby considerably improve your chances of both ambushing the Germans and avoiding being ambushed. It is not necessary to know the exact percentages—common sense will tell you who has the advantage and the dr will decide the matter.

Now suppose you're concealed and stealthy, still with an 8-1 leader, and there are three German 4-6-7 squads in AA8, but one is broken, one is pinned, and one is CX—and they all are Lax. What modifiers do you have? "-4, Drill Sergeant." How do you figure that? "-2 for concealment, -1 for Stealth and -1 for leadership, Drill Sergeant." Very good. How about the Germans? "They have an Ambush modifier of +4, Drill Sergeant. Their dr is modified by +1 for each condition: broken, pinned, CX, and Lax." Outstanding. What is our worst possible Final dr? "Two, Drill Sergeant." And the German's best possible Final dr? "Five, Drill Sergeant." So in this case we automatically Ambush the Germans regardless of the respective dr.

"Drill Sergeant, what good is an Ambush?" Plenty. We, as the ambushing force, can immediately withdraw from CC before it starts (A11.41) to any Accessible Location not occupied by the enemy. "Drill Sergeant, could we withdraw even if pinned?" No. Ambush withdrawal is just like withdrawal from Melee except that it occurs before combat is resolved in the Location. In fact, some ambushing units may withdraw while others stay to fight it out. Another advantage is that the ambushing force makes its attacks first and the enemy is allowed to attack back only with the survivors. This is an obvious exception to the normal resolution of simultaneous CC, and is referred to as Sequential CC. In this case, we wish to attack just one squad—the one that is CX—at 2-1 (actually 8-4). We get a -1 DRM due to Ambush which, with the DRM for leadership and for a CX target, gives us a -3 DRM. The squad is eliminated on an Original DR of 9 or less, and Reduced on an Original 10 DR. The CC DR is a 7 so the CX squad is eliminated. Now the Germans can only attack back with the pinned squad, which attacks at half strength and with a DRM of +1 because it was ambushed. Like CX, Ambush works both ways. The attack is 2-8 (1-4). With the +1 DRM for being Ambushed, it needs to roll an Original 2 to cause casualties. It misses.

At the end of the first turn of CC, the ambushing force has another chance for a free withdrawal from CC. We can use this to go back from where we came or to "*withdraw*" to the other side of the enemy to penetrate their lines. If the ambushers do not withdraw, the survivors are in Melee normally and there are no further Ambush advantages, nor is Ambush status resolved again for this Location in the next CCPh.

Remember that I said we were concealed. You normally lose concealment when you attack in CC, but if you Ambush you can conceivably retain the concealment of your attacking units. If your attack eliminates all the enemy units it attacks—not necessarily all the enemy units in the Location—your attackers remain concealed. If you're ambushed despite your concealment, you immediately lose that concealment. If there is no Ambush, you must decide before CC attacks are declared whether you are going to keep your concealment or attack; you can't do both. If you decide to attack, you immediately lose your concealment. Let's try another example.

This time two 6-6-6 squads, both concealed, advance into AA8 which contains only a single 4-6-7. The U.S. Ambush dr modifier is -2 for concealment even though two units are concealed. It takes just one concealed unit to earn the drm, but additional concealed units earn no further DRM. This is true of the other modifiers too. You choose to have just one 6-6-6 attack, so that the other one will retain its concealment. You can only attack at 6-4 (3-2) with the unconcealed squad. The Germans can attack the unconcealed squad at 4-6 (1-2), the concealed squad at 2-6 (1-4), or both at 2-12 (1-6). Its attack is halved if it attacks one or more concealed units even if there are unconcealed targets as well (A11.19).

"Drill Sergeant, why would a unit want to remain concealed in CC if to do so it has to forfeit its ability to attack?" Lots of reasons—most of them involving survival. The most likely benefit though, is that a concealed unit does not enter Melee, and thus can leave the CC Location in its next MPh/APh or fire in a fire phase—including TPBF against all other occupants of its own Location.

Back to Ambush. Suppose you're in the AA7 woods and three German 6-5-8 squads with a 9-2 leader advance into your hex. It looks grim, but luck is with you. Despite their -2 drm for leadership, you Ambush them. This is a good opportunity to withdraw from Ambush prior to combat, perhaps to AA8.

Now let's try some Ambush exercises. A U.S. 9-2 leader and two CX 6-6-6 squads in Y7 advance into the Y8 building, which contains a German 9-1 leader and three Lax 4-4-7 squads. What are the U.S. drm for the Ambush dr? "-1, Drill Sergeant." For the Germans? "Zero, Drill Sergeant." Right. The leadership cancels out the Lax drm. Notice that an Ambush can occur even though the U.S. troops advanced from Open Ground. It is only the terrain in the CC hex that counts.

A U.S. 8-0 leader and 6-6-6 squad in EE10 advance into DD9, which contains a concealed German squad. An Ambush can occur even though the hex contains neither woods nor buildings because there is a concealed unit involved. What are the modifiers to the Ambush dr? "Zero for the U.S. and -2 for the Germans, Drill Sergeant." Correct. One last example and we'll call it a day.

A stealthy 6-6-6 in BB7 advances into CC8 against a Lax 4-6-7 German squad. What are the Ambush drm? "-1 for the U.S. and +1 for the Germans, Drill Sergeant." That would be correct except that no Ambush can take place in Open Ground when neither side is concealed. We can't quit on such a stupid mistake. We'll stay out here until you get it right, so here's another one. And give me fifty while you're thinking about it!

A concealed 6-6-6 in AA7 advances into AA8, which has three 4-6-7 squads, one of which is stealthy but broken, one pinned, and one Inexperienced and CX. What is the Ambush drm for the U.S. player? "-2, Drill Sergeant." For the Germans? "+3, Drill Sergeant. The drm for being broken negates that for being stealthy, the pinned squad gives a +1, Inexperienced troops are always Lax which is another +1, and CX gives another +1." Good. Report to hex 3U3 tomorrow at 0600 for Morale Indoctrination. Squad, DISMISSED.

DAY FIVE: MORALE INDOCTRINATION



■ TEN HUT!

© 2005 Multi-Man Publishing, LLC



At ease. In combat you have to know how to take it as well as dish it out. You have learned to fire at targets; now you will learn how to be the target. This includes taking MC, routing broken units, and rallying them to fight again.

You learned about MC earlier. Let's review what you know. How do you get a MC? "As a result of enemy fire, Drill Sergeant." Is it good to get a MC? "No, Drill Sergeant." Can you get a MC as a result of fire from friendly units? "Yes, Drill Sergeant, if they happen to fire into a Melee we are in." What adds to a MC DR? "The severity of the MC, Drill Sergeant." Very good. What are the possible results of a MC? "You can pass it and be okay, you can fail it and become broken, or you can pass it but become pinned, Drill Sergeant." What if you roll an Original 12 during a MC? "You are Reduced by a Casualty MC, Drill Sergeant." Outstanding.

If there are numerous units taking a MC in a Location, they must each take it one at a time with their own DR. If there are leaders in the Location, they check their morale first, in order from the highest-morale leader to the lowest. For example, with just you maggots and myself here, I would take my MC first. If I passed the MC, I would help you clowns with yours. In a NMC, I break if I roll 9 or more. If I roll 7 or less, I add a -1 to your MC DR so that you break on an Original DR of 9 or more, become pinned on an 8, and are still okay on an Original DR of 7 or less. I cannot use my leadership to help my own MC—only yours. If I roll an 8 on my own MC, I am pinned and my leadership is instantly nullified even though I am not broken. Consequently, I cannot assist you in your MC (A7.831).

Now let's invite a couple of other leaders, an 8-0 and a 7-0, to join us for a MC. I take my MC first, but I cannot help the 8-0 leader since we have the same morale. A leader cannot help another leader who has the same or better morale (A10.22). I can help the 7-0 with his MC, but not the 8-0. The leadership of only one leader may be used. If there were a 9-2 leader in the hex with us, he could apply his leadership to all of us and you would use his -2 leadership instead of my -1. I can apply my leadership to another leader only if he has lower morale, but to any friendly MMC, even if it has the same or higher morale.

If you are in the same Location as a leader, and the leader breaks, it shakes you up. I can just imagine how disturbed you would be if your beloved Sgt. Stahler lost his nerve. After taking any MC caused by the same attack that broke me, you must take a Leader Loss Task Check (LLTC), which is just like a PTC. If you roll more than your Morale Level with two dice, you are pinned. You are unaffected if your DR is equal to or less than your morale. However, there is a catch: you reverse the smitten leader's leadership and add it to the DR. Therefore, if I break, you have to take a PTC and add +1 to the DR. You skip this check if the broken leader has the same or lesser morale than you, or if you are already broken or pinned—even if it could result in a Sniper (A14.1) or Booby Trap attack (B28.9).

If the leader is eliminated instead of just broken, you must take a MC—not merely a PTC. Again, you only take this MC if the leader has higher morale than you. For example, if an 8-1 leader or an 8-0 leader is eliminated, you must take a MC; a 1MC in my case, just a NMC in the case of the 8-0 leader. If the 7-0 leader is eliminated, you do not take a MC, because your morale is the same or higher than his. If you're already broken at the time of my elimination, you don't have to take a MC. Who can tell me why? "Because we hate your guts, Drill Sergeant." No, wise mouth, because your broken Morale Level is an 8, which is equal to my own. Now, give me a hundred!

"Drill Sergeant, what if a leader in our Location is pinned?" That doesn't force you to take any check, it just negates his leadership—even for the same attack that pinned him and will next affect you. "Drill Sergeant, does terrain affect MC or PTC?" No, other than modifying the IFT DR that caused the MC or PTC in the first place. I take that back. TEM are applied as negative DRM to the NMC DR caused by White Phosphorous (A24.31), but the Germans rarely have any of that stuff so they are the ones who have to worry about being on the receiving end.

However, there is more to breaking than just being flipped over to your broken side. That's bad enough, but there are more serious consequences to failing a MC. You've already learned about Casualty MC on an Original DR of 12 (A10.31), and the Reduction of broken units that fail a MC (A10.31). However, there's another possible consequence of breaking for unbroken, non-crew units called Replacement (A19.13). Whenever an unbroken Personnel unit fails a MC by an amount greater than its Experience Level Rating (ELR) (A19.1), that unit is Replaced by a broken unit of the same size but lesser quality. ELR is a number from 0 to 5 which is inherently assigned to all units of a given side in a scenario. The Replacement unit must be of a poorer Class and can contain no FP, Range, Morale, or leadership factor(s) greater than those of the unit it is Replacing. Therefore, if an unbroken German Elite 4-6-8 squad with an ELR of 4 fails a MC by five or more, it is Replaced with a broken First Line 4-6-7. If my ELR is 5, and I fail a MC by 6 or more, I would be Replaced with a broken 8-0 leader counter. Squads with an underlined Morale Factor (A1.23)—such as yourselves—are considered to always have an ELR of 5, and if subject to Replacement, are Replaced with two broken HS of the same Class. So, if you have to take a 2MC and roll an 11 or more (after any applicable leadership modification), you'd be Replaced by two broken Elite 3-3-7 HS—not by a broken 5-4-6 squad. If an unbroken HS with an underlined Morale becomes subject to Replacement, it becomes broken and Disrupted instead. Any questions?

DISRUPT
No:
Nml Rout
Self Rally

"Drill Sergeant, why aren't broken units affected by Replacement?" Broken units that fail a MC are already subject to Casualty Reduction—any further penalty beyond that permanent effect would be too harsh. "Drill Sergeant, what is Disrupted?" Disruption is a special form of broken status which usually occurs to a unit that has failed a MC by more than its ELR but is unable to suffer Replacement—usually because it is already the poorest quality Class of unit of its size and type. It can also occur to a HS with an underlined Morale Level which fails a MC by more than its ELR (A19.12), and due to a variety of lesser special cases we won't discuss here. The main effects of being Disrupted are that the unit cannot Self-Rally while so affected, and its ability to rout is limited to any RtPh in which it is in a Blaze Location, or Water Obstacle, or in Open Ground within the LOS and Normal Range of an enemy unit or ADJACENT to an enemy vehicle—although if ADJACENT to or in the same Location with an enemy Infantry/Cavalry unit the Disrupted unit must surrender to it rather than rout away. A Disrupted unit cannot use Low Crawl, does not prevent enemy movement into or through its Location and remains Disrupted until rallied or captured.

Now you know how to become broken. Frankly, I never thought this group would have any problem learning that—you're natural "*broken*" material if I ever saw any. Nevertheless, being broken is a bummer. Leaders lose their leadership. Broken units are more easily destroyed, since they are Reduced if they fail another MC. They cannot move normally, and cannot advance, fire, or attack in CC. There are just four things that broken units can do: rout, rally, surrender, or die.

Routing occurs after all fire in a turn, but before units advance. In general, broken units must get away from the enemy and seek shelter. Routing is similar to moving since units expend MF

© 2005 Multi-Man Publishing, LLC



while routing. A broken unit must carry any SW it possesses up to its IPC—all others are abandoned (A10.4). Only broken units can rout although an unbroken unpinned leader in the same Location with a broken unit may voluntarily rout with that unit (A10.711). Most unbroken units can break voluntarily and rout (A10.41). "Drill Sergeant, why would a unit want to break?" There are circumstances that call for it. Suppose you're in a burning building and about to be burnt to a crisp, or pinned, alone, and ADJACENT to all the enemy squads in the known world. It might make sense to voluntarily break and rout out of Dodge, rather than wait for the inevitable.

The idea of routing is generally to get back to woods or buildings where the chance of rallying is increased (A10.61)—preferably out of enemy LOS and fire. Broken units are generally forced to rout if ADJACENT to a Known, unbroken, armed enemy unit unless they are held in Melee (A11.16). Broken units in Melee cannot rout in the RtPh, although they are forced to withdraw from Melee during the CCPh. A broken unit in Open Ground in the LOS and Normal Range of a Known, unbroken, armed enemy unit is also generally forced to rout. Being in Open Ground (A10.531) includes being on a hill, on a road, on a bridge, or in a gully—provided there is no Hindrance to the enemy's LOS, nor any TEM (including Height Advantage; A10.531). The enemy unit in question cannot be pinned, CX, broken, or in Melee, and it must have some FP, which excludes non-heroic leaders without SW. You cannot rout toward a Known enemy broken unit or a non-heroic leader without a SW but they don't cause you to have to rout in the first place. Or putting it another way, a broken unit (or a non-heroic leader without a functioning weapon) has no Normal Range, and therefore cannot by itself force a broken enemy unit to rout, nor can it Interdict that broken unit, even if that broken unit is ADJACENT to it.

"Drill Sergeant, what is a Known unit?" A unit is Known if it isn't hidden/concealed and is in your LOS.

Now, assume we're broken in 3U3 and DM (which I'll explain in a minute), and there's a German 4-6-7 squad in the neighborhood. From which hexes could it force us to rout away? What about V3? "Yes, Drill Sergeant." Right. It is ADJACENT to us and we are caught in the open—although if it was concealed/hidden and wished to remain that way it would not affect us. How about T3? "Yes, Drill Sergeant." Right. Even if we had the Wall Advantage, we would still have to rout because the enemy is ADJACENT to us. U4? "Yes, Drill Sergeant." S3? "No, Drill Sergeant." Good. We would have the TEM from the wall protecting us, which makes U3 Non-Open Ground from S3. R1? "Yes, Drill Sergeant." U1? "No, Drill Sergeant." Right, since the grain Hinders LOS and we get a TEM from the hedge. X1? "Yes, Drill Sergeant." W4? "No, Drill Sergeant." Right—we're not even in the LOS of the enemy. BB1? "Yes, Drill Sergeant." Wrong. BB1 is seven hexes away and the Normal Range of a 4-6-7 squad is only six hexes—although if it had a MG we'd need our routing shoes.

You may be able to rout at your option, even if not required to, but only if you're under the effects of Desperation Morale (DM). If you're DM, but not ADJACENT to an enemy nor in the open within Normal Range and LOS of a Known enemy unit, you can either stay where you are or rout toward safer cover. There are a number of reasons for remaining in place, the most common being that there is no safe route by which to rout out of your current position. More often than not, you'll want to rout to a position out of enemy LOS where you can hope to avoid DM status in future Player Turns.

Units become DM when they first break, whether due to enemy fire or voluntarily breaking. They also become DM when they are already broken and are subsequently fired at (A10.62), or when a Known enemy unit becomes ADJACENT to them, or if they start a RtPh in Open Ground in the LOS and Normal Range of a Known enemy unit according to the Brass. DM makes it much harder to rally, but allows a unit to rout. It is removed during the Rally Phase (RPh) unless ADJACENT to a Known enemy unit. DM status can otherwise be voluntarily kept beyond the RPh only if not presently occupying a building/woods/pillbox/trench Location, so that the unit can continue to rout to one in the next RtPh.

All routing units have six MF which cannot be increased by any condition. In addition to paying normal movement costs for entering terrain, routing is governed by a number of additional rules that only apply to routing units.

1. Routing units may not enter a hex ADJACENT to a Known enemy unit unless they are in the process of leaving that Known enemy unit's Location (A10.51). They may not end their rout ADJACENT to a Known unbroken, armed enemy unit. For example, if there were an unbroken, unconcealed enemy 4-6-7 in U4, we could not rout to T3 or V3. On the other hand, if there were 4-6-7 squads in V3 and S4, we could rout to T3 since the unit in S4 was not Known to us. However, once we got there, we couldn't stop because the enemy unit would now be Known. We would have to keep routing, and S3 and T4 are out of the question because they are both ADJACENT to the enemy unit in S4. Any other hex would be subject to Interdiction, thereby making it subject to surrender to the enemy unit in S4 (A20.21). However, if that enemy unit rejects that surrender and eliminates us instead, No Quarter (A20.3) would be invoked and A20.21 would not apply for the rest of the scenario. For the sake of simplicity, we'll consider No Quarter to be in effect for the rest of our training.

2. Routing units may not rout toward a Known enemy unit. This means they may not rout to a hex that decreases their range to such an enemy. For example, if a Known enemy unit were in Z1, five hexes away, we could not rout to V3 which is only four hexes from the enemy even though it is out of LOS of Z1. That same unit, even if broken/Disrupted/unarmed, would also prevent us from routing to V2. However, were it the only enemy unit in LOS, it could not force us to rout because it has no Normal Range while broken or unarmed.

3. Routing units must rout to the nearest building/woods hex—even if using Low Crawl—unless there is no such hex you could legally rout to within six MF (A10.51). "Nearest" is determined by the number of MF it takes to get there. Aside from the extra MF cost to exit an entrenchment that the unit is already in, the extra voluntary cost of entering entrenchments/shellholes (to avoid Interdiction) or leaving wire is not counted in determining whether a building/woods hex is within six MF or is the closest such cover (A10.531). However, if there were an enemy unit in U2, we'd have to rout to V3 at a cost of two MF, rather than T3 which costs three MF because of the wall. In determining the nearest building or woods hex, you may disregard hexes that are the same distance from a Known enemy unit as your currently occupied hex—even if there are no other building/woods hexes within six MF. For example, if there is an enemy unit in X1, you may rout to V3 since that is also three hexes from the enemy, but you may alternatively rout to T1, S3, T3, or T4—all of which are three MF away and farther away from the enemy than V3. You may also disregard other hexes/Locations of the building that you began the RtPh in.

4. Upon reaching a building/woods hex, a routing unit must stop unless either ADJACENT to a Known enemy unit, or able to continue directly into other woods/building hexes only. Assuming the enemy unit in X1, you could rout to T3 and then continue to S3 or T4. You couldn't continue to S4, because that is not a

© 2005 Multi-Man Publishing, LLC



building/woods hex. You must stop in S3 or T4, because you have used five MF and the one remaining MF is not enough to continue to another building/woods hex, although you have the option to go up to the first level of S3. Routing units cannot use Bypass.

5. If you rout through Open Ground in the Normal Range of a Known enemy unit, you can be Interdicted. Interdiction cannot occur in a Location where a positive TEM applies, nor if Hindrance to that Location from the Interdictor's Location will result. The Interdictor cannot be CX, pinned, broken, or in Melee (A10.532). If you are Interdicted, you take a NMC. If you roll less than your Morale Level, you are okay and can continue routing. If you roll exactly equal to your Morale Level, you are pinned and must stop your rout in the Interdiction Location. If you roll higher than your Morale Level, you suffer Casualty Reduction, but any remaining HS may continue routing. An unbroken, friendly leader in your Location can usually add his leadership factor to your DR. "Drill Sergeant, can a unit Interdict you more than once? If more than one unit Interdicts you, do you have to take a NMC for each one?" Yes to the first question, no to the second. Interdiction is resolved per hexes traversed in LOS of an Interdictor, not by number of units capable of Interdicting in such a hex. One unit can Interdict any number of hexes and any number of routing units in each hex, but a routing unit takes only one NMC in each Interdicted hex, regardless of the number of enemy units Interdicting it in that hex (A10.532).

6. To avoid Interdiction, a non-Disrupted routing unit may use Low Crawl (A10.52). This means a rout of only one hex, but is free of Interdiction in that hex. You may not Low Crawl ADJACENT to an enemy unit if you are in the process of leaving that unit's Location.

7. If required to rout and you cannot do so legally, you are eliminated for Failure to Rout—or you might surrender instead. Surrender usually occurs when broken Infantry is forced to rout due to being ADJACENT to Known, Good Order, armed enemy Personnel, but cannot do so without resorting to Low Crawl or being subject to Interdiction (see A20.21 for the exceptions).

Suppose two unconcealed enemy units capable of Interdicting are in T2 and U4. Where is the only hex that you can rout to from our position in 3U3? "V2, Drill Sergeant." Right, but that is Open Ground. What are your choices? "Low Crawl to V2 or be Interdicted in V2, Drill Sergeant. " Good. If you Low Crawl, you end your RtPh in V2, broken, DM, but alive—even if only temporarily. If you rout and are not pinned by Interdiction in V2, you have three options. You can rout to V1, X1, or X3, since they are all an additional three MF away. If you rout to V1, you risk no further Interdiction and since you have two MF left, you can rout on to U1, V0, or W1. If you rout to W1 or X1, you'll suffer Interdiction again in W2 from U4, and you can continue only to X0. If you make it to X3—after being Interdicted again in W3 by the unit in T2—you must stop, since the only building/woods hex adjacent to you is W4. Continuing the rout into W4 would be routing toward the enemy unit in U4, which is not allowed even though that enemy unit is currently out of your LOS. You still remember the enemy's Location from the start of your RtPh. "Drill Sergeant, if continuing the rout from X3 to W4 is not allowed, then why were we able to continue our rout from V1 to U1? Don't both constitute a move toward a Known enemy at the start of the RtPh?" No. When we were routing to U1 from V1, both hexes were two hexes away from the Known enemy at T2—we didn't move closer. Routing from X3 to W4, on the other hand, decreases the range to the enemy in U4 from three hexes to two.

Suppose there are unconcealed enemy units in T2 and W4 instead. You must rout to V3 from U3, since that is the closest building/woods hex and W4 is not in your LOS. When you get there however, you must continue your rout because you discover the unit in W4. You must still rout toward a woods/building hex within six MF of your original position at the start of the RtPh—even though you have only four MF remaining. You cannot rout to W3 or V4 because they are ADJACENT to W4. You also cannot rout to U3 because of the enemy unit in T2. Your options are limited to V2 or U4. You cannot use Low Crawl because you have already routed one hex. If you had chosen Low Crawl originally, you could have gone only one hex in the RtPh—which would have been V3 where you would have been eliminated for Failure to Rout (A10.5). In U4 the stone walls protect you from Interdiction from both T2 and W4, so that is the better choice for continuing your rout with your third MF. You must finish your rout in T4 with the expenditure of your fourth and fifth MF. You cannot rout to V1 via V3-V2 because that would require an expenditure of six MF. Clearly, T4 is the closest available woods/building hex which you can rout to—although in a roundabout way. Had no other woods/building hex been within six MF of your original position (U3), you would have been free of the requirement to move toward the nearest woods/building hex once you reached V3.

Things could be worse. If there are enemy units in T3, V1, and W4, you must rout to V3 from U3 as before, but once there you cannot rout anywhere without being ADJACENT to a Known enemy unit. You are therefore eliminated or captured for Failure to Rout. Remember: once you've chosen to Low Crawl, you cannot change your mind and opt to rout out of a Location that you've just discovered is ADJACENT to a Known, unbroken, armed enemy unit. It's too late—you're a goner.

Now let's suppose the only enemy unit is in T2. You can rout to V3 and continue to W4 which uses all six MF. Then the enemy moves unconcealed 4-6-7 squads into X3, V3, Y6, and S5 in his MPh. Your only rout now is to W8. You can rout to W5 despite moving closer to Y6, because Y6 is not in your LOS until you reach W5. You can then rout along the ridge to W7 and then into the woods at W8 because you're not moving closer to Y6. You're also protected from Interdiction by Height Advantage. You can't rout to U6 or U7 because they're closer to S5 which comes into your LOS when you enter W5. If there's another unconcealed enemy unit in W9, you cannot continue routing because you're out of MF, so you'd be eliminated or captured for ending your RtPh ADJACENT to a Known enemy unit. On the other hand however, you could have chosen to simply Low Crawl to W5, thus ending your RtPh there.

Let's go to the ground floor of M2 for some more examples. Suppose there's an unconcealed enemy unit in L1. You are required to rout because you are ADJACENT to it. You have a lot of options though. You can rout up the stairs to the first or second level of M2, or you can go to N1 or N2, or using the stairs, get to any level of those hexes. You can also rout out of the building altogether because that's the building that you started the RtPh in. Since, if you leave the building, you must still rout to the woods/building nearest your original position, you must rout to N0, L4, or O1. Those three hexes are all four MF away, while M5 is five MF and P1 and P2 are each six MF away.

Suppose that enemy unit is in M1 instead. You cannot rout to L1 or to the ground floor of N1, as both are ADJACENT to the enemy unit. You can rout up the stairs and to the first or second level of N1 since those levels are not directly connected (i.e., ADJACENT) to M1. You can alternatively rout to either of the two upper levels of M2, or to any level of N2. If you choose to disregard this building, you can rout to L4 which is the closest building/woods hex. Since it is four MF away, you can use the remaining MF to rout to M5, or upstairs to level 1 of L4. If neither the grain nor plowed fields are in effect (B15.6), you can in-

© 2005 Multi-Man Publishing, LLC

stead rout to K1, J1, or J2, since they are four MF away also and no closer to the enemy unit.

Let's assume that you rout to the first level of M2. The enemy moves to the ground level of M2, and more unconcealed enemy units move to the ground level of N1 and N2. You can still rout up the stairs to the second level of M2 since that Location is not ADJACENT to the ground floor, or to either of the upper levels of N1 or N2 since there is no stairwell in either of those hexes and consequently they are not ADJACENT to the ground floor. Wherever you rout, you'd better rally fast because you're in real trouble. It won't be long before you run out of places to rout to, or succumb to a Mopping Up operation (A12.153). The advent of the Mopping Up rule in ASL makes routing to upper building levels much less effective; consequently, you should generally avoid climbing stairs when you're broken if you have any other alternative.

Take a break for chow and fall in on the bridge at 24F6. Squad, DISMISSED.

24

■ TEN HUT!

At ease. To stay in practice, we're going to practice more routing before we learn how to rally. Suppose we're broken and there is an enemy 4-6-7 in D5. We have to rout, but since we're on a bridge, we can only move to E6 or G7 (B6.4). We can't rout to E6, because that's toward the enemy unit, so we must rout to G7. We can Low Crawl there and stop, or risk Interdiction and continue to the woods in F7. We'll do the latter, and will assume that we all passed our Interdiction NMC—a big assumption for you bozos.

Now an unconcealed enemy unit moves ADJACENT to us in F8 and the enemy in D5 vanishes. We become DM and must rout. It would be safe to rout INTO the gully in E7 or F6 to get out of the enemy's LOS and avoid Interdiction, but we must rout to the nearest woods or building, which in this case is I6, unfortunately. "Drill Sergeant, we can get to F4 in six MF if we go via G7, F6, E6 and E5. I6 is also six MF away, so don't we have a choice?" Just checking to see if you were awake, and apparently you were only half asleep. Yes, F4 would be a possible choice—except that there is a closer building/woods hex than either F4 or I6. We can reach J8 in five MF without ever shortening the range to the enemy unit. Fortunately, No Quarter is still in effect so we are not subject to surrender and can rout to J8 or Low Crawl to G7.

Let's try another example. You are broken IN F6 beneath the bridge, and the enemy is IN E7. You must rout. You cannot be Interdicted in G6, even though the gully is Open Ground, because there is no LOS between E7 and G6. You could also rout directly to the brush in F5 on your way to the woods in either F4 or G5. You could not be Interdicted in F5 because the brush is not Open Ground and in any case is out of the LOS of the enemy IN E7.

You rout to G5 but our persistent enemy moves to F4 and is aided by another unconcealed enemy unit which moves to H6. You now have but one choice—you must rout to H4. Since you can't reach a woods/building hex with your six MF (A10.51), you can either stop in H4 or continue routing to H3, I4, or I5. You don't have to go to I4 or I5 in order to get to J4. Although J4 is the closest available building/woods hex it is more than six MF away and therefore does not have to be the goal of the rout. You choose H3. The enemy units move to G4 and I4 in their next MPh, so in your RtPh you rout to H2. The enemy in T4 then moves INTO H3, but now you don't have to rout because you're not in its LOS, even though adjacent. The enemy unit in G4 disappears, but another unconcealed enemy unit appears adjacent to you in 12, forcing you to rout because it has a LOS INTO the H2 gully and you're m Open Ground. You must rout toward the woods in F4, which is the closest building/woods hex (five MF). You can enter G3 even though it is ADJACENT to the enemy in H3 because they are not Known to you until you enter G3. You don't Low Crawl because it would leave you ADJACENT to an enemy unit at the end of the RtPh. Therefore, you rout to F4, subject to Interdiction from I2 in both G3 and F3.

Suppose you're broken in H1 with unconcealed enemy units in G1 and I2. You can still rout to H2. It is not ADJACENT to I2 in the sense that a unit cannot move or advance directly from I2 to H2 because of the cliff. You can stop there via Low Crawl. Any continued Rout would risk Interdiction in H2 and elsewhere.

Let's check out the view from AA7 while still broken. An unconcealed enemy unit appears in Z6 and forces you to rout. The closest hexes you can rout to are the building in DD5 and the woods in CC9, both of which are 4'f2 MF away. Y8, Y9, Z9, and DD8 are all five MF away. DD5 is your best choice because you can rout to DD5 via the orchard in BB6 and the grain in CC6 without fear of Interdiction, because those hexes are not Open Ground. So you go to DD5. Now two more enemy units show up at DD4 and BB5. You can rout through DD6 to DD8 or FF7 without Interdiction because the unit in BB5 has its LOS Hindered by the grain in CC6, making DD6 safe even though it is Open Ground, and the unit in Z6 is Hindered by the orchard in BB6. You could instead go to FF7, GG7, or GG4 which are also five MF away, but each route would be subject to interdiction in EE6 from DD4.

Okay, I guess you guys have enough experience at being broken. Let's see if we can teach you how to rally.

Rally is the most common way that broken units return to Good Order. Leaders and crews can rally themselves, as is signified by the box that encloses their broken Morale Level. A unit attempting to rally itself is always referred to as making a Self-Rally attempt, which is distinctly different from a normal rally attempt. A Self-Rally attempt always incurs a +1 DRM penalty. Both rally and Self-Rally require the rolling of two dice. If the sum of the DR after modification is equal to or less than your broken Morale Level, you have rallied. If you roll an Original 2 Rally DR, Heat of Battle (A15.1) occurs (unless Self-Rallying, in which case Leader Creation is possible; A18.11) but we won't get into that now. If you roll greater than your broken Morale Level, you just remain broken unless you roll an Original 12. An Original 12 DR eliminates a crew or HS, Reduces a squad to a HS, and wounds a leader—just like rolling 12 on a MC (A10.64). There are several modifiers to the Rally DR. If you are under DM, a +4 DRM applies. A rally attempt in a woods/building/pillbox/trench Location receives a -1 DRM. "Drill Sergeant, what about lumberyards?" They are like wooden buildings for just about all purposes except rally (B23.211), so you don't get a terrain DRM for attempting to rally in a lumberyard.

I am now going to attempt Self-Rally. I am in woods and under DM. What Original DR do I need to Self-Rally? "4, Drill Sergeant." Correct. My broken Morale Level is 8 but I am subject to a +4 DRM (+1[Self-Rally] -1 [terrain] +4 [DM] = +4). A leader's leadership DRM never applies to himself. My Original Self-Rally DR is a 7 so I don't rally, but the DM is removed at the end of the RPh if I'm not ADJACENT to a Known enemy unit.

© 2005 Multi-Man Publishing, LLC

You, as a squad/HS, may not attempt to Self-Rally unless you do so during your own Player Turn as the first MMC rally attempt of that Player Turn (A18.11). In addition, you cannot be Disrupted or in the same Location with a Good Order leader. If this Self-Rally attempt results in an Original 2 DR, you may also attempt Leader Creation (A18.11), but that's another story altogether. Otherwise, you can only rally with the assistance of a Good Order leader in the same Location. Since I am still broken and our commander has seen fit not to waste his once-per-Game Turn Self-Rally attempt on you, you too will remain broken but will lose your DM status at the end of the RPh if not ADJACENT to a Known enemy unit.

It is the next RPh and we are no longer DM, so I need an Original 8 Rally DR to Self-Rally. My Self-Rally DR is again a 7 and I rally. Now that I'm unbroken I can help you rally in this same RPh. Your broken Morale Level is 8, but the addition of the -1 terrain DRM for being in woods and my -1 leadership DRM will enable you to rally on an Original DR of 10 or less. Regardless of favorable DRM, if you roll an Original 12 you'll suffer Casualty Reduction.

Let's assume we're in EE8 and DM. It is harder to rally here since the brush doesn't qualify for the terrain drm. I need an Original 3 or less to Self-Rally. However, if I succeed, you'll need only an Original 5 or less due to my leadership DRM and the absence of any Self-Rally. I fail my Self-Rally attempt so we all remain broken. You think that's funny, Mishcon? We'll see how funny it is when you clean out the latrines tonight! We are subsequently fired on again so we start the next RPh with DM, but a Good Order 9-2 leader has joined us. The 9-2 assists me so I am no longer penalized by a Self-Rally attempt, and I also get the benefit of the -2 leadership DRM, so I now need an Original 6 or less DR to rally.

Regardless of how I do, the 9-2 can also try to rally you. You now need a 6 or less also. If we fail to rally, we will still have the choice of retaining our DM so we can rout to a building/woods hex, or we can remove it—hoping to rally where we are. Usually, it is wise to remove the DM status. If we can avoid DM status before the next RPh, we will need only an Original 10 or less DR to rally thanks to the 9-2 leader.

I hope you can see how important leaders are. It's very common for units to break during combat and leaders are the most likely way of rallying them. Now let's try to put together the whole break-rout-rally cycle.

We are in W9. Three German 4-6-7 squads are in V7. They fire at us with 12 FP and a TEM/Hindrance DRM of +2. They roll an Original 6, which becomes an 8 after the DRM. This results in a 1MC which I pass and you fail . . . naturally. You are now a DM broken squad. You can remain in W9 since it is not Open Ground and no enemy units are ADJACENT, but you rout to a safer Location. I decide to accompany you on your rout. We must rout to the nearest woods/building hex which is Y9, U9, V10, or X10—all of which are three MF away. We rout to Y9 via X9, and continue to Z9 where we stop after using five of our six MF. In the following RPh I attempt to rally you. The total DRM is +2 (+4 [DM] -1 [terrain] -1 [leadership] = +2) so you need to roll an Original 6 or less to rally. You don't . . . of course.

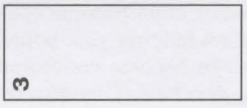
Those same three German squads have moved to X9 where in their AFPh they fire at us again. They use the 6 column of the IFT with a +3 DRM for the stone building. They roll an Original 3 which becomes a 6 on the IFT and results in a 1MC. We all break in two separate DR, and you are Reduced to a 3-3-7 HS for failing a MC while already broken. Although we don't have to rout since we are neither ADJACENT to the enemy nor in open Ground, we can rout to, among other places, Z10 or Y8 which are the closest woods/building hexes, but they are the same distance from the enemy as we are so we may disregard them. Although Z10 is closer to us (2 MF) than Y8 ($3^1/_2$ MF), we can still choose to go to Y8 simply because Z10 is no farther from the enemy. Dismissing the closest building/woods hex for being no farther from the enemy does not disqualify other hexes from consideration that are also no farther from the enemy. Z7 is closer ($3^1/_2$ MF) than CC9 ($4\ ^1/_2$ MF), so we choose to rout to Z7. We can rout no farther because we would have to leave woods/building terrain without directly entering other such terrain.

Since I am broken and DM, I need an Original DR of 4 or less to Self-Rally. I don't make it and therefore you don't get a chance to rally. Nor do we rally following our Player Turn. The enemy meanwhile moves to Y7 and Z8 where they automatically DM us again, and were it not for No Quarter would have again subjected us to surrender. So, we rout to the nearest woods—AA6—chancing Interdiction in AA7. We pass our respective separate Interdiction NMC but fail to rally. The enemy moves up to Z5 and AA7, forcing us to rout again. We rout to the building in DD5 via BB5 and CC5, avoiding Interdiction because Grain is not Open Ground.

I rally, but you don't, and the enemy moves up to CC5 and DD6—forcing you to rout again since these No Quarter Huns aren't taking prisoners. I opt to accompany you via Voluntary Rout (A10.711). Our choices are to rout to GG4, risking Interdiction in EE5 and FF4, or to Low Crawl to EE5. We go for the woods and risk Interdiction. Since I am no longer broken and am accompanying you in the RtPh voluntarily, I no longer have my own Interdiction NMC—instead being subject to the result of yours as if I were broken, except that I can aid you with my leadership. The Interdiction NMC DR for EE5 is an Original 7 which is reduced to a 6 by my leadership. So far so good. We continue into FF4 where the Original Interdiction DR is a 8. My leadership DRM saves us from Casualty Reduction, but the Final NMC DR of 7 still pins us in FF4. We may rout no farther in this RtPh and will doubtless be easy targets in the enemy's next fire phase. Rather than contemplate that dreary ending, let's call it a day.

Tomorrow, assemble in the street at 3O4 for Camouflage training. Squad DISMISSED.

DAY SIX: CONCEALMENT



■ TEN HUT!

At ease. This afternoon you will learn how to conceal yourselves from the enemy, what the benefits of concealment are, and how you lose that concealment. First, let's get out of the road where everyone can see us. Enter the building in O5. Is there any enemy in sight? No? Good. We can become concealed, and mark the occasion by placing that cardboard *concealment* "?" marker on our collective heads.

"Drill Sergeant, doesn't this make us more conspicuous?" It's not as good as being hidden, but if you can't be hidden it's certainly better than nothing. I don't want any one belly aching about how heavy their "?" are. Carry them on top of you whenever you can;

© 2005 Multi-Man Publishing, LLC



they're for your own good since they give you an edge in combat and help keep you alive.

You can gain concealment at the beginning of a game, before entry into a game as reinforcements, or at the end of your Player Turn. We will concentrate on gaining concealment during combat; in other words, at the end of your Player Turn.

To gain concealment you must be in Good Order, which basically means that you aren't broken or locked in Melee. A broken unit usually has someone yelling, wailing, or flopping around like a chicken with its head cut off—in short, without proper battlefield discipline. It can't hide from anybody. If you are in Melee with an enemy, you're likely to be making too much noise to be concealed.

It helps to be in Concealment Terrain to gain concealment (A12.12). This includes buildings, rubble, woods, grain, brush, marsh, and orchards. It also includes being behind a bocage hexside, but only when all unbroken enemy units with a LOS to you trace that LOS through the bocage. If you are in Concealment Terrain and out of the LOS of all unbroken enemy units, you automatically become concealed at the end of your turn. If an enemy unit has a LOS to you, you cannot become concealed since you can be seen. Even one Good Order SMC in LOS is enough to deny you concealment. You can gain concealment if you are in the LOS of any number of enemy units as long as they are all broken; if just one of them is unbroken, you cannot become concealed.

If you are not in Concealment Terrain, you automatically gain concealment at the end of your Player Turn if you are out of the LOS of all unbroken enemy units, and there are no unbroken enemy units within 16 hexes of you (whether they are in your LOS or not).

There are two cases in which you must make a dr (A12.122) if you wish to gain concealment. If you are in Concealment Terrain in the LOS of unbroken enemy units, but all of them are more than 16 hexes away, you can attempt to become concealed. If you are in non-Concealment Terrain, out of the LOS of all unbroken enemy units, but within 16 hexes of at least one unbroken enemy unit, you can attempt to become concealed. Both cases depend on making a concealment dr or 5 or less. That sounds easy, but there are modifiers to the dr. The first drm depends on the size of the unit trying to hide. A leader adds + 1, a HS +2, and a squad adds +3. With this drm I would have to roll an Original 4 or less to become concealed, but you would have to roll an Original 2 or less. A leader can use his leadership to help other units become concealed, but not himself. For example, if I am helping you, pointing out places where you can hide, you can become concealed with an Original dr of 3 or less. You are also helped by terrain. You subtract the TEM and the Hindrance of your terrain from the dr. There are also drm for being Lax or Stealthy but we'll ignore those for now.

What would you subtract from the dr if you are in a wooden building? "Two, Drill Sergeant." In woods? "One, Drill Sergeant." In an orchard? "One, Drill Sergeant." In a crag? "One, Drill Sergeant." No, a crag has both a TEM of one and a Hindrance of one. Try again. "Two, Drill Sergeant." Good. This modifier depends only on terrain in the hex itself. Walls, Height Advantage, and other hexside only TEM (i.e., LOS-dependent TEM) have no effect on this drm.

As an exercise, take a close look at the following tactical situation at the end of a German's Player Turn. Which units automatically gain a "?", which units must make a dr, what is the highest Original dr that they can roll and still become concealed, and which units cannot become concealed?

Here is the situation: U.S. Good Order squads in 3K7, M2 (ground level), M3, M10, P6, and a broken squad in S5 . The German units are as follows: G6: 7-0 leader & HS; H5: squad; J1: HS; N1 first level: squad; Q4: 9-1 leader & squad; R5 ground level: squad; R6: HS; S6: squad; T5: 8-0 leader & HS; U2: squad; W4: squad; AA7: HS; BB5: broken squad; DD9: 8-1 leader & HS; EE10: squad; EE6: HS; FF5: 9-2 leader & squad; FF9: squad; GG5: squad. Take ten minutes, look at the situation, and write down your answers. "Drill Sergeant, this is pretty complicated—couldn't you draw us a picture?" No, trainee—I ain't no artist and this isn't an Art Appreciation class. This is "hands-on" training—which means YOU place markers on a map and figure it out. I didn't ask you to do it from memory! The pretty pictures are in the ASL rulebook—we're not interested in making this easy for you. If you're going to learn—you'll have to get out the pieces and check LOS yourself. Now do it!

■ The units that can roll for concealment (and their necessary Original dr) are listed below. Mark them with a CX counter temporarily to symbolize that their concealment gain is dependent on a successful dr. A successful dr will conceal the following units: the 7-0 in G6 (5 or less), the HS in G6 (4 or less), the squad in H5 (3 or less), the leader in Q4 (4 or less), the squad in Q4 (3 or less), the squad in S6 (2 or less), the leader in T5 (4 or less), the HS in T5 (3 or less), the HS in EE6 (3 or less), the 9-2 in FF5 (4 or less), and the squad in FF5 (4 or less).

The units that cannot gain concealment are: the HS in J1 (LOS of M3), the HS in R6 (LOS of P6), the squad in W4 (LOS of K7), the squad in BB5 (broken), the squad in EE10 (LOS of K7 and not in Concealment Terrain), and all the U.S. units (not their Player Turn). All the other units gain "?" automatically.

Even though the units in FF5 are out of LOS of all enemy units, they are in non-Concealment Terrain within exactly 16 hexes of the unbroken enemy unit in P6, and must make a Concealment dr. GG5 is 17 hexes away so the unit there becomes concealed without a dr. The units in Q4 are in open terrain regardless of the hedge and must roll for concealment.

Now that you know how to gain a "?", you need to know what good it does you. First, it keeps the enemy from knowing exactly what is under the "?". You can look under your "?" to see what you have, but you may not peek under an enemy "?". I might also mention that you cannot inspect an enemy stack unless you have a Good Order unit with a LOS to it (A12.16). "Drill Sergeant, can you have both concealed and unconcealed units in the same hex?" Yes. In that case, put the unconcealed units on top, with the concealed units on the bottom and the "?" in between.

A second big advantage of being concealed is that it makes enemy fire less effective. In fact, FP against a concealed unit is reduced to half strength. This is in addition to all other forms of halving fire penalties. What if a pinned unit fires at Long Range at a concealed unit? How much is its FP reduced? "It is divided by eight, Drill Sergeant." Right. How is it reduced against a non-concealed unit? "Quartered, Drill Sergeant." Good. Concealment also helps you gain Ambush status when you first enter CC, and can help you bag routing units who head toward you as they move to the closest woods/building hex not "knowing" you're there until you reveal yourself (A10.533). Concealment has many advantages, but we'll concentrate on its FP effects for the moment.

"Drill Sergeant, if a concealed unit is stacked with an unconcealed unit, how is FP affected?" The concealed unit has the FP halved against it, while the unconcealed unit doesn't. This means that the attack would be resolved on different columns on the IFT, but with the same DR. For example, suppose that there are

© 2005 Multi-Man Publishing, LLC

two enemy squads in the woods in P5, one concealed and one not. Since we are in O5, you use Point Blank Fire. You have 14 FP against the unconcealed squad and seven FP against the concealed squad. My leadership negates the effect of the woods. If you roll a 9, the unconcealed squad must take a NMC, while the concealed squad is unaffected.

You see how useful concealment is to have, and you know how to get it. Concealment is easy to lose (A12.14), however. A unit loses concealment if it becomes broken or Reduced, regardless of the proximity of enemy units. If a unit is within LOS of a Good Order enemy unit, regardless of range, it loses its concealment if it is attacked and suffers a PTC or worse.

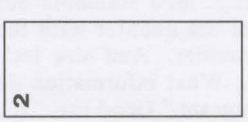
The unit must be in Good Order to make you lose concealment once you have it; it needs only to be unbroken to prevent you from gaining concealment in the first place. A Good Order unit is one that is neither broken, berserk, captured, nor in Melee.

If a Good Order enemy unit is within 16 hexes of you, and also has a LOS to you, there are many more ways to lose concealment. If you fire a weapon, you lose concealment. This includes your inherent FP or SW. If you are a leader, you lose your concealment if you try to rally a unit. You lose concealment if you attack in CC, barring a successful Ambush (A11.4). You also lose concealment if you enter an Open Ground hex or use non-Assault Movement. To keep your concealment while moving, you have to move real slow. At least one unit in your Location loses concealment if an enemy unit attempts to enter your Location (A12.15). Remember, you must be within 16 hexes of a Good Order enemy unit that has a LOS to you to lose concealment due to these actions.

Let's test your knowledge of concealment. Suppose there is an enemy Good Order unit in 3M5. You are still in O5, concealed. If the enemy squad fires at you and gets no effect, do you retain your concealment? "Yes, Drill Sergeant." What if the attack results in a PTC which you pass? "Yes, Drill Sergeant." Wrong. You do lose your concealment to a PTC—whether you pass it or not. Suppose that you fire at the only Good Order enemy unit in your LOS and break or eliminate it? Do you lose your concealment? "Yes, Drill Sergeant." Right—because the enemy unit was in Good Order when you fired at it. However, if that unit was already broken when you fired at it you wouldn't have lost your concealment.

Suppose that the enemy squad is in Good Order but you are broken. I am concealed but I try to rally you. Do I lose my concealment? "Yes, Drill Sergeant." Right. See what a leader has to give up for his men? You there, go fetch me a drink of water. Now, suppose that both you and the enemy squad are concealed. You move into the road in N5. Do you lose your concealment? "Yes, Drill Sergeant." Does the enemy squad, since you moved ADJACENT to it? "No, Drill Sergeant." Right, but it must be momentarily revealed to make you lose your concealment (A12.14). Suppose it doesn't fire at you, and chooses to remain concealed. You attempt to enter its Location in M5. Does it lose its concealment? "Yes, Drill Sergeant." Right, and what happens to you? "We stay in N5 and end our movement, Drill Sergeant." Son of . . . actually you entered M5 and the MF you paid to do so are still expended—but in N5 where they make you subject to new Defensive First Fire/Residual FP (A8.2). Now suppose that instead of one squad, there are three squads and a leader in M5, all concealed. If you tried to enter M5, who loses concealment? "One unit or more, chosen by Random Selection, Drill Sergeant." Outstanding.

DAY SEVEN: LIGHT MORTARS AND BASIC ORDNANCE



■ TEN HUT!



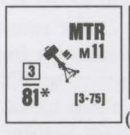
At ease. As you men no doubt recall, my name is Sergeant Stahler and I am your Drill Instructor. Today we are going to learn about mortars. By now you chowderheads have had some experience with SW and fired a machine gun or two. Mortars are a lot like machine guns, but can also be very different. We're going to look at some of those differences now. Meet me inside the building at 2I9.



FALL IN. Let me reintroduce you to the M2 60mm mortar. You all probably remember this beauty from Day One, when we got to lug it up and down 2I8. Remember what a bad time you had carrying a 5PP SW? "Yeah, but it would have been easier if you'd lent us an extra PP Sarge." Aww, Youse, was it too heavy for you? "Well, not so heavy as much as just awkward, Drill Sergeant." That's right, but the lesson was one you won't forget now, was it? There's another trick we could have done. Here, take the mortar, push on that tab, and twist the barrel...see? A mortar can be *dismantled (dm)* (A9.8), the same way most other heavy SW can be dm'ed. You can't fire a dismantled mortar, but it's easier to carry. We replace the M2 MTR counter with an M2 dm MTR counter. This shows us that it isn't ready to be fired. Do you notice any other difference on this counter? "The PP is down to 3, instead of 5, Drill Sergeant." Very good. Light mortars, like this M2, can be dm to halve their PP—fractions rounded up, of course. Larger mortars between 76 and 82mm also can be dm'ed—this makes them into a $^1/_2$" counter that you can carry just like any other SW. If you pass around the pieces and ammo boxes, then a squad like you can carry this one at normal speed, even without any help from a leader. Which is exactly what you're going to do now. Meet me at 2E2, and be there within five minutes.

A dm weapon can be assembled either during your PFPh or your DFPh. But you can only dismantle a mortar during these phases if you haven't shot it. Assembly takes some time, and counts as if you've used a SW during that phase. Assembling or dm'ing a mortar counts as using a SW, so you guys could fire your inherent FP during the phase—unless you assemble two mortars, or assemble a mortar and fire another SW.

Your commander also has a choice before a battle—if he wants you to enter a combat area with any of your eligible weapons dm, he can. But if the scenario card specifies a weapon is dm, then it must enter dm.

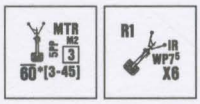




■ Large mortars are easier to get into awkward places than most Guns. Unlike other Guns, you can take a large mortar (if dm) into a Crag (B17.4), Graveyard (B18.43), or Entrenchment (B27.1), reassemble it, and fire from there. You can also take a dm mortar onto the roof of a building, assemble it, and fire it from up there (B23.85), if you're fighting in an area that has roof access. You aren't allowed to fire any mortar from inside a building at all (B23.423), including huts for you grunts that will be heading to the Pacific. Of course, you could fire any mortar from a lumberyard

© 2005 Multi-Man Publishing, LLC

(B23.211) or rubble—even if that rubble was formerly the upper level of a building.



■ Okay, here in 2E2, let's assemble our mortar. Replace the dm counter with the original M2 MTR counter. And now let's look at the counter. What information do you see? "It's back up to 5 PP, Drill Sergeant." Good eye. "It's 60mm, and only fires HE." Close—it isn't allowed to fire AP. "Are the numbers in brackets its range?" Yes, a mortar is an Indirect Fire weapon (C.1) that has a minimum and maximum range. The last number in the brackets is its maximum range, and the first number is its minimum range. "It has a Multiple ROF of 3." That's something to remember—mortars often have high rates of fire. Even if they aren't very accurate or deadly, they can get lucky eventually just because they keep firing and firing. A mortar can even change targets on subsequent ROF shots. Anything else? "What's the asterisk next to the caliber mean, Sarge?" That means our mortar has a short barrel length and suffers To Hit penalties for firing at longer ranges (C4.11; the Brass have indicated that the rules about barrel length apply to certain SW, including mortars).

Anything else? Has anyone tried turning the counter over yet? Besides the usual information on breaking and repairing a SW, there's two special notes for the M2. First, it can fire Illuminating Round (IR) ammo, and this might save you some enchanted evening. Second, the M2 mortar can fire WP in any battle taking place in 1945 (or, as an early Christmas present, the U.S. gets WP in December 1944 if you are in any of the *Kampfgruppe Peiper* battles [KGP SSR 16]). I'll describe WP in more detail when we talk about special ammunition.

Is that it? "Yes, Drill Sergeant." NO! IT IS NOT! Always, ALWAYS read up on any weapon or vehicle you're going to take out in the field—even if it's just a SW. If you'd checked Chapter H about this weapon, you'd also see that you can exchange three M2 60mm mortars for a 4 FP Offboard Artillery module, complete with a radio or field phone. This gets into rules we'll discuss some other day, but it's important for a commander to remember he has options. And that you should always read your operator's manual.

Finally, and most importantly, the M2 mortar is a $^1/_2$" counter, so it is a SW and not a Gun, even if it is considered ordnance because it uses the To Hit (TH) table. This means that your commander thinks any infantry is qualified to fire this thing, Heaven help us. Almost all $^1/_2$" SW do not require a specially trained crew to fire it at full effectiveness—except for American RCL and all 37* INF weapons, plus the Japanese always require a trained crew to fire a MMG, HMG, or ATR at full effectiveness (G1.611). The fact that we have a SW instead of a Gun says we don't have a CA when we set up or fire our mortar—this is light enough that we can turn and fire it in any direction with no penalty (A9.21).

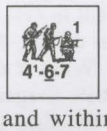
Like a MG, a squad can fire a mortar and still use its inherent FP. Unlike a MG, though, you cannot add your inherent FP to the results of a mortar's attack (A7.351), even if you fire at the same target. Since mortars are SW, a squad can fire two mortars (or one mortar and another SW) instead of using its inherent FP. Likewise, a half-squad can fire a mortar instead of using its inherent FP. If you've got a lot of leaders and heroes with nothing better to do, two SMC can team up to fire a mortar at full effect. And one SMC can fire a mortar alone, but he loses any chance for Multiple ROF (C9.2). If you moved the mortar this turn, you can't fire your mortar during the AFPh, either (A4.41), and that includes just changing Location within a hex. If you moved into a Location and Recovered a mortar during your MPh, you COULD fire it during the AFPh so long as you didn't move the mortar, but without ROF.



Mortars, like all weapons, are subject to breakdown. No, Nixon, that is not the same as dismantling it; it means it doesn't work any more. Most mortars have an inherent B12 (and so do not have a *Breakdown Number (B#)* printed on the counter), meaning that they malfunction on an Original To Hit DR of 12. When that happens, the mortar is inverted and cannot fire again until it is repaired, although if you had hit with an Original 12 (unlikely, but possible) that attack would still be resolved.

Look on the back of the counter again. What do you see besides the Special Ammo information? Petersen? "Uh, an R1 in the upper left and an X6 in the lower right." What else? Anyone see a big white X? Sometimes the obvious gets overlooked. The white X means you can't fire the mortar till you repair it. The R1 means you can repair it during the RPh with a Repair dr (no drm apply) of 1, while the X6 means a Repair dr of 6 eliminates the mortar. This is true for all SW mortars and most $^5/_8$" mortars also indeed, for most weapons in general. Some rare $^5/_8$" mortars (like some other Guns) don't have a white X on the back. Any guesses what that means? "It won't malfunction, Drill Sergeant?" You should be so lucky, Repetti. No, it means those Guns must be unlimbered to fire at full effectiveness (C10.2) and you use a special Malfunction counter when they break. Maybe some of you will go on to Advanced Ordnance training one day where they go into material like this. You guys sure aren't ready for it yet, though. Enough chatter. Let's try this baby out.





■ Standing at 2E2, and looking due east, how far can you see? "Hex 2Q2, Drill Sergeant." That's right. How far away is that? "12 hexes, Drill Sergeant." Good—and within easy range of our mortar. We'll put a simulated German 4-6-7 squad on top of the hill in 2Q2. For their sake, we'll let them set up in a foxhole. Set the range of your mortar to 480 meters, and let's fire off a round during the PFPh.

PHOOP!

Unlike firing your inherent FP or a MG, firing a mortar is a two step process. We have to roll To Hit (TH) the target, and then roll to determine how effective the hit was on the IFT. First we look at the C3 To Hit Table. Under TARGET TYPE/RANGE, we look under the 7-12 column, and cross reference that with the Area (Mortar, SMOKE) Target Type. You should get a 7. "Why is the seven red, Drill Sergeant? I thought in 1944 the Americans got black TH numbers." Normally that's true. But mortars are Indirect Fire weapons, and always use Area Target Type for the TH charts (C3.33). For Area Target Types, everybody gets a red number.

Next we read down through C4 GUN & AMMO BASIC TO HIT NUMBER MODIFICATIONS, and see what modifiers apply at this range. We have a * Gun (0 modifier until you're range is 13 or more hexes). Otherwise, no modifiers apply to us here so our Modified TH Number is 7. In comparison, the German light mortar is 50mm, and right away we see an advantage the American mortar has over its German counterpart—at ranges greater than 12 hexes, the smaller caliber of the German mortar suffers an additional reduction in its Modified TH Number.

Now we read through the C5 Firer Based DRM. Before you start, notice the "dagger" footnote reference says some of these cases do not apply to Area Target Types. That's us and our mor-

© 2005 Multi-Man Publishing, LLC

tar. Let's go through the checklist, skipping the daggered modifiers:

- **Case A:** Firer outside CA—doesn't apply, because light mortars don't care about CA.
- **Case B:** Fire in AFPh—we're not doing that just now.
- **Case D:** Pinned Firer/Spotter—we're not pinned.
- **Case F:** Intensive Fire—not an option for SW like our Light mortar (C5.6), but could be for mortars on a $^5/_8$" counter.
- **Case H:** Captured/Non-qualified Infantry—by the time we're done here, you'll be qualified to use an M2. This would apply only if we're using another nationality's mortar or a larger mortar on a $^5/_8$" counter.
- **Case I:** Buttoned Up AFV—certainly not a squad out on a sunny summer day.
- **Other:** None apply. We'll talk about Spotted Fire later.
- **Total DRM for Firer-Based Hit Determination:** +0

Okay, we're doing well. For all the modifiers that we can control, we have suffered no bad ones. Now we look at table C6, and see what the defender has done to avoid our fire:

- **Case J:** Moving/Motion Vehicle or Dashing Infantry—our target certainly isn't Dashing, nor a vehicle.
- **Case J[1]-J[2]:** Defensive First Fire vs Moving Vehicle—not shooting at a moving vehicle that just came into sight.
- **Case J[3]-J[4]:** FFNAM/FFMO—our target isn't moving for our benefit, either.
- **Case K:** vs Concealed Target or Area Fire—doesn't apply. For us this only applies if we have a concealed target. Area Fire (C.4) is NOT the same thing as Area Target Type (C3.33); just because we're using the Area Target Type doesn't mean we must use Area Fire.
- **Case M:** Bore Sighted Location—doesn't apply to us. We'll talk about Bore Sighting later.
- **Case N:** Acquired Target—this is our first shot, so it doesn't apply yet.
- **Case O:** Target using Hazardous Movement—doesn't apply.
- **Case P:** Target Size Modifier—infantry doesn't have a Target Size.
- **Case Q:** TEM—Note that TEM doesn't apply here. Don't smile too much though because we apply the TEM to the IFT results if and when we do score a hit.
- **Case R:** LOS Hindrance—no hindrance between here and there.
- **Other:** None apply.
- **Total DRM for Target-Based Hit Determination:** +0

There's one other thing to notice. The C6 table has a triangle (Δ) in the upper right hand corner, and C5 table does not. That means I can apply my Leader Modifier to your Firer-Based Hit Determination chances on the TH DR, and any defending leader cannot modify our roll. I'll throw in my -1 modifier now. So what do you need? "A 7 base to hit, +0 Firer Based DRM, +0 Target Based DRM, -1 DRM for Leadership. We need to roll an 8 or less, Drill Sergeant." That's right. And don't look so disappointed that it's only an eight—just try it. Roll the dice.



What did you roll? "A nine. We missed." Wait, get in the habit of checking your dice. What did you roll on the colored die? "It's a three, so we keep our ROF." Right, and you get another bonus besides a second shot. You also get an Acquisition counter. Choose a $^5/_8$" Acquisition counter out of your boxes—they look like a gun sight. We use $^5/_8$" Acquisition to mark Area Target Type Acquisition, and $^1/_2$" markers for Acquisition using Infantry or Vehicular Target Types. If you have many weapons putting many Acquisition counters on the table, you can choose an Acquisition counter that has the same Identity (A, B, C, and so on) as the weapon that it applies to. You might also choose one color of Acquisition counters to represent M2 mortars, if lots of different Ordnance are acquiring targets.

Now put the Acquisition counter, with the "-1" side up, on top of our target hex. If you remember Case N from the Target-Based Hit Determination, you see the -1 DRM applies to your now-acquired target. Presumably you have an idea of where your previous shot landed, and future shots can be corrected onto your target. So for your second shot, you get this new modifier. What do you need to hit now? "We needed an 8 last time, and the only change to the DRM is the -1 Acquisition. So now we need a 9?" See? It just keeps getting better. Roll the dice.

"We rolled a 5, but the colored die is a 4." Okay, you lost ROF for this turn, but you scored a hit on the target. Before we figure the hit results, flip your Area Acquisition over to the "-2" side for future shots. That's as good a DRM as you can get from Target Acquisition, and now next turn you'll need a 10 to hit. Not too shabby.

But now that we've gotten a hit, we need to figure out what sort of damage we've done to the target. Pull out the IFT, and look across the FP row. Each FP is followed by a slash and number, and the one we're interested in is the 8/60 column. This means our 60mm mortar has the equivalent FP as an 8 attack—almost. Because we're using Area Target Type, the FP for our mortar is halved to a 4. Does our target get any terrain modifiers in 2Q2? "+2 for the foxhole?" Yep. "+1 for Height Advantage?" No, HA never applies if you already have any positive modifier terrain bonus. And if you read B10.31 carefully, it says HA applies to "... any unit receiving Direct Fire..." and we are using Indirect Fire. Also, I can't offer you any Leadership Modifier because I can only apply it to your TH calculation (A7.531)—can't use me twice. Here's a quick opportunity to look at what might be shooting back at us someday. A German 50mm mortar would be on the 6/50 column, then halved to the 2 column. Not exactly as effective as our American mortar. "Weren't these originally designed in France, Drill Sergeant?" Get back to work, Ferraro.

Having finally scored a hit on our target, we resolve the damage on the IFT. Roll the dice. "We got a 7, +2 for TEM makes it a Final 9 on the 4 FP column. No effect." Well, not exciting. Most light mortar shots aren't though. And remember, unless that German squad does something, we get "To Hit" it on a 10 or less now that his hex is acquired, and with our Multiple ROF it can't count on a turn going by without us hitting for some effect.

Let's go to the German's turn, and assume the squad has been gracious enough to stay put in its foxhole. Fire again during our DFPh. What do you need to hit now? "Only DRM that's changed is the Acquisition, so now we need a 10." Outstanding. Roll the dice. "A five, and this time the colored die is 1." Good. Now roll on IFT column 4 with a +2 DRM. "Rolled a 4, +2 makes it a NMC." Excellent. Let's say the German squad rolls

© 2005 Multi-Man Publishing, LLC

an 8 and breaks. Now you get to fire again with your ROF. "Still need a 10. We roll a 2!"

Good shot. Not only is a 2 a hit, but you've scored a *Critical Hit (CH)* (C3.7). Now we'll make the squad regret staying in those foxholes. For mortars, the benefits to a CH are all modifiers to the IFT resolution. Instead of halving our FP (it was 8 halved to 4), we now double the FP (8 doubled to 16). Also, any TEM is now a minus to the DRM instead of a plus. So now the foxhole gives the defender a -2 TEM instead of the usual +2.

If we had gotten bonuses for FFNAM/FFMO (Case J3 and J4), they would stay negative (C3.71). An Airburst would also stay negative, but we'll talk about those later. If there had been multiple targets in the hex, a Critical Hit would only affect one of them (C3.74)—chosen by Random Selection. Everybody else in the hex, barring any ties on the Random Selection, would be hit with halved FP (8 halved to 4) and normal TEM.

Rolling a 2 TH is considered a CH only if you could have hit your target had you rolled a 3 or better—if you needed to roll a 2 or less *just to hit*, then you need to roll a subsequent dr. If the subsequent dr is a 1, you do indeed score a CH. Otherwise, on a dr of 2-6, you just score a normal hit (2-3 if you needed less than 2 to hit).

So now we roll on the IFT in the 16 column, with a -2 DRM for the reversed TEM of being in a foxhole. Roll away. "We got an 8—with double fours." You're worried about Cowering? Don't. Ordnance rolls on the IFT are immune to Cowering (A7.9). Your 8 minus 2 for terrain gives us a 2MC. Jerry rolls another 8; the squad misses its morale check and reduces to a broken half-squad. Here we see the true lethality of a high ROF. It can cause multiple morale checks before your opponent gets to rout away. Useful to keep in mind, especially if you get the chance to fire at a single target with multiple mortars.

As if the Critical Hit wasn't enough, we still have ROF. Roll again. "A 3!" This mortar is smoking! The only bad thing about having a great day with ROF is that it can draw some unwanted attention. All this rolling To Hit and rolling on the IFT could lead to some enemy Sniper attacks. But don't let me rain on this parade—figure your shot. "We have a 4 column +2 DRM on the IFT, and roll a 4. Goes to 6, a NMC." Okay. Jerry rolls 9. Not his day for morale checks. His half-squad is Casualty Reduced, and is removed from play. We still have our ROF, but now we're out of targets to fire at, so we'll save ammo and let the phase end.

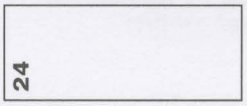


■ There are a couple of lessons to always remember when you're firing a mortar. A mortar's Area Acquisition is based on the *hex* you've targeted. If the enemy leaves the target hex, you can't track him. Instead, you keep your acquisition on the hex he just left. You can even use the Area Target Type to acquire a hex that has no enemy in it, and thereby acquire a hex you think the enemy might be headed for—or maybe the hex could have hidden enemy units stashed away. The only thing you need to worry about is enemy Snipers and Malfunctioning the mortar.

If you fire the mortar at another hex, you lose the Area Acquisition you had before on the first hex and start gaining acquisition on the new target hex. A word of warning—and another difference between mortars and MG—if you fire your inherent FP at anyone, *even the same target you fired your mortar at*, you lose your Target Acquisition (C6.5). The choice is yours—keep shooting your mortar with its increased accuracy, or blast them with your tommyguns. If you really want to use your inherent FP, use it in your friendly fire phase *before* you ever fire your mortar. That way, you get to shoot and gain acquisition, at least for that turn. Next turn, you could fire your mortar with its new acquisition, then think about firing your inherent FP. Of course, if you fire your FP without a leader, there is the danger that you could Cower. And if you *do* Cower, you and all your SW will be marked with a Final Fire counter (A7.9), and you will lose your chance to fire your mortar.

This would be a good time to mention *Bore Sighting (C6.4)*, which you might remember seeing in Case M on the Target-Based Hit Determination modifiers. If your current scenario makes you the Scenario Defender (check your Index!), you can Bore Sight your Mortars (plus lots of other weapons). You write down the mortar, its possessing unit, and the hex it is Bore Sighted on. The target hex must be within a range of 16 hexes. So long as you don't move the mortar to a different hex or give it to some other unit, you can keep your Bore Sighted hex in your sights and get a -2 DRM on your TH roll—even if you fire your inherent FP or the mortar at a target in a Location other than your Bore Sighted one. Bore Sighting cannot be combined with Acquisition, though. Think of it as a pre-acquired target hex—with a little more versatility.

Board 2 is a little claustrophobic for people trying to see far and shoot farther. Let's dm the M2, clean it, fall out for chow, and assemble at 24B3 in an hour. DISMISSED!



■ TEN HUT!



At ease. You probably remember some of the interesting terrain we have here on board 24 from earlier in your training. This afternoon we're going to study some of the more unusual tactics and terrain conditions that can affect a mortar's performance. Assemble the mortar.

Say we have seen a German squad armed with a HMG at level 2 of 24V3. Thinks its the cat's pajamas up there, in that stone building with a commanding view over most of the battlefield. But out here, we're outside of its weapon range unless it has a leader to direct its fire (A9.4). And the squad's within ours. Let's take a shot at that unit.

PHOOP!

Check the C3 table. Range? "Twenty hexes, Drill Sergeant." That gives us a base of 8 to hit. Table C4 tells us that firing a * Gun will give us a -1 right off the bat, so the Modified TH Number goes down to 7.

Run through the C5 DRM, and tell me what applies. "Nothing, Drill Sergeant?" Right. What does table C6 give us? "We can see over the building in 24N3, right?" Right. C6 gives us no DRM, either.

So what's our chance TH? "Modified base DR of 7, +0 DRM for C5, +0 DRM for C6, and a -1 DRM from your leadership." Yeah, I'll help you with this shot. You need to roll 8 or less. Throw the dice. "We got a 5, colored die is 1." Now let's see what effect we have on these Krauts. Check the IFT, and add +3 for the stone building. "A 4 FP +3, and we roll a 6, goes to 9. No effect." But I see you marking the target hex with your -1 Acquisition counter, and loading for another shot because you maintained ROF. Very good.

Roll again, and call out your DRM. "Modified base DR of 7, +0 DRM for C5, -1 DRM for C6 with our Acquisition, -1 DRM for

© 2005 Multi-Man Publishing, LLC

your leadership. We need to roll a 9 or less." Right. "We roll a 9, colored die is 3." And the results? "Roll on the 4 column of the IFT, +3 for stone, we roll a 3, goes to 6. Jerry takes a NMC." Excellent. Say he rolls and stands firm. Take your next shot. "Modified base DR of 7, +0 for C5, -2 for our Acquisition on C6, -1 DRM for leadership. We need a 10 or less. We roll a 6, colored die is 5. No more ROF." And what do you do after you hit? "Roll a 4 on the IFT, goes to 7. PTC for Jerry." The squad rolls, and is pinned. End of your PFPh, unless you want to fire your inherent FP at something and lose your Acquisition. "No way, Drill Sergeant!" Good choice.



Just to make things more interesting, let's say that on the German's turn, two Concealed squads move into the building at 24V3—one on Level 0, one on Level 1. Now it's our DFPh, and we shoot again. Can we hit the new unit? Anyone? Okay, it's an interesting situation. You're probably concerned about losing your Acquisition by changing targets. That won't happen because Area Acquisition covers the entire hex. Anything else? "We can see where the Concealed squad moved into Level 1, but can we even see Level 0 over there Drill Sergeant?" Well, no you can't, at least from here. It's hidden behind Level 2 of the building in hex 24N3. But that doesn't matter with our mortar. Remember, we're firing at the *hex* and not a specific *Location* in that hex. Potentially, we can affect everyone and everything in that hex by using Area Target Type, whether they are friend or foe (C3.33).

Two things will modify our shot. The new Concealed squads will be harder to hit, and they will certainly get better cover from all those floors of stone building over their heads. But we can still affect them with the same dice rolls that affect the HMG squad up on Level 2.

We start with the same TH DRM for the squad on Level 2. What other TH DRM apply to the squad at Level 1? "Case K, vs Concealed Target?" Bingo. He now has a +2 TH DRM. We roll To Hit the hex only once, and apply the appropriate modifiers to each target in the hex. We may hit the guys on Level 2 and miss the guys on Level 1. Because the guys on level 0 are out of our LOS, we only hit them if we hit the hardest target we can see. In other words, if we score a hit on the guys in Level 1, we hit everyone. Fire when ready, and for now keep track only of the modifiers for the HMG unit.

"Modified base DR of 7, +0 DRM for C5, -2 DRM for our Acquisition on 24V3, -1 DRM for leadership. We need a 10 or less. We roll a 6, colored die is 5. We have no ROF." Okay, so the squad upstairs gets hit. How about the Level 1 boys? "Our roll of 6, +2 for Case K, but -2 for Acquisition and -1 for leadership is also a hit." And because we hit the squad at Level 1 (our hardest target), we also hit the unseen squad at Level 0. Now for the effect. "We roll a 3 on the IFT, +3 for the stone building gives us a NMC." Jerry rolls 4, and stands firm. Okay, now let's see what the effect is on the guys on level 1. Even though they were Concealed, we don't halve the firepower of our indirect fire. Our penalty was already paid when we figured them to be harder to hit (A12.13). But because they are on a lower floor of a building, they get an additional +1 IFT DRM per floor above them (B23.32), even if that higher level has been Rubbled (B24.3). That modifies your IFT DR to a 7—a PTC. That's enough to strip away their concealment. Surprise, Jerry. He rolls, and the squad is pinned to boot. Now the last squad, the one at Level 0. What happens to it? "Our IFT DR is modified by +3 for stone building, and another +2 for the two floors above it. The Final IFT DR is 8. No effect." That's right.

Had we scored a CH on our TH roll, we wouldn't get the bonus of reversing the TEM from positive to negative for everyone. We would use Random Selection to pick who got the CH thrashing (C3.74). And it's scary for people in stone buildings: the 16 column with a -3 on the IFT for the stone building. Everyone else in the hex would be hit on the IFT under the 4 column, as usual, figured with normal TEM bonuses added to our IFT DR. "Uh, Drill Sergeant, would the guys on level 1 of the building get a -4? Er, -3 for the stone building, and another -1 for having a floor above them?" No, the Brass says that the floor bonus does not apply to a CH, but good thinking.

■ End of the PFPh, and let's look at the Germans' situation. They're in good cover, but our mortar has -2 Acquisition. Last turn we were lucky with our IFT DR. The HMG squad took a NMC, and the concealed squad took a PTC, lost its concealment, and ended up pinned. Our mortar is outside their range without a leader, and they can't even return fire. If you were the Germans, would you stay in that position? That, of course, depends on how the rest of the battle is going. But we've succeeded in making them think twice about what looked to be the strongest position on the board. And we're only one squad.

Now let's look at our situation. What do you think? "I think we've got him against the ropes, Drill Sergeant!" Yeah, yeah. And what else? "Well, we are sitting out here in the middle of open terrain. What if the Germans come after us?" Exactly. So far, we've looked at mortars as long-range fire support. That's ideal sometimes, but if you've ever waded through a couple of the ASL boards, you probably realize that long range shots are a luxury. Let's explore what happens if we're in a little closer to the action. First dm the mortar, and let's march over to 24O8. I've got some new tactics to show you.



■ Fall in! Okay, let's get that mortar reassembled. We're going to once again put a simulated German squad armed with a HMG in level 2 of building 24V3. We can't see him here, because of the hill to our east. I'm going to Deploy you boys into two HS (A1.31). Count off by two's, all ones will join our Assistant Squad Leader in HS Able, the rest of you will gather around the mortar in HS Baker. Now we'll wait out the turn until we gain Concealment for being out of LOS (A12.12).

Next turn already? Somebody wake up McGrath. Okay, HS Baker still possesses the mortar and can stay here. HS Able, come with me. We are going to Assault Move up this hill, into the trees in 24P7. By using Assault movement into concealment terrain, we get to keep our "?" marker. Now look at our target in 24V3. That HMG suddenly looks a lot more dangerous, doesn't it? But we're still at Long Range for a German First Line squad, and we're concealed and in some cover. Not too tempting a target, we hope.

We are going to use our position here to act as Spotters for the mortar adjacent to us (C9.3). From here, so long as we remain adjacent to the mortar, we can call down correcting fire information. Note that we merely need to be adjacent (within 1 hex) and not necessarily ADJACENT (within LOS and advance movement range). So we could be up a cliff or on the third level of a building or even out of LOS, for all the HS we're Spotting for cares. Because we're Spotting for them, they can fire the mortar and be immune from any return fire. And so long as you boys only call out correcting information, Spotting is not a Concealment Loss activity (Case C on the Concealment Loss/Gain table). And if we had been lucky enough to set up HIP, Spotting wouldn't give you away, either. A nice combination, don't you think? Now you boys stay here, and I'm going down to coach the mortar team. "Uh, Drill Sergeant? Don't you think you'd better help us spot?" Nah. Spotting is something I can't help you with (^), and

© 2005 Multi-Man Publishing, LLC

if you do need to Rout away from that HMG, I'll be just one hex away, along your most logical Rout path. You stay put. I'm heading back to 24O8.

Howdy boys. Point that mortar where you think 24V3 is, and make sure you're aiming higher than HS Able. Okay, now that you Baker boys are firing the mortar, you lose any inherent FP. You'd also lose your "?" when you fire if any other Germans could see us, but we don't really care because the only ones we know about are out of our LOS. Another thing to know—your ROF will drop by one because you're losing some of your reloading speed using a Spotter and watching for correction signals from HS Able. Now that we've declared HS Able to be our spotters, we can't use someone else as a spotter until HS Able is killed, captured, or broken. So if they are pinned, our Spotted Fire suffers from C5 Case D—Pinned Firer/Spotter. Let's wait for our DFPh and fire.

PHOOP!

And what do you need to hit? "Range is 8 hexes, we have a base chance of 7. C5 Case Other says Spotted fire is a +2 DRM. C6 gives us no DRM, and we have no acquisition from this new Location. We need a 5 TH." Close, but you missed one. The Brass says that while I can't help HS Able with its spotting, I can still use my Leadership DRM to help you guys fire your spotted mortar. So you'll need a 6 TH. What do you roll? "A 7, colored die is a 2. We missed but have ROF." And we just gained our -1 for Target Acquisition, because HS Able is signaling us from above that our shot hooked a little.

We shoot again. What do we need to hit? "A 7, counting DRM for Acquisition, leadership, and Spotted Fire." And do you hit? "We roll a 4, colored die is 3. No ROF because it's reduced one for Spotted Fire." Good. Remember to flip the Acquisition counter to -2. Now roll for your effect. "We roll 10 on the IFT, +3 for the stone building, and have no effect." Sorry to hear that.



■ Okay, let's hold our fire a moment. HS Able is signaling that the Germans are finally bugging out of that building. This Spotted Fire might be a luxury we can't afford anymore. Let's get that mortar up with HS Able. No, don't dm it, just pick it up. Let me help. Take a quick check. It's a 5PP mortar, as a HS you can carry 3PP and I can help for one more. Together we have 5 MF. It'll cost 4 to get up the hill, so we can still Assault Move. Go! Go! Go!

HS Able, we're going to Recombine into our full squad. By moving the mortar, we've lost any acquisition we had on hex 24V3. Have you seen the Germans? "No, Drill Sergeant, we lost them when they came down out of the building." Stay sharp, now it's their MPh, and we might get a shot. There! See them? They're moving in the trees over at 24V7! Far enough from us to be at Long Range for our FP, but we've got our mortar. Let 'em have it!

What do we need to hit? "Range is 6 hexes, we have a base TH of 7. No more Spotted Fire, so C5 gives us +0. C6 gives us J3 FFNAM for -1, and Case R LOS Hindrance for the Orchard in 24V8 gives us +1, total +0 DRM. Your leadership modifier is another -1 DRM. We need an 8 to hit." Roll. "We got a 6, colored die is a 2. We hit and got ROF." Place your Acquisition counter.

Now on the IFT we have a new special case. The Germans are in woods, and that gives this Indirect Fire an Air Burst (B13.3) effect. The shrapnel of our shells is made even more vicious detonating on the tree tops and spreading down. Instead of the Germans getting a +1 TEM, they get a -1 for being in Woods. This modifier is cumulative with any other terrain, so even if they were in a foxhole, their TEM of +2 would *also* get a -1 for the Woods, for a net TEM of +1. But these boys are just standing there, thinking trees are good cover. What are your results? "We roll a 7, TEM of -1 gives us a 6, which scores a NMC." Excellent. The Germans roll and break. They spent 2 MF in our LOS, so as long as we have ROF we can fire once more. Next shot.

"We have a base 7, C5 gives us +0, C6 gives us -1 for Acquisition, +1 for LOS Hindrance, -1 for FFNAM, Leadership DRM -1, for a total DRM of -2. We need a 9 to hit. We roll a 10, and miss." That's all right. At least we've got that squad on the run. Two more things to know about an Airburst. First, any residual fire left in a woods hex by a mortar is increased by one IFT column. Second, a CH in woods still gets the -1 DRM to the IFT DR (C3.71) for Airbursts—it isn't reversed to a positive value. The Brass says the +1 Direct Fire woods TEM is *not* considered for an Indirect Fire CH, but other TEM (e.g., entrenchment) would be. So, a CH against a foxhole in a woods hex would use -2 TEM for the foxhole, plus -1 TEM for the Airburst, for a total -3 DRM.

With our mortar's ROF exhausted, we could now sacrifice our Acquisition and use our inherent FP before the Germans rout away. And now that the heat of the moment is passed, I realize that we could have attacked the Germans with our inherent FP *before* we fired the mortar, and that way we wouldn't have interfered with our acquisition. "Unless we didn't have you with us, and we Cowered, right Drill Sergeant?" Exactly, although I couldn't direct both your inherent FP *and* your mortar attack. I can't do everything, you know. When we're up against real German squads, I hope we'll keep our heads and not let them get off so easy.

Now we'll check out where the Germans went. Let's wait until our turn, and then move over to those woods in hex 24W5.



■ Look around. I see another simulated German squad in hex 24BB4, behind that hedge. What do we need to hit? "Range is 5 hexes, we have a base of 7. C5 is +0, C6 is +0, Leadership Modifier is -1. We need an 8." And roll. "We roll a 7, colored die is 4. Hit with no ROF." Right.

Now hedges and walls don't offer the same protection against Indirect Fire as they do against Direct Fire. Their protective TEM is reduced by one (B9.34). This decreased protection also applies to Bocage. So the hedge that the Germans are hiding behind is a +0 TEM. This still would negate any chance at FFMO, because our LOS to the Germans crosses the hedge depiction. What do you do to the German? "We roll an 8 on the IFT, +0 TEM for the hedge vs Indirect fire, for a result of No Effect." Close, though.

Any target hex that has a hedge or wall depiction gets the reduced TEM—even if our LOS didn't cross the depiction. "Excuse me, Drill Sergeant? What?" Look at hex 24AA10. Say there was a German squad in there, and we were set up in 24CC10. What TEM would he get? "Wall TEM is +2, reduced to +1 vs Indirect Fire, Drill Sergeant." Right. Now, leave the German squad there, and let's say we're set up in hex 24Y10. He *still* gets a +1 TEM for the wall (B9.34). Not all of our Indirect Fire shots land exactly where we'd like them to land, and he still gets a little protection for being near the wall—even if he's on our side of it. "But Drill Sergeant, if we saw him move there, would we still get a -1 FFMO DRM to our To Hit DR?" Sure, that hasn't changed. So long as our LOS doesn't cross the depiction on the hexside, we see him as if he's in the open. He just gets a little TEM when we resolve our Indirect Fire. "Drill Sergeant, would he get a modifier for two walls? He's adjacent

© 2005 Multi-Man Publishing, LLC

to two hexsides that are wall depictions." Repetti, do you have any lawyers in your family? Well, nice try, but no. The rules say that you can only apply one wall TEM in this way.



■ Let's stop shooting at our simulated squad over there, and take a moment to look in some of our specially marked ammo boxes. This is our standard issue of Special Ammunition (C8). As I told you before, in addition to HE rounds, the M2 mortar can fire *IR (C8.7, E1.93)*. Plus, depending on the date, sometimes it can also fire *White Phosphorous (WP) (A24.31, C8.6)*.

IR are only useful for night scenarios, and I'm not going to teach you about fighting at night just yet. But some rules apply only to mortars firing IR, and we'll mention those. First, you must make a Usage dr of 4 or less before you actually can fire IR. Then to fire IR, you must make a TH roll. Not that you're going to hit anything, but you might malfunction your weapon or draw Sniper fire. Firing IR consumes all your ROF for that turn, and counts as a Gunflash. Placement of the IR...well, that starts getting into night specific rules, and I think I'll just encourage you boys to read E1.932 and E1.922 before you find yourselves manning a mortar some dark night.

Your WP Special Ammunition is another issue. Let's explore this ammo round carefully. First, note that the Index defines SMOKE as both Smoke and WP. WP is the U.S. player's version of SMOKE for this mortar. "Drill Sergeant, why would we want to waste time firing SMOKE when we could be blasting the enemy with HE?" Because a well placed SMOKE round can provide a Hindrance for your opponent's LOS to a hex you're concerned about crossing. SMOKE negates FFMO if your troops are moving behind it. We can even use WP offensively.

In any scenario set in 1945 (or December 1944 in any of the *Kampfgruppe Peiper* scenarios [KGP SSR 16]), the M2 mortar has a WP Depletion Number (C8.9) of 7. If you want to fire WP, announce that you're firing it, and roll TH. You compare your TH roll with the Depletion Number on the back of your mortar counter. If your roll is less than the number, you fired successfully. If you roll higher than the Depletion Number, you don't have any WP to fire and are considered to have not even fired yet—unless you malfunction the mortar. If you roll exactly your Depletion Number, you get off your last round of WP and can no longer try to fire it from this mortar—at least in this scenario. This requires your commander to do some record keeping to track who's still able to fire WP. You can't fire SMOKE in fog, rain, heavy winds, Mud, or Deep Snow.

"Drill Sergeant, what happens if you miss with a SMOKE round? Where does it go?" Notice on C4 you get a +2 to your TH number if you're firing SMOKE within 12 hexes. It's pretty tough to miss when firing SMOKE. You'll probably roll higher than your Depletion Number before you ever miss with a SMOKE round. But just in case you find a way to miss, it's assumed to have landed where it is ineffective, and therefore not put into play. Maybe into somebody's rain barrel.

SMOKE must be fired before anything else fires in the PFPh and DFPh. As soon as you fire any other type of ammo during your PFPh/DFPh, you can't fire any more SMOKE. In addition, WP can be fired at the start of a friendly fire phase before any other fire. Of course this doesn't include a squad using Smoke Grenades (A24.1) since that happens during the MPh.

A couple of interesting things to notice about SMOKE. Firing from a mortar is the only way a commander can hope for multiple SMOKE clouds from one weapon, since using the Area Target Type consumes a non-mortar's ROF (C3.33). If you maintain your ROF without depleting your Special Ammo, you can keep firing SMOKE. Smoke has to be fired in the PFPh or DFPh, but WP can be fired during any friendly fire phase. If it's other than the beginning of the PFPh, however, the WP is placed onboard as a white dispersed WP counter (A24.31). If you keep up your ROF, you can also switch from WP to HE rounds. Just remember that the first HE round fired ends any opportunity to fire more SMOKE this phase.

When WP hits, you place a WP counter on that hex; it's a +2 Hindrance cloud that rises 4 levels above the hex's ground Level. SMOKE always lands on the ground level of a hex, no matter who you were shooting at in that hex—even if the ground level is out of your LOS. Note that there are three different WP counters: a white WP counter with a +2 Hindrance, a white Dispersed WP counter with a +1 Hindrance, and a gray Dispersed WP counter with a +1 Hindrance. You place a white WP counter in your target hex after you score a hit. On *your* next PFPh, you flip the White WP counter over to the Dispersed WP side or remove it if already Dispersed. If there's a Mild Breeze blowing, the Brass says your WP remains a Level 4 Hindrance ('91 Annual) and during the AFPh it Drifts (A24.61), creating a row of two (or only one from a white dispersed WP counter) gray Dispersed WP counters that flow downwind from your original White WP counter.

If you're standing in a Location that's been hit with SMOKE, your view of the world is affected more than the world's view of you, and *your* IFT DR and TH modifiers add +1 (A24.8). And that's only one reason to think about shooting your opponent with WP. WP is also a major irritant. Anybody in a hex hit by WP (but never a hex into which WP has Drifted) must take a NMC (A24.31) unless safe inside a BU CT AFV. Leadership benefits and TEM—even Air Bursts—apply to this NMC, so chances of a result may be small. But a NMC will strip any concealment that the target had, which can be useful. This NMC will also DM an already broken target. Plus, you can score a CH with WP like any Area Target Type shots (or if you're throwing WP grenades and the affected squad rolls a 6 on the colored die during his NMC). Like a regular CH, a WP CH changes any positive DRM to a *negative* modifier to the NMC. WP is so volatile that it may cause fires in Dry or Very Dry EC (A24.32).



■ Okay, heads up. Hear that? "Sounds like trucks coming, Drill Sergeant. From the east." Yeah, we're going to try firing our mortar at some vehicles. Because vehicles are so mobile, it can be hard to keep them Acquired since Area Acquisition doesn't track targets into new hexes. Unless, of course, the vehicle starts doing some cross-country driving and spends some quality time in each hex. During our opponent's MPh, we can only fire at a unit as many times in one Location as it spent MF/MP in that Location (C6.17).

Here comes our target. There's something coming around those woods, we'll likely see it in 24BB7. Yep, it's an Opel Blitz truck, with its VCA pointing due west. It just spent $^1/_2$ a MP pulling into view. What do you need TH? "Range is 5 hexes, we have a base 7 to hit. C5 gives us +0."

C6 gives us some new cases:

Case J: vs Moving Vehicle +2.

Case J²: Defensive First Fire vs Moving Vehicle ≤ 1 MP in our LOS +2.

Case P: Target Size +0.

Total: +4

© 2005 Multi-Man Publishing, LLC

Ouch. Throw in my Leader Modifier for -1, and what do you need to hit? "7, C5 +0, C6 +4, Leader DRM -1, we need a 4 or less." And roll. "We roll an 8, colored die is 3. Missed, but maintain ROF." Okay. And we can't shoot at the truck during its MPh until it either enters another Location or spends another MP (A8.1).

Opel Blitz opts to keep moving into hex 24AA7. We can either fire at the truck or keep our -1 Acquisition on hex 24BB7. "Are we going to get more targets coming down this road, Drill Sergeant?" That's not the point—we're here to shoot this truck. What do you need TH? "Range is 4 hexes, base 7 TH. C5 gives us +0." And for C6, Case J still applies (+2). Even though the truck has entered a new Location, it's still only spent 1 MP in our LOS, so J2 still applies (+2). Total is +4. "Base 7, C5 +0, C6 +4, Leader DRM -1, we need a 4 TH." And your roll? "Seven, colored die is 3. Missed and kept ROF again." All right. In the real world, we might have considered letting our mortar sit this one out and just shot that truck with our inherent FP. But we're here to learn about mortars, so keep dropping shells in the tube.

Opel Blitz spends $^1/_2$ a MP, and moves into 24Z6. We've seen it spend $1^1/_2$ MP. Case J still applies, but now instead of J2 we get to use J1 (+1) since the truck has been moving in our LOS for more than 1 MP and less than or equal to 3 MP. So we now need a 5 TH. Roll. "8 again, colored die is 2. Missed, but maintain ROF." Right now, if the truck moved into 24Y6 it would be closer than the minimum range of our mortar and we couldn't fire at it anymore. Fortunately, its driver's in training too, and it stays on the road.

That Opel Blitz now spends another 1 MP in hex 24Z6 to change VCA to the Y6-Z5 hexspine. It's spent $2^1/_2$ MP in our LOS. What do you need to hit? "Base 7, C5 is +0, C6 has Case J (+2), J1 still applies (+1), and Case N gives us -1 for Acquisition. Total is +2. Leader modifier is -1. We need a 6 to hit." Excellent. Fire away. "We roll a 5, colored die is a 1, maintain ROF." Very good.

Unarmored vehicles are hit on the ★ row of the IFT (A7.308, C1.55), and our DR would be modified by any applicable TEM. Our 60mm mortar gives us the 8FP column, halved for area fire is the 4FP column. The ★ row says "5". If we roll less than 5 we destroy the truck and flip it to its Wrecked side, and any PRC onboard could roll for Survival (D5.6). If we roll half what we need to hit (FRD, so if we roll a 2), the truck becomes a Burning Wreck and nobody survives. If we roll exactly a 5, then the truck is Immobilized. Greater than a 5, and we have no effect on the truck. If, and only if, we don't destroy the truck, then any PRC onboard would suffer a General Collateral Attack. In this case, they would use the original IFT DR number we came up with on the 4FP column.

What do you roll? "We roll a 9. No effect." And no effect on any vulnerable PRC, either. It's okay, we still have ROF.



The Opel Blitz spends $^1/_2$ MP and moves to hex 24Z5. Total MP spent in our LOS is 3. Your chance To Hit? "Base 7, C5 is +0, C6 Case J is +2, Case J1 is +1, Leader Modifier is -1. We need a 5 to hit." And do you? "We roll a 5, colored die is 4. Hit with no more ROF." And to kill? "We roll a 4!" All right. The truck is flipped to its Wreck side, any passengers have to roll a *Passenger/Rider Survival (cs) (D5.6)* of 6 or less to escape the carnage. Seeing how we've already figured the damage on the vehicle, surviving passengers would not be further affected by a General Collateral Attack (D5.6) since the attack eliminated the truck. Nice shooting, boys. That was something like five shots in a row. Had the truck kept moving, it would have spent more than 3 MP in our LOS, and we finally would have lost that J1 modifier to our TH DR. And if you wanted to, you could now blast away with your inherent FP at any PRC that survived the hit.



■ Next turn, now let's see what comes around the bend. Something is driving this way. And there's our target—a tank driving along the road, due east, and now entering 24BB7, *Buttoned Up (BU) (D5.2)* with its *Vehicle Covered Arc (VCA) (D3.11)* pointing at the AA7-AA8 hexspine. So far, we've seen it spend 1 MP in our LOS, so Case J2 would apply.

First, let's take a quick gander at the tank. It's a German Mark II. It's driving BU, so it'll be spending a full MP per hex it enters. That means we will lose our Case J^1 and J^2 modifiers much sooner than we did with the truck. Note that the white dot on the vehicle's Front Armor Factor means the vehicle is a Small Target (D1.74), and that its front and side armor are both 1.

The tank spends 1 MP and enters 24AA7. It's already spent two MP in our LOS, so Case J2 no longer applies. Fire when ready.

"Range is 4 hexes, base TH is 7. C5 gives us +0. C6 gives us Case J for a Moving Vehicle (+2), Case J1 for it spending less than or equal to 3 MP in our LOS (+1). Case P Target Size is Small (+1), for a total of +4. Leader Modifier is -1. We need a 4 to hit." And roll. "We get a 7, colored die is 3. Missed, but retain ROF." Okay.

The tank spends 1 MP to change its CA to the Z6-AA6 hexspine, so now it's spent 3 MP in our LOS. We can fire again. "Base TH is 7. C5 is still 0. C6 gives us Case J (+2), Case J1 (+1), Case N Acquired Target (-1), and Case P (+1), for a total of +3. Leader Modifier is -1. We need 5 to hit." And? "We roll a 6, colored die is 5. Miss with no ROF." We're done for this DFPh. We just gotta watch it drive now. The tank moves on to 24Z6, so it's spent more than 3 MP in our LOS. It spends another MP to change CA to hexspine Z5-AA6, spends 2 MP to move into hex 24Z5 with the wreck of the truck, and a MP to Stop.

During our Prep Fire Phase, we can shoot at the tank again. And this time, it isn't moving. What do you need? "Range of 3 hexes is a base of 7, C5 is 0, C6 is only Case P (+1), and +1 modifier for the Hindrance of the wreck." No. A wreck is only a Hindrance if LOS goes *through* the hex, not just into or out of the hex (D9.4). And Wreck TEM only applies to Infantry (D9.3). Go on. "So C6 is a total of +1. Leader Modifier is -1. So we need a 7 TH."

And your roll? "We roll a 9, colored die is 3, we miss and maintain ROF." Keep shooting. "Next shot gets an additional -1 for Acquisition, so we need an 8 to hit. We roll a 7, colored die is 5. We hit with no ROF." Outstanding. But now that we're shooting at an AFV, we have something new to check. The colored die not only tells us ROF, but also tells us the Hit Location against a Vehicle.

Hit location on an AFV is figured by what you rolled on your TH DR. If the white die is greater than the colored die on your DR, you've hit the turret. Otherwise you hit the hull (C3.9). You can remember this because it's the same color scheme as the suggested House Rule for Random Selection (A.9) where the highest die declares which target is hit. The rules suggest the lightest hue (our white die) hits the top unit (the turret), and darker hue hits the lower unit in a stack (the hull). There's an exception for Location of a Hit if you get a CH vs a HD target, but nobody is ever HD against Indirect Fire (D4.2). So remember—roll the dice, check ROF, check Hit Location.

Note that our colored die was greater than or equal to the white die. That means we scored a hull hit. Remember to check now,

© 2005 Multi-Man Publishing, LLC

before you rattle your dice around and forget. Next, we gotta roll on the IFT to see what damage we do to that tank (C1.55). The possibilities are:

- a KIA destroys the vehicle and allows for *Crew Survival (CS)* (D5.6, D6.9);
- a Final DR half or less of what is needed for a K/# results in a burning wreck (B25.14) and no CS (D5.6); and
- either a K/# or 1 greater than a K/# result is an automatic Shock or Immobilization, depending on whether we hit, respectively, the turret or hull (C3.9).

As usual, TEM (but not Airbursts vs BU CT AFV) modify our DR on the IFT. Seeing how we're firing Indirect Fire, the tank can't ever claim HD or HA against us. But if the tank was behind a wall, it would get the reduced TEM (C1.52) instead of HD status. Also, we get the following DRM for its armor (C1.55):

- If all AF are ≤ 4 we get -1 on the IFT.
- If the vehicle is OT we get a -1.
- If all AF are ≥ 8 we get a +1 (and we better say our prayers).

"What happens if we either Shock or Immobilize the tank, Drill Sergeant?" Immobilization (D8.1) means the crew must pass a TC to avoid Bailing Out (D6.24) and the tank can't change Locations anymore. Shock (C7.4) means the tank is out of commission for the rest of the Player Turn, with a 2/3 chance of being out of commission for the *next* Player Turn, and, if so, 50/50 odds of being eliminated altogether, with no chance of Crew Survival, come the Player Turn after that.

In summary, we can roll really low and make the tank a burning wreck, or roll moderately low and turn the tank to a wreck. Or we might Shock or Immobilize the tank. Or have no effect. So. What sort of modifiers do we have to our DR? "We get -1 for the tank having all AF ≤ 4, and no TEM since it is in the open." Right. And what do you roll? "A nine, modified to an 8. No effect." Well, a mortar shooting at a tank is often a crap shoot. Against this light tank, we needed to roll a 4 or less for any effect.



■ Okay, it's the tank's turn again. It looks like it's going *Crew Exposed (CE) (D5.3)* for some reason—either it wants to take advantage of the Road Movement Rate, or its commander is a little reckless! And it's spending a MP to Start (D2.12). Let's do that tank the courtesy of firing at it before it scoots out of our sight.

What do we need? "Range is 3 hexes, base TH is 7. C5 is +0. C6 gives us Case J (+2), Case N (-2), and Case P (+1), for a total DRM of +1. Leader Modifier is -1. We need a 7 TH." Er, not quite. A vehicle that just Started is not a Moving Target according to the fine print in D2.12 and C.8 So Case J doesn't apply until the tank moves into a new hex. You need a 9 TH. Roll. "We get a 6, colored die is 1, so we hit the tank and maintain ROF." Good.

And guess what? We have a new case to look at. This time, we're hitting the tank with its Crew Exposed. This means we can roll to damage the tank *and* damage the tank commander and any hypothetical passengers or riders. Just as if there were personnel in the same hex as the tank, we resolve this as a General Collateral Attack (A.14B) because we are firing at the hex with Area Target Type, except that you only affect PRC if you hit the tank. We roll the dice once on the IFT, look at the results vs the tank, then use the *same* DR to resolve an attack against the exposed crew. The crew receives a +2 modifier for cover from the tank, called a CE DRM (D5.31). This is instead of the hex's TEM, except you would count Air Bursts.

In addition to figuring the wreck/Shock/Immobilized effects on a tank, we also check the effects on the crew. If the crew fails a MC, the tank is Stunned (D5.34). This forces the tank to BU and Stop, and not fire for the remainder of that turn. The crew is also cursed with a +1 Stun counter for the rest of the scenario, which affects any vehicle crew's TH, MC, TC, IFT, CC, and Overrun DR. Bad day for the treadheads.

If the crew suffers a KIA or Casualty Reduction, the tank is Recalled with a +1 STUN counter (D5.341), and must BU and Stop like before. When it starts again, it must try to exit the map off a Friendly Board Edge as quickly as possible by spending the least amount of MP it can. It could stop only long enough to unload passengers. "But Drill Sergeant, wouldn't the KIA result also wipe out the tank?" Usually Dunn, but not always. Remember the crew checks with the +2 CE DRM instead of whatever TEM the tank had—a heavily armored tank in rubble would get a +4 DRM while the crew gets only a +2.

So what do you roll for results after that hull hit we scored? "On the 4 FP column, we roll a 3!" Great! But don't forget your -1 for the tank having all AF less than or equal to 4, so your modified DR is a 2. First the tank—that's an automatic Immobilization for it. The Collateral Damage rule (A.14) says we affect the crew subsequent to all results of the attack against the vehicle. So next the crew takes an immediate Immobilization TC (D5.5) to see whether it bails out. The Germans pass, so they stay in the tank. Now we check for the Collateral Damage on the exposed crew. A DR of 3, +2 for CE DRM, is a 5, or 1MC. The Germans roll a 9, or "nein!" in this case, and fail their morale check. They are Stunned.

You still have ROF. "Still need a 9 TH, and we roll a 10. No ROF." That's okay, we know the tank isn't doing anything for at least a Player Turn or so.

Well, we've seen how to shoot a lightly armored tank. What would be different if it had been a King Tiger? "Instead of the -1 DRM for all armor being less than or equal to 4, we would have had a +1 because all armor would have been greater than or equal to 8." "But the tank would have been easier to hit in the first place, because it is a Very Large target." Okay, so we would hit it because it's hard to miss. But before we needed to roll a 4 or less on the IFT to even affect the light tank, and against this monster we'd need a 2. And we could try for a Collateral Attack if it was driving around CE. Not great odds, but a light mortar still has the option if you're desperate.



■ I want to take a moment here to talk about Open Topped (OT) AFV. For the most part we treat them exactly like any other AFV, except for the -1 modifier for IFT damage that the chart in C1.55 gives us. But if we were fortunate enough to catch an OT AFV in the woods, where it would suffer Air Bursts (D5.311), its crew would be Vulnerable and get no protection from the vehicle, not even the CE DRM and not even if BU. The crew would take a hit just like Infantry, and would suffer any results from KIA down to PTC. And if they failed a morale check, they'd rout

© 2005 Multi-Man Publishing, LLC

from the vehicle, just like us foot soldiers. Furthermore, such an AFV is treated as unarmored vs our mortar, with our attack against it, but not its crew, treated as if the AFV were a truck—but with no Air Burst TEM.





■ There's one more target type I'd like to mention—Guns. Barring unusual circumstances, a Gun, including a mortar on a $^5/_8$" counter, that is still where it originally set up at the beginning of a scenario is Emplaced (C11.2) with a +2 TEM. Even if a Gun loses its emplacement because it is moved during a scenario, it may still provide some protection for the crew. AT and INF Guns are built with Gunshields (C11.5), which normally offer their crew a +2 DRM through their covered arc. Against Indirect Fire, though, a Gunshield offers only a +1 DRM. Mix that with Airbursts, and a Gun might suddenly regret setting up in Woods.

All mortars can be destroyed like any other SW—either deliberately during any PFPh/DFPh (A9.73), or by IFT (A9.74), OVR (A9.74), and CC (A11.13) results. A mortar on a $^5/_8$" counter, like all Guns, is automatically destroyed and its crew eliminated by any CH (C3.71).

And one last thing. Before you run off and start using Captured mortars from the enemy, there are two things to remember. First, your X#/B# is decreased by two and the original B# is now an X# (A.11). Second, you reduce your ROF by one (A21.12), and add +2 to your TH DR (Case H). These same penalties apply if I ever catch you dogfaces trying to use a $^5/_8$" mortar that should be manned by a trained Crew. And if you have the audacity to try to use a Captured $^5/_8$" mortar, you suffer both the penalties. I don't want to stand around you when you're trying that.





■ Well, boys, that's your indoctrination on light mortars and basic Ordnance principles. This lesson doesn't cover every last rule, though. Terrain often has special cases for Indirect Fire, Ordnance, or mortars, and I recommend you look up anything you're unsure of. We've also broached a lot of the rules that are the backbone to understanding Ordnance in Chapter C. There are some more rules you need to master before trying out some of the larger mortars on $^5/_8$" counters. But those rules apply to all other Guns, too, so only those of you that go on to Advanced Ordnance Training need to concern yourselves with that knowledge. If you master the situations we've talked about here, you'll open up a whole new collection of scenarios that you can participate in.

DAY EIGHT: GUNS AND ADVANCED ORDNANCE PRINCIPLES

4

■ **TEN HUT!**





At ease. Gentlemen, you have been chosen exclusively from the ranks of the Infantry to receive special training to become a crew. You should consider this a great honor. Infantry crews are always considered Elite (A1.123), and are expected at all times to act that way. The front of your counter shows you have a FP of 2 up to a range of 2, but your training will hopefully keep you from ever actually needing this. You have the same Morale Level as an Elite unit from the Infantry. If you look at the back of your counter, the box around your ML means you also have the ability to Self-Rally (A10.63). You guys will work together as a team, and I am here today to train you in the proper use of crew-served weapons.

Notice that your crew counter has two men depicted on it. This means you take up as much room in a Location or in a truck as a half-squad. Being a crew, you can operate any friendly crew-served weapons with no penalty for Non-Qualified Usage (A21.13)—unlike just any yokel Infantry squad that tries to operate a cannon.

Let me introduce myself, I'm First Lieutenant Huntington. Although I'll be instructing you on the ins and outs of ordnance, neither I nor any other leader can apply a leadership DRM to help you or any other crew fire a Gun. The only ordnance a leader can influence is SW ordnance (A7.531)—and even those have exceptions. After this training, if any of you think you can't handle a Gun on your own, without me spoon feeding coordinates to you, let me know now and I'll submit your paperwork for re-admission to the Infantry. Anyone? Good.

Before we get into your lesson, it is important for you to know two definitions. First, can anyone tell me what "*ordnance*" is? Anyone? "Sir! Ordnance is any weapon that requires a To Hit DR, Sir!" (C.2) Exactly right. This includes all sorts of weapons—mortars, bazookas, artillery, and even machine guns when they are shooting at an AFV. Now that you know ordnance has to roll to hit, can anyone tell me what a "*Gun*" is? "Sir! A Gun is any non-vehicular weapon depicted on a $^5/_8$" counter (C2.1), Sir!" We're all Elite here, Goetz, you don't have to show off. Remember that a vehicle's non-MG MA is also a Gun, although not one you clowns will be operating.

Being a crew, you need to realize that you're not like everybody else in the Infantry. A crew is immune to ELR Reduction (A19.11), and is immune to Heat of Battle results (A15.1). When you are firing ordnance, you are also immune to Cowering (A7.9). I never want to see any of you thinking you're the next John Wayne and charging at the enemy. And don't ever slink away from your main mission of keeping your Gun fully manned. I expect each of you to know that your job is to crew your weapon, and I expect you to do it well. Meet me over in hex 4K4. Fall out!



■ TEN HUT! Gentlemen, at ease. I'll bet some of you have not even had more than a passing glance at a $^5/_8$" weapon before. This, boys, is a Gun. Ordnance on a $^5/_8$" counter. This is a standard issue 57mm AT Gun, with which Uncle Sam expects you to knock out enemy tanks, trucks, horses, and Infantry. A lot of what you've previously learned from your Drill Sergeant about mortars will still apply when using a Gun.

Firing ordnance, whether a SW or a Gun, is a two step process. First you roll a *To Hit (TH) DR (C3.3)*. If, after all DRM, the Final DR is less than or equal to your Modified TH#, you score a hit. Then you make another DR to see what the effects are.

© 2005 Multi-Man Publishing, LLC

Checks for Special Ammunition are the same as they were for mortars, as are checks for ROF, malfunction, and repair, and many other rules you've already been taught. Unlike a SW mortar, an Infantry Leadership Modifier never applies to your TH chances (D3.4). Get to your posts on the Gun. Put your crew counter underneath the 57mm AT Gun counter to show that you're the crew here, just like you would do with a SW. When you are manning a Gun, you and it are equivalent to one squad for stacking purposes (A5.5).

I want you all to be very familiar with how Guns work, and not just for the sake of firing field artillery. When you start looking at AFV, you'll see that the rules you learned for Guns are also what you need to fire the MA (D1.3) of a tank.

First, why is this on a $^{5}/_{8}$" counter? "So you can put more useless information on it, Sir?" Watch your mouth, Slotwinski. Well, there's lots of reasons. But first you need to show which way the Gun is pointing. When you fire a SW it's usually not important which way the counter is facing. For Guns, though, this is vital. These weapons are a little too big to whip around to a new target as quickly as you can with a SW. Most Gun counters point their muzzles to the lower right corner to show which direction the Gun is facing. Position your Gun so the lower-right corner points to hexspine L3-L4. This shows your Gun is pointing due east. This hexspine defines your *Covered Arc (CA) (C3.2)*—a 60° field of fire that covers all territory between and including the L3-M3-N2-O2 hexgrain to the L4-M5-N5-O6 hexgrain, and as far out as your maximum range and LOS will allow. You can only shoot at a target that is in your CA. If you spin the Gun one hexspine counter-clockwise so it's pointing at the K3-L3 hexspine, your new CA runs from the K1-K2-K3 hexrow to the L3-M3-N2-O2 hexgrain. Turn the Gun back to face east.

Normally, you *could* turn your Gun's CA to fire at a unit that appears on your flanks, but you can suffer some heavy TH DRM for turning to shoot. If you want to change your CA, but you don't have a target, you can turn at the end of a friendly fire phase if you still theoretically could shoot (not counting Intensive Fire, which we'll talk about later).

For example, say it's our DFPh, and even though you don't have anyone in your LOS to shoot at, you hear the battle coming your way. You could turn the cannon any number of hexspines to face this oncoming threat even though you didn't shoot. Another example. Say during your PFPh you shot at the only unit in your LOS, and absolutely pulverized it. If you maintained ROF, but didn't have any new targets to take a shot at, you could take this opportunity to change your CA.

Be sure to notice that the A12.121 Concealment Loss/Gain Table says that changing CA *is* a concealment loss activity if any Good Order Enemy units are in LOS. So if you're setting up a Gun in some sneaky Location before a scenario begins, choose your CA carefully.

Now let's look at the counter itself. The upper right corner tells us this is an AT Gun, but don't feel you are restricted to firing at tanks. Under the AT, we see "M10" in a white dot. This M# represents the *Manhandling Number (C2.27)*, which we'll discuss later. Suffice it to say this represents how easy it is to haul the Gun around, just like PP do for SW. Unlike PP, though, the bigger the M#, the lighter the load. The white dot on the right shows your *Gun Target Size (C2.271)*. White means your cannon is a Small Target; a red M# would mean it's a Large Target, and neither red nor white means normal size. We have a ROF of 3, which works just like it did for SW. In the lower left corner, we see the Gun Caliber. Yours is a 57mm; underscored means you can't fire HE (but it's starred, so we'll check the back of the counter in a moment). The L means your Gun has a *Long Barrel Length (C4.1)*, giving you some bonuses for longer-ranged shots.

Flip the counter over. Here we see Repair and Breakdown numbers, just like a SW. In the lower left corner, we see this Gun is a *Quick Set-Up (QSU) Gun (C10.23)*, which we'll look at more closely when we talk about moving the Gun around. And across the top, you see Special Ammo Depletion Numbers, which by themselves should remind you how important it is to read the Chapter H notes for anything you're taking out into the field.

Chapter H tells us that HE and APDS ammo are available as Special Ammunition for this Gun in Europe for 1944. APDS is a typical example of Special Ammo, but having HE as Special Ammo is somewhat unusual. Most Guns carry a lifetime supply of both AP and HE. To use Special Ammo, you have to make a TH DR less than or equal to whatever your Depletion Number is on the back of your ordnance counter. In your case, you have to roll 7 or less to give 'em some HE. If you roll more than your Depletion Number, then you're out of HE ammo for this particular Gun for the rest of the scenario. If you roll exactly 7 (i.e., your Depletion Number), you get HE for this shot only. The good news is, if you roll over your Depletion Number, no shot occurred. It's as if you haven't even fired your weapon yet—unless you roll high enough to Malfunction your weapon.

So what other information should you know about this Gun? Not everything is printed on its counter. There's a handful of general rules that apply to most Guns most of the time:

- Unless a Gun specifically lists its range, assume it can fire as far as you can see. If you really need to know a Gun's maximum range, it will be listed in the Ordnance Notes table. Our gun has a maximum effective range of 247 hexes (just under 10,000 meters, or almost eight board lengths).
- If the counter doesn't say otherwise, assume it has a Breakdown number of 12 (C2.28), just like a SW.
- Because this is an AT, it has a Gunshield (as do INF Guns (C11.5)).
- Most Guns can *Intensive Fire (IF) (C5.6)*, which means they can fire once more in a phase after their ROF is used up—with an increased chance of malfunctioning and an increased TH DRM. This is similar to Sustained Fire with a MG.
- Non-Turreted (NT) Guns don't have a 360° mount of some kind and (except for mortars) have their ROF reduced by one on their next shot if they have to change their CA to fire at a target. This is called *Conditional ROF (C2.5)*. A Gun with no ROF possibilities would be marked with an Intensive Fire counter, meaning it can't Intensive Fire.
- You can't fire a Gun if it's been moved to a different hex this Player Turn, unless it's a Main Armament for a vehicle (C2.8), like the 75mm Gun on a Sherman. A crew could conceivably move and try to Recover an unpossessed Gun, and fire it during the AFPh (A4.41).
- Guns can only fire once during the AFPh—no ROF and no IF allowed (C5.2), unless you declared you were using Opportunity Fire during the PFPh.
- If we were the Scenario Defenders (as defined in the Index), you could choose a hex to Bore Sight (C6.4).

© 2005 Multi-Man Publishing, LLC







■ Before we try shooting at targets, let's first look at how you set a Gun up for a scenario. This is important. Not just because you might be getting shot at during your target practice, but because some of your targets are going to be other Guns.

First, where are Guns *not* allowed to set up (C2.7)? You can never put a Gun at any level of a building above the ground floor (B23.423)—unless that Location is Fortified (B23.9). You can never set up a Gun in a Water Obstacle—unless it's in some kind of vehicle or boat, and dismantled or limbered if applicable. Any Small or Normal sized AT or INF Gun, and any other Small-sized Gun can set up in a building or rubble. There are many exceptions to these general rules when mortars are involved. Even the big mortars on $^{5}/_{8}$" counters can set up in Crags (B17.4), Graveyards (B18.43), Entrenchments (B27.1), and rubble. But mortars cannot fire from *inside* a building (B23.423), although they can fire from a Rooftop Location of a building (B23.85) *[EXC: roofless factory (O5.45)]*.

So where would you *want* to set up a Gun? A Gun that sets up on board can be *Emplaced* (C11.2) as long as it's not on a paved road (or hooked up to a vehicle). An Emplaced Gun gets a +2 TEM which can never be combined with any other terrain TEM, unless you're hit by an Airburst in woods (B13.3) for an additional -1 TEM. Only Infantry actually manning a Gun can take advantage of the Emplacement TEM. The Brass Sez that only a Gun manned by a *crew* can set up Emplaced and that only a crew or HS can claim Emplacement TEM, never a full squad.

"So what happens if we move the Gun, Sir?" Well, you lose Emplacement when it's moved. And if your Gun is not already set up at the start of a scenario, then it can never be eligible for Emplacement. But in either case you can still find cover. You and your Gun can always claim the TEM for whatever terrain you set up in. Furthermore, INF and AT Guns, like ours here, usually have Gunshields (C11.5). A Gunshield provides a +2 TEM to the crew if the incoming Infantry fire is through the CA of the Gun. Barring Airburst, you can never combine this +2 TEM with any other TEM—even the Emplacement bonus—and Indirect Fire reduces your Gunshield to just a +1 TEM.

One great thing about setting up a Gun: if you're Emplaced at the beginning of a scenario, then you and your Gun can set up HIP (A12.34). No need for a SSR, or Scenario Defender status, and no restriction on the number of units that qualify. It's your privilege simply for being a Gun and crew. You can even set up HIP in non-Concealment Terrain, but you would lose your HIP status and become merely concealed if a Good Order enemy unit within 16 hexes ever has LOS to your setup hex. Even regular old concealment is especially good for Emplaced Guns. If there's a Good Order enemy within 16 hexes that can see your Location, you *still* retain concealment when you roll TH provided the colored die is 4 or less; if your Good Order enemy is at least 17 hexes away, you retain concealment if the colored die is 5 or less. When you fire a HIP Gun within LOS of an enemy unit, you place it onboard. If the colored die of the TH DR is low enough, you retain concealment and cover the Gun with a "?" marker. Be sure to remember, though, that changing your Gun's CA *is* a concealment loss and HIP loss activity, as is firing IFE (C2.29).

Knowing that you can be HIP at setup, where would you want to put your Gun at the beginning of a scenario? "In Concealment Terrain, Sir." Yes, Emge, but some Concealment Terrain might be better than others. With all your trips through the To Hit tables when you were firing light mortars, you've never had to look at Case A very closely since the M2 mortar doesn't have a CA. This modifier applies if you are changing the CA of your Gun. Note that no matter how bad the TH modifiers are for changing your CA, they are *doubled* if you are in woods, a building, or rubble. So setting up in Concealment Terrain like brush, orchards, or grain is less restricting for a Gun than setting up in buildings or woods. And so long as you're going to rely on the +2 Emplaced TEM, you shouldn't care too much about the TEM of the Concealment Terrain where you set up. Of course, a stone building would boost your TEM to +3 (or +4 if Fortified), so you might have to consider setting up in such terrain despite the penalties for changing your Covered Arc. Enough about setup, I think you're about due for a little practice working through the To Hit tables.



■ Let's try shooting a couple of targets. Your Gun is in hex 4K4, with the barrel pointing at hex M4. So where is our CA? "Hexgrain L3-M3-N2, hexrow L4-M5-N5, and everything in between, Sir." Exactly.

First let's fire at a simulated German 4-6-7 squad in 4T3. You will fire HE using the Infantry Target Type, or ITT, (C3.32), not the Area Target Type (ATT) that mortars have to use. You could use ATT to fire HE at the 4-6-7, and if it were in a high TEM Location, it might even be easier to hit with ATT, but then the FP of any resulting hit would be halved, just like with mortars.

Remember that, unlike most Guns, the 57mm AT treats HE shots as Special Ammo, and it has a HE Depletion Number of 7. HE is the assumed ammo for most Guns firing against Infantry unless stated otherwise (C2.21), but because HE is a Special Ammo for you, you must declare it. Let's try a shot.

First let's calculate what you need To Hit. A lot of this should be familiar to you from your mortar training. Tell me what you read from your TH tables. Private Dunn, start with C3, and work your way on down. "Well, we are at a range of 9 hexes, so our Basic TH# against Infantry is ...umm." Hold on, you seem to be getting confused by the two TH numbers, the black numbers and red numbers. Some nationalities use black numbers, some use red. You can find which number to use on the National Capabilities Chart. Find the U.S. row and trace over to the "ORDNANCE TH# Color" column. Meier, since it is August 1944, what TH# color will you use? "Black, sir!" Very good. Note that those poor slobs who invaded North Africa had to use the red numbers. OK, continue with the TH tables. "Range of 9, black numbers, Basic TH# on the ITT is 7. None of the C4 modifiers apply to a L Gun at a range of 9 hexes."

Now, let's look at the C5 Firer-Based Hit Determination DRM Table. Have you the firer done anything to complicate this shot?

Case A: Firer outside CA per hexspine changed—you're pointed the right way.

Case B: Fire in AFPh—not you, you're firing in your PFPh.

Case C through C⁴: Bounding Firer—this applies to vehicles or when using an LATW, not to you.

Case D: Pinned Firer—you boys better *not* be pinned yet.

Case E: Fire within hex—not a problem, your target's way over there.

Case F: Intensive Fire—not on your first shot.

© 2005 Multi-Man Publishing, LLC

Case G: Deliberate Immobilization—only an option if you were firing at a vehicle.

Case H: Captured/Non-Qualified-Infantry—you're a crew, so this makes you qualified. Only in theory, though. I'll believe you're actually qualified when I see you hit something.

Case I: Buttoned Up AFV—not you, you're Infantry.

Quickly glance through the Other category, and make sure none of these penalties like CX apply to you. How are you doing? "None apply, Sir. We have zero DRM so far." Good.

Now let's look at the C6 Target-Based Hit Determination DRM table.

Case J: Moving/Motion Vehicle or Dashing Infantry—well, they certainly don't look dashing from here.

Case J^1 through J^2: Defensive First Fire vs Moving Vehicle—no, this is an Infantry target.

Case J^3 through J^4: FFNAM/FFMO—no, they're just sitting there, waiting for your shot.

Case K: Concealed Target, also known as Area Fire (C.4)—no, they've been spotted. Notice this is the only penalty that ordnance pays for shooting at concealed targets, instead of halving the FP like you do with Small Arms or machine gun fire.

Case L: Point Blank Range—that'd be within two hexes. You're not so lucky.

Case M: Bore Sighted Location—We aren't Scenario Defenders (as per the Index), so you didn't get a chance to Bore Sight (C6.4).

Case N: Acquired Target—This is similar to what you learned with mortars. For this first shot, though, you have no Acquisition.

Case O: Target using Hazardous Movement—no, they're just sitting there.

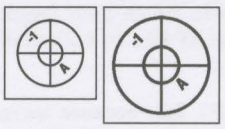
Case P: Target Size Modifier—only Guns and vehicles have a Target Size (C6.7). Men and the broad side of a barn don't.

Case Q: TEM—they catch us here. The Germans will get +2 for their wooden building.

Case R: LOS Hindrance—none.

And always check the "Other" DRM, although none apply just now.

So what do you need to hit, Dunn? "Under C5, no modifiers apply to us. Under C6, the only applicable modifier is Case Q, the +2 TEM for their wooden building. So our modified TH# is 7, with a +2 DRM—we will hit on a 5 or less." Very good. What do you roll? "We roll a 6, and miss. Our colored die is a 2, so we retain ROF." Also notice that your TH DR is less than 7, your Special Ammo Depletion Number, so you can keep firing HE ammo.



■ Because you've taken a shot at those Krauts, they become an *Acquired Target (C6.5)*. You get to place a $^1/_2$" -1 Acquisition counter on them. If you don't lose your Acquisition, your next shot will get a -1 TH DRM for Case N.

There are two kinds of Acquisition counters—smaller ones on $^1/_2$" counters and larger ones on $^5/_8$" counters. For an Infantry Target Type or a Vehicle Target Type, you mark your Acquisition with a $^1/_2$" counter. If you had declared Area Target Type, you would use a $^5/_8$" counter instead, to show that the *hex* is targeted instead of a particular unit or Location. If you're looking at units in the same Location that you previously Acquired, you can use *Bracketing (C6.52)* and switch between using Area Target Types ($^5/_8$" Acquisition) to attack the hex, and Vehicle or Infantry Target Types ($^1/_2$" Acquisition) to attack a unit in the hex, or vice versa. And so long as you're not trying to use a $^1/_2$" Acquisition against a concealed unit, you could use your Acquisition to attack any unit that was in the same Location as your previously acquired target.

Your next shot will get to use the -1 TH DRM, and after that shot your Acquisition counter is flipped to the -2 side. A -2 DRM is as high as you can get with Acquisition.

While we're thinking about Acquisition, let's look at the ways it could go away. Here's how you might lose your Acquisition on the Germans:

- You fire at another target (including using the Gun to Interdict a routing enemy).
- You malfunction the Gun.
- You move the Gun, or rotate its CA without firing at your Acquired target.
- The Germans move out of your LOS (in which case you keep Acquisition on their last in-LOS Location).
- You fire SMOKE (that includes WP), canister, or IFE (you can't actually fire any of these with this particular Gun).
- You are not in Good Order (that's broken, Berserk, or in Melee—so you *can* keep Acquisition if you are merely Pinned).
- You lose Possession of the Gun (in which case you'll have to answer to Supply Corps).
- You limber or unlimber the Gun (more about this later).
- You fire your inherent FP of 2 (including using your FP to Interdict a routing enemy).
- You attack in CC.
- The Germans die (then we'd still have Acquisition on their last known Location).
- You die.

You've got ROF, so shoot again. "We get our Acquisition, so this time we need a DR of 6 or less to hit. We roll, and get a 7. Colored die is 2, so we maintain ROF. Our Acquisition becomes -2." And you rolled a 7. That means you just fired off your last HE round for this scenario. Gentlemen, you just made the rest of my examples a *little difficult to demonstrate*. Blasted recruits. We're going to have to bend the rules a little bit here, and get a special

© 2005 Multi-Man Publishing, LLC



shipment of HE—just so you have enough to finish your target practice. Call this a SSR where your 57mm AT has an unlimited supply of HE.

"Sir, couldn't we fire at the building with AP? Just because we're out of HE, does that mean we can't hit them anymore?" Firing AP is an option, but it's not too effective against Infantry. It'll take a few minutes for supply to run some more HE ammo out to us, so while we're waiting, let's see what would happen. Go ahead and shoot an AP round at them. "We have -2 Acquisition, so we need a DR of 7 or less to hit. We roll, and get a 6, with the colored die equal to 3. We hit and maintain ROF."

Okay, now that you've hit, let's see what you've done. Normally, if you'd fired a HE round, you would roll for an effect under the 6/50 column of the IFT. But because you're firing AP against Infantry, you check your Gun's *HE Equivalency (C8.31)*, and find that AP ≥ 37mm has a HE Equivalency of 2. Hard to affect a whole squad when you're firing a slug two inches wide. Let's make your DR on the IFT to see how Jerry takes the shot. "Sir, that would be 2 FP with a +2 DRM for the TEM." Nice try, Hadady, but we are using the ITT, not the ATT. You already accounted for the TEM in the TH process. Back when you were firing your mortar on the ATT you ignored the TEM for the TH roll and applied it to the effects. For the ITT and the Vehicle Target Type, the TEM applies to the TH roll, not to the effects (C.3). Continue. "We roll a 7, no DRM apply, so we have no effect." Frustrating sometimes, isn't it? Even more insulting, if you fire AP at a target during their MPh, you don't even leave Residual FP. Let's not bother with continuing your ROF.

■ Now that you've seen how Acquisition works, there's something more for you to consider as you set up your Gun. Check to see if you're lucky enough to be the Scenario Defender—the Index says that means all of your opponent's units enter from off-board and you don't have to capture any terrain that you don't already own to win the scenario. As a Scenario Defender, you can choose to *Bore Sight (C6.4)* your Guns (as well as any AFV MA, and any MMG, HMG, or light mortar within its normal range).

Bore Sighting is sort of like a pre-Acquired hex, and gives you the Case M -2 DRM from the TH table. Before a scenario begins, record a Location within your LOS and within 16 hexes as your Bore Sighted Location. If your opponent moves a unit into this Location you instantly get the -2 TH DRM against it, without going through the process of shooting a couple of rounds to Acquire it first. You can't combine Bore Sighting with Acquisition, though; it's either one or the other.

Bore Sighting is great if you see a choke-point that your opponent needs to pass through, like a road intersection. It is a nice benefit if you *think* you know where he'll be going, like a building he needs to capture (but you can only Bore Sight the ground level of a building [C6.42]). It's nice to instantly get the equivalent of -2 Acquisition even if they just popped into your LOS. A nasty trick—*if* it works.

■ You have a new supply of HE rounds. I want you all to know that normally this would never happen, and we had to send out for these simply because you used up your supply so fast. "Maybe we shouldn't be trying to use an AT Gun against Infantry. Sir." Sure, Lyman. And seeing how your Gun is supposedly designed for shooting at tanks, maybe the Germans would be polite enough not to send their Infantry after your position here. One does what one needs to do, Private.

Now that it's the next PFPh, let's try a longer range shot. See the simulated squad over in the woods in 4AA4? Trace your LOS along the hexspine, just between the building you were focusing on before and the woods right next to them. Now do you see them? What would you need to hit? "Range is 16 hexes, Infantry Target Type gives us a Basic TH# of 6, modified +1 for a L Gun and -1 for firing a Gun ≤ 57mm, giving a modified TH# of 6. Case Q gives them a +1 DRM for TEM, and Case R gives them a +1 for Hindrance from the Grain in hex 4W4. We need a DR ≤ 4 to hit, Sir." Yeah, not too promising. But before you shoot, let's look at another option.

So long as you are firing HE rounds, you could use the *Area Target Type*. That means your Basic TH# might get better, especially at longer ranges. There's also a bunch of Firer-Based and Target-Based Hit Determination DRM that no longer apply (marked by the red daggers on the left margin of the charts). You would no longer use Case Q (TEM) for your TH DR. So look through the TH tables again, and tell me what would you need? "Area Target Type at a range of 16 hexes has a Basic TH# of 8, C4 gives us a -1 for a Gun ≤ 57mm, and a +1 for a L Gun for a modified TH# of 8. Case Q for TEM no longer applies, but Case R still gives us a +1 for the Grain Hindrance. We need a 7 or less, Sir." Much better chance of hitting. Area Target Type also gives you the benefit of affecting all in-LOS targets in the hex (C3.33), even if in different Locations.

But of course there's also disadvantages to using the Area Target Type. If you hit, the TEM that you ignored for the TH DR now applies to the IFT DR (C3.331). Also, because you're using Area Target Type, all of your ROF is used up on the first shot (C3.33). And, what's most dramatic if you do hit, you must halve your FP on the IFT from the 6/50 column to the 2/30 column. So you've increased your chances to hit, but had to drastically decrease your chances of actually doing any damage once you hit.

Go ahead and roll for that 7 you needed. "We get a 7. We get no ROF because this is Area Target Type." Right. But you do get to mark the hex with a $^{5}/_{8}$" -1 Acquisition counter. And with a DR of 7, you would have once again used up your HE Special Ammo. You'll keep drawing rounds from your special stockpile here, though. Roll for your effects on the IFT. "We roll a 10 on the 2/30 column, and have to add 1 to the DR for TEM. No effect." Well, not too surprising. But there's more trickery that you can still pull off.

Our Player Turn ends, and during the German Player Turn the squad in 4AA4 stays put. He wasn't too worried about that 2/30 column, it would seem. But if you can get another shot, you can use Bracketing (C6.52) to convert your shot from Area Target Type to the Infantry Target Type. In other words, switch your $^{5}/_{8}$" Acquisition counter on the hex to a $^{1}/_{2}$" Acquisition counter on the squad. This way, you keep the advantage of the Acquisition you placed last round, and that will help your TH DR a little bit more.

Okay, so you're using Infantry Target Type again. What do you need to hit? "Basic TH# for ITT at a range of 16 hexes is 6, -1 for the range, +1 for a long barrel—modified TH# is 6. For DRM, C6 gives us -1 for Acquisition, +1 for TEM, and +1 for Hindrance. We need a 5, Sir." And what do you roll? "We roll a 5, colored die is 4 so we hit but there's no ROF. And we flip the Acquisition counter over to -2." Excellent.

Now you roll on the 6/50 column of the IFT, with no modifiers. What do you roll? "We get a 7, which is a NMC." Germans roll a 6, and pass their MC. But now their position isn't quite as safe as it looked last turn, is it? Nice work, boys.

© 2005 Multi-Man Publishing, LLC

■ Let's stop a moment. Remember when you learned about *Critical Hits (CH) (C3.7)* with mortars? "Yes Sir! You roll snake eyes, you double the IFT equivalent, and everybody dies." Er, more or less. Well there's good news and bad news about CH with the Infantry Target Type. The good news is it can happen without rolling snake-eyes. The bad news is, it takes a little more calculation, and often a snake-eyes won't get you a CH. First, recall how it usually works with a mortar using the Area Target Type. If you didn't need a 2 just to hit your target, then rolling a 2 means you got a CH. It works just the same with Guns when using either Area Target Type or Vehicle Target Type. But when using Infantry Target Type, you need to start paying closer attention.

With Infantry Target Type, if your Final TH DR is less than half of your *Modified TH# (C4.5)*, you score a CH. You need to look more closely at this step. The Modified TH# is your basic TH# from C3, then you add in only the C4 Gun & Ammo Basic To Hit Number Modifications. C5 and C6 from the TH tables are DRM—which literally means that they modify the DR, not the TH#.

On that last shot, your Modified TH# was 6. To roll less than half of this, you'd need to have a Final DR of 2. "How is this different from a regular CH, Sir?" Notice that you need a *Final* DR of 2, not an *Original* DR of 2. The last shot had a total DRM of +1 from the C5 and C6 tables, so even if you rolled snake-eyes, your Final DR would be a 3, and in this case you wouldn't necessarily score a CH. You would still have a chance, however, with a subsequent dr = 1 or ≤ half the Modified TH#.

"Then there's no way for us to get a CH against those guys? What a rip-off." Pipe down Goetz. It isn't *that* bad. When using the Infantry Target Type, an Original 2 results in a *possible* CH. You make a subsequent dr and if that dr is ≤ half the modified TH# (or equal to 1), you get a CH. In our case, we would have needed a dr of 1, 2, or 3.

But we've seen cases where the DRM can add up to some big modifiers to your advantage. Let's look back at our simulated squad in the building at 4T3. What would your shot be if they spent 1 MF and moved out to S3? Assume this is not Assault Movement. "Range is 8 hexes, so the Basic TH# is 7. C4 has no modifiers at this range." Okay, stop right there. So your Modified TH# is 7. This means you need a Final DR of 3 or less for a CH. Now, what DRM apply? "Are they Dashing?" No, just moving normally. "Then we'd get Case J^3 and J^4 for FFNAM and FFMO, which is a -2 DRM." Right. Now the DRM applies *before* you look at your CH chances. You don't need to roll an *Original* 3 or less for a CH, you need to roll a *Final* 3 or less. Which means for this roll you'd need to roll 5 or less to score a CH. Now do you see how sweet this can get?

A quick rule of thumb: If you roll low (like a DR of 4 or less), back up and think about what you need to score an Infantry Target Type CH. Or, if Tables C5 and C6 leave you with a negative DRM, then step through the whole process. And the process is:

- Find your Basic TH# from Table C3.
- Calculate your Modified TH# from Table C4, and calculate the Final TH# needed for a CH.
- Roll the dice.
- Now apply any DRM from Tables C5 and C6, and see if you score a CH.

And that's all there is to it.

If you do get a CH, you double your IFT equivalent. Your 6/50 would jump to the 12/70 column. A CH using Area Target Type goes from half FP to double FP (or four times the usual FP for that target type). And as if this wasn't bad enough on your target, any positive TEM it claimed is reversed to a negative TEM for the CH IFT resolution. So if you scored a CH on that squad in the woods, its +1 TEM would become a -1 on your IFT DR.

A Critical Hit doesn't necessarily affect every unit in a Location—if there's more than one to choose from, use Random Selection (A.9) to select your victim. Everyone else is still affected, but on the regular IFT column using the same IFT DR.



■ Now let's try shooting at a vehicle. We have a parked German Opel truck down in 4P10. Use the Vehicle Target Type on the C3 TH Table. Because this is not an AFV, you'll probably do more damage if you fire a HE round at it. Also notice that this vehicle is outside your CA, so your first shot will require swinging your Gun around to point at it. Look through the TH tables and tell me what modifiers you see.

"Range is 9 hexes, so the Vehicle Target Type gives us a Basic TH# of 9. C4 has no relevant modifiers. Case A 'Firer outside CA' is gonna apply, right Sir? What do we do?" Okay. Ordnance that uses a Covered Arc has two different ways to swivel around. Some high-tech Guns, like the M1 40mm AA Gun, are on a 360° mount (C2.3). These sorts of Guns pivot easily, and are considered Turreted Guns (T) for Case A modifiers. You can recognize a (T) mounted Gun by the white circle going around the Gun depiction on the counter. Your Gun, however, isn't designed for spinning quickly, and you treat it as a Non-turreted (NT) Gun. Those are the only two modifiers that apply to field artillery changing its CA—that middle modifier (ST) stands for Slow Traverse; it's a tank thing you might learn about another day.

Under Case A, you see a NT Gun gets a +3/+1/+1 modifier. This is the TH DRM the Gun gets for each hexspine it rotates. In your case, the first 60° turn to face hexspine K5-L4 would be a +3 DRM. If you rotated another hexspine for this shot to point at hexspine J4-K5, you'd get an additional +1 DRM, and if you rotated a third hexspine (and turned your Gun around to point due west towards hexspine J3-J4) you'd have *another* +1 DRM. So if you had to turn your Gun 180° to fire at someone behind you all in one shot, you'd start with a +3 +1 +1 or +5 DRM just for turning the Gun all the way around. Fortunately, you're only turning one hexspine to hex L5 so you'll get a +3 DRM for Case A. Remember, had you been in a building, woods, or rubble hex, this modifier would be *doubled*. Now keep reading down the TH Tables.

"Case A is +3. Case P, Target Size is, er...normal, because the Opel has two black stars on its right edge. Case Q is +0 for TEM, but Case R is +2 for Hindrance from the Grain in 4N8 and O9. So our Modified TH# was 9, +3 DRM for C5, +2 DRM for C6. We need a 4 or less." Correct. And roll. "We roll an 8, colored die is 2, so we miss but maintain ROF." Barely. Remember that by changing your CA, you are using Conditional ROF (C2.5) and have to reduce the ROF of your Gun by one. Mark your target with Acquisition, and you get another shot.

"We don't have to pay for the Case A modifier again, do we?" No, we've already turned the Gun and applied that modifier for the first shot, so it doesn't apply to this shot (C5.12). What do you need to hit? "Modified TH# of 9, C5 is +0. For C6, Acquired Target gives us a -1, and +2 for Hindrance. A total of +1

© 2005 Multi-Man Publishing, LLC

DRM. We need an 8 or less TH." Right. And roll. "We roll a 7, colored die is 3, so we hit and keep ROF." Dandy.

All Direct Fire hits against vehicles are resolved on the appropriate *To Kill (TK) Table* (C7) for the type of ammo you fired. To resolve an HE hit, you look on the C7.34 HE & Flame To Kill Table. "Aren't we supposed to use the ★ column on the IFT?" No, you'd only use that if you had fired Small Arms at the truck, or had hit the truck using the Area Target Type. Looking at the HE TK Table, your Gun falls into the 50+ column. So against an unarmored vehicle you have a TK# of 10. Now take a quick glance at the C7.2 Obtaining Modified TK# Table—none of these affect your shot. Look at the Unarmored Vehicle Destruction Table. This shows us what your DR means, compared to your TK#. If you roll exactly the TK number (for this shot that would be a DR of 10), you only Immobilize the truck. If you roll < your TK# (in this case 9 or less), you Eliminate the truck, and flip it over to its wreck side. And if your DR is ≤ half the TK# (in this case if you roll a 5 or less), you not only Eliminate the truck, you replace it with a burning wreck. Roll your effect.

"We roll 10. Er...we only immobilized it, Sir." Well, that's okay. You still have ROF. Notice that your last two TH rolls were either equal to or above your HE Depletion numbers, and normally you wouldn't have any more HE rounds to fire. So, for the practice, let's fire off an AP round and see what's different. What do you need to hit? "Like our last shot, the Modified TH# is 9, C5 is +0. For C6, Acquired Target is now -2, and +2 for Hindrance. A total of +0 DRM. We need a 9 or less TH. We roll a 9, colored die is 5. We hit, and lost ROF."

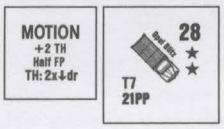
Excellent. Now this time, instead of looking on the HE To Kill Table, look at the AP To Kill Table. Look at the bottom of the chart, under "Unarmored Targets," and look along Gun Size until you find the 37-57mm range. That says you have a Final TK# of 8. The Obtaining Modified To Kill# Table doesn't apply, since 8 is your *Final* TK#. "Does that mean that a CH doesn't affect our TK#, sir?" Good question, Valerien. A CH vs an unarmored vehicle still doubles the Basic TK# on the pertinent TK Table (C3.71). Other than a CH, however, the Basic TK# vs an unarmored vehicle is the same as the Final TK#. Now, roll for effect just like you did for the HE shot. "That means we need to roll 8 or less?" Right.

"We roll a 7, and Eliminate the truck." Had any passengers been on board, they'd now roll for *Crew Survival (cs) (D5.6)*. On the back of the Opel counter, you see the cs# is 6, so any Passengers need to make a DR of 6 or less to get out alive. Because the truck is unarmed, it only has an Inherent Driver (D5.1) who never appears on the board as a separate counter. No need to worry about whether he survives or not, unless you're his mom. Of course, any hypothetical Passengers would have undergone a *Specific Collateral Attack (D.8A)* from your earlier shot that Immobilized the truck using the same effects DR. Of course, a DR of 10 on the 6 FP column would have been no effect. But there is no Collateral Attack vs anyone who survives the Elimination of their vehicle.

"Sir, don't some vehicles have a capital "CS" on the back of the counter?" Very observant, Valerien. That means the vehicle is armed and has an Inherent crew which can take counter form. Vehicle crews aren't Elite like Infantry crews, but they are qualified to fire Guns, whereas, even after I have trained you, you slobs would still have a tough time driving a tank.

■ There's something else you could have done here. Remember how you paid +3 to change CA? That's pretty harsh. What if you had to turn even further? "We'd add +1 for each additional hexspine, Sir." Right. And if you'd been in woods or a building, the modifier would have been doubled. Not good for your chances to hit. So instead of turning and trying a lousy shot, you could have *not* fired during our PFPh, and instead spent the phase to just change the Gun's CA to point at the truck. Then, during our AFPh, you could fire with only the Case B +2 modifier—+3 if in woods or a building (C5.2)—instead of all the modifiers from Case A (C3.22). I call this maneuver "Twist'n'Shoot." Of course, if you fire during the AFPh, you can't utilize ROF (C5.2) or Intensive Fire (IF) (C5.6). But it's an option to consider.

Another option to use in this situation is *Opportunity Fire (A7.25)*. Just like other Infantry, during your PFPh you can choose to be marked with a Bounding Fire marker to show that you're saving your shot for the AFPh. This is useful, for instance, if you think an enemy unit might drop its concealment to fire during its DFPh. If you declare Opportunity Fire during the PFPh, you can then shoot without the Case B modifier during the AFPh. You also would lose any CX counter and its +1 DRM that would have applied in PFPh (since CX counters are removed at the start of your MPh). Unlike Guns that didn't declare Opportunity Fire and find themselves firing during the AFPh, you still can use ROF and IF. But being an Opportunity Firer, you couldn't change your Gun's CA during your PFPh—your Gun is basically "frozen" until its big moment in the AFPh. You'd change your CA (and pay the applicable Case A DRM price for it) during the AFPh.



■ Okay, listen up. Hear that? There's another truck moving our way. And there it is, bouncing along in hex 4R2. Its counter is pointing at hexspine R3-S3, so it'll be moving into either S3 or R3 unless it turns or stops. Or blows up. Just like Infantry, you can shoot at a moving enemy vehicular target during its MPh. Swing the CA around and do your best. What do you need TH?

"Um, range is 7 hexes, so our Basic TH# using the Vehicle Target Type is 9. C4 has no modifiers for us at this range. In C5, we get a +3 for changing our CA back to the L3-L4 hexspine. Sir, does 'Bounding Firer' apply?" No, that's an Attacker's trick, used while moving. "Then no other C5 modifiers apply."

Okay, I see you're hesitating at the modifiers under Case J. Let's look at what's new under C6 Target-Based Hit Determination DRM.

You might be wondering why the chart mentions both Moving and Motion Vehicles. A Moving Vehicle is something you see during your Defender half of a turn. To be a Moving Vehicle, the vehicle must either enter a new hex during its MPh, use Vehicle Bypass Movement, or begin the turn marked with a Motion counter. Once a vehicle moves, it remains a Moving target through the end of AFPh. A Motion vehicle only shows up after your opponent's MPh when a vehicle that didn't spend an additional MP to Stop during its MPh is marked with a Motion counter. Your target, though, is Moving because it just entered 4R3 from R2. So you get the Case J +2 DRM.

Now look at Cases J^1 and J^2. If a vehicle just popped into your LOS, you get some TH penalties because you didn't see it coming. J^1 gives you an additional +1 if the vehicle has spent 3 MP or less in your LOS, alternatively J^2 gives you a +2 if the vehicle has spent ≤ 1 MP in your LOS. Note that J^2 is used instead of J^1, if it applies. How many MP has the truck spent? "One, Sir?" No. Look at your Chapter B divider. For a truck to enter Open Ground, it must expend 4 MP per hex—definitely not a fast offroad vehicle. So even though you've only seen him enter one

© 2005 Multi-Man Publishing, LLC

hex, it cost him 4 MP to enter that hex. That means neither J^1 nor J^2 would apply.

You can only fire once for each MP the truck spends in a Location (C6.17). So you have a choice: you could fire at him on his first MP in your LOS, and suffer a +4 DRM for Cases J^2. You could fire on him on his second or third MP in the same hex, and suffer +3 for Cases J^1. Or you could fire on him when he spends his fourth MP still in the same hex, and just suffer +2 for Case J. "Why would we ever think of firing earlier, Sir?" Well, if you wait until his fourth MP, fire, *and* maintain ROF, you can't use the ROF shot until he uses another MP. He might use his next MP to spoil your shot somehow. That's a call you have to make. "Well, the terrain he's heading towards is still in our LOS, so he isn't going to disappear. We might as well wait until the fourth MP is spent, and save our ROF if he keeps moving." Good. An AFV might dispense some Smoke or Bounding First Fire, but this is just a truck.

So what do you need to hit? "Modified TH# is 9, C5 gives us +3 for changing our CA, and by waiting until his fourth MP expenditure we pay only +2 from C6. Need a 4 or less to hit." Roll. "We roll 7, colored die is 3, so we miss, keep ROF, and mark him with a -1 Acquisition." Nope. Boys, you changed your CA for this shot, so your ROF is reduced by one. You lost ROF. It's all right. Just watch him drive.

What happens to your Acquisition when he moves? Remember back when you were firing mortars, you were using the Area Target Type and were targeting the whole hex. Anybody moving into the hex was in your Acquisition, and anyone moving out escaped. But with the Vehicle Target Type (and Infantry Target Type), your Acquisition stays with the target unit. So the -1 marker will stay on the truck. The truck spends 4 MP to enter R4, spends 4 MP to enter S5, and disappears from our LOS as it spends 4 MP to enter S6. Because the truck left our LOS, the -1 Acquisition counter remains in hex S5. If any enemy unit was foolish enough to move into that hex, you could immediately apply your Acquisition against it.



■ You've used HE and AP against Infantry and unarmored vehicles. Let's up the ante and try shooting at an AFV. And what do you know? Look what's coming down the road in hex 4S3. We got ourselves a PzKpfw IVH coming at us. It enters 4S3 from 4T2 with its bow and turret both pointing at the R2-R3 hexspine, so you're going to be shooting at its thickest armor. Stay calm, it's not much different than shooting at a truck. Unless you declare otherwise, everyone assumes you're firing AP at the tank because it's armored. What do you need to hit?

"Range is 8 hexes, on the Vehicle Target Type our Basic TH# is 9. C4 adds no DRM at this range. In C5, we're pointed the right direction, so Case A doesn't apply. In fact, nothing applies in C5. For C6, we get +4 for Case J^2 Moving and spending ≤ 1 MP in our LOS. Target Size Modifier is 0 for the tank. So we're base 9 with +4 DRM. We need a 5 or less."

Before you roll, I need to mention one additional condition. Your TH DR also determines whether you hit the tank in the hull—with its *Armor Factor (AF) (D1.6)* of 8, or in the turret—with its weaker AF of 6. If the colored die is ≥ the white die, you hit the hull. So just over half the time, that's where you'll hit. Otherwise, you hit the turret. Remember your TH DR now shows whether you hit, whether you maintain your ROF, and where you hit the tank, plus all the usual stuff like malfunction, sniper activation, Special Ammo Depletion if you fired it, and so on.

You will want to pay close attention to the AFV's Armor Factors, since they interact with your Gun's TK# and your DR to determine what happens to the AFV after a hit. Just under the AFV's MP are two AF numbers; the first is the Front hull AF, the second is the side/rear hull AF. The turret AF will be the same as the hull unless enclosed in a square (and it is higher) on enclosed in a circle (and thus lower).

Fire when ready. "We roll an 8, colored die is 2. We miss, and maintain ROF." Put your -1 Acquisition counter on the tank. Now you have to wait. Even though you have ROF, it has only spent one MP in your LOS. So you have to see what it does before you can shoot again.

The tank spends one MP to move into hex R3. You can shoot now. "Range is now 7 hexes, we still have a Modified TH# of 9. C5 has no modifiers that apply. In C6, now that he's spent 2 MP in our LOS we get +3 for Case J^1 Moving instead of the +4 for Case J^2. We also get the -1 for Acquisition, so the total DRM is only +2. We need a 7 or less TH." And roll. "We roll a 9, and miss again. Colored die is 3, so we keep ROF and flip over the Acquisition counter to -2." Gotta love these high ROF Guns, don't you?

The tank continues to come towards us, and spends 1 MP to move into hex Q4. Fearless, ain't he? Fire; maybe you can show him the error of his ways. "Range is 6 hexes, so we have a Modified TH# of 10. C4 and C5 still don't modify our TH. C6 throws Case J at us for a +2, and we've seen the tank spend 3 MP so far, so Case J^1 still applies for a +1. We now get -2 for Acquisition, so we'll hit on 8 or less. We roll, and get a 6. A hit! Colored die is 3, white die is 3—so we keep ROF and hit the tank in the hull." Very good.

Now that you've hit, you need to roll a second time to determine the effect. Look at the C7.31 AP To Kill Table, and glance along the GUN SIZE row until you find your Gun. You're not a mere 57, you're further to the right under the 57L. Cross-reference that with the BASIC TK# row, and you see a 15. That's the power behind your punch. Take a quick look through the Obtaining Modified TK# Table, and see if any of these cases apply. You see this isn't a Rear Target Facing, isn't Aerial/DC/MOL, isn't a Critical Hit, and the Range modifier for AP (back on the AP To Kill Table) is zero at this range. Now look at the Obtaining Final TK# Table. This basically says you subtract your target's AF from your Modified TK#. Your TK# is still 15, and the frontal AF of a PzKpfw IVH *hull* is 8. Fifteen minus eight is seven. That's your Final TK#—the number you want to roll less than or equal to.

Now look over at the C7.7 AFV Destruction Table, under Bomb/Direct Fire. Looks a lot like it did when you shot the truck, doesn't it? If you roll less than your Final TK#, in this case a DR of 6 or less, you destroy the tank and flip it over to its wreck side (D10.1). If your DR is ≤ half the Final TK# (in this case 3 or less), the tank is not only a wreck, it's a burning wreck (C7.6). If you roll exactly the TK#, you either *Immobilize (C7.5)* or *Shock (C7.4)* the vehicle, depending on whether you hit it in the hull or turret respectively. You hit the hull, so a DR of exactly 7 would Immobilize the tank. And if you rolled one more than your TK# (in this case if you rolled exactly 8), you score a *Possible Shock (P.Sh) (C7.42)*. When using HE, one more than the TK is an automatic Shock. Let's examine these different results.

© 2005 Multi-Man Publishing, LLC

If a vehicle counter has a white wreck (D10.1) depiction on the back, it gets flipped over when you destroy it. Little vehicles, like Jeeps, don't even leave a grease mark big enough to bother showing on the board if they get eliminated. But most vehicles have a wreck depiction, and the hulk becomes a +1 Hindrance for LOS traced through a hex with a wreck in it (D9.4), and a +1 TEM for any Infantry hiding under the counter (D10.3). The wreck side of a counter also displays the *Crew Survival Number (CS#)* for the vehicle.

If you rolled half of what you needed to score a kill, you create a burning wreck. This automatically kills the crew and any passengers, with no need to check the CS#. A burning wreck causes Smoke (B25.2) with a +2 LOS Hindrance.

A hit that is equal to or,one greater than the TK number leads to some less certain results. I know you went over Immobilization and Shock as part of your light mortar training, so you may want to review your notes from that course. With a P.Sh result, the tank's crew must pass a NTC to avoid being Shocked.

Now that you've hit the tank, roll to see what the results are. "We roll a nine. No effect?" The shot bounces off their front armor. Hmm. Ah well, this happens. The tank spends another MP to move to hex P4.

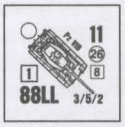
■ Let's try firing some of your Special Ammunition—APDS—at the tank. APDS gives you a higher TK#, as well as To Hit penalties at longer ranges. But the TH procedure is exactly the same as for AP. You've just seen the tank spend another MP, so fire. "Modified TH# is 10, +2 for Moving, -2 DRM for Acquisition, so we need 10 or less." Or 4 or less to fire APDS. If you roll higher than your Depletion Number, you lose your APDS, but it's as if you haven't even taken a shot yet unless you malfunction your Gun. You aren't marked with a Fire counter, so you could choose to fire at someone else. If this were your first shot in PFPh, you could even decide to move instead. Roll your dice. "We roll a 2!" Fantastic—that's a CH (C3.7). Always remember to check your dice. Here you've managed to hit, in the Hull, kept ROF, and can still fire APDS in the future. A CH against a vehicle doubles your Basic TK# (C3.72).

Look at the C7.32 APCR/APDS To Kill Table. This is similar to the AP To Kill Table. Your Basic TK# is under the D57L column (D for APDS), which shows it to be 18. Look at the CASE D TK# CHANGE rows here. Both APCR and APDS are modified by range, much more so than AP. At this range, you're not affected. So your Final TK# is 28 (18 times 2 [for the CH] minus 8 [for the tank's hull AF] equals 28). Since rolling half your Final TK number or less, a 14 or less in this case, results in a burning wreck, that tank crew should be a little worried.

What is your TK DR? "We roll a 12." Ouch. An original TK DR of 12 is always a *Dud (C7.35)*, and has no effect on your target. "That doesn't seem fair, Sir!" I know, but at least it never happens when you're firing at Infantry. Consider yourself fortunate that you still have ROF. Just think, with your CH and your Dud, you're actually having average luck.

■ Look at the PzKpfw IV now. It just popped off its Smoke Dischargers. Seems its crew got a little worried with that APDS shot you just bounced off the tank. Because it successfully fired its sD, the tank marks its hex with a +2 Dispersed Smoke counter, spending another MP in our LOS. You can fire at it again if you want. "Umm, is now the time? I mean, it's up to something. Maybe we should wait and see if we get a better shot, Sir." That's a good point. Let's wait and see what it does.

Sure enough, the tank is turning. It's now spending one MP to change its VCA to face the O5-P5 hexspine, but keeping its TCA pointing towards you and your Gun to take advantage of its better frontal turret armor. Looks like the tank might be ducking out of our LOS, so now's the time to shoot. "We'll try another APDS shot. Modified TH# is 10, +2 for Moving, -2 DRM for Acquisition, +2 for the Smoke, so we need 8 TH. We roll a 9, colored die is 5, so we miss." No, that's not right. You're firing Special Ammunition, so because you rolled over your Depletion Number, it's as if you haven't even fired yet. You now know you're out of APDS, but you can still act as if you hadn't shot yet. Try loading AP. "Still need an 8 to hit it, we roll 11. Missed, no ROF." Hmm. And just like we thought—the tank spends its next MP to pull into P5 and out of our LOS.



■ "If that PzKpfw IV is bugging out, Sir, then why does it sound like it's getting closer?" Well, son, take a look behind you. There's another tank pulling into 4F3, with its Gun and VCA pointing toward the G3-G4 hexspine. "Holy cow! Look at the *size* of that thing! What is that?" That's the new German heavy tank, the King Tiger. And it looks like it's here to help out its little buddy that you just scared off.

Now it's a new MPh. In spite of the fact that we're simulating a split-second decision, we're going to look in detail at what options you have to pursue. There are quite a few. First, let's look at the tank. It's driving Crew Exposed (CE)—awfully arrogant of its commander, but he looks confident. Its turret armor is 18, and its hull armor is a whopping 26.

Would AP stop such a beast? Even if you still had APDS to fire, you haven't had a Modified TK number yet that would be high enough to even threaten armor like that. It looks like AP isn't an option unless you were lucky enough to score a CH, and even that might not work.

Can HE do anything different? Look at the HE & Flame To Kill Table. HE rounds have a Basic TK# of 10 for 57mm ammo. This isn't an improvement. But there's another HE rabbit you can pull out of your hat—you could fire HE using the Area Target Type. Remember how light mortars worked against AFV? You can do the same thing with your Gun, although you don't get ROF using ATT. When using ATT you still need to make a TH DR, but against this monster you're not *too* worried about the odds of missing, even though it would be easier to hit using Vehicle Target Type at this range with no TEM to worry about. If you hit, look at the IFT table. The 6/50 column for your Gun would be halved to the 2/30 column for using Area Target Type. Then you'd have to score a KIA to kill the tank, or a K/# or one greater than a K/# to cause automatic Shock or Immobilization. Since the Tiger's AF are all at least 8, you add one to your IFT roll (C1.55). The Tiger, however, isn't sitting in any terrain that would lend it a TEM bonus. So what do you need to hurt this behemoth? "With the +1 to our DR because of its armor, we'd need to roll a 2 to Shock or Immobilize the Tiger, sir." This is not exciting yet. At least you're marginally more likely to have an affect than you were with AP.

You could also affect the exposed crew with an HE shot using the Vehicle Target Type. This is called a Specific Collateral Attack (D.8, D.8A). Using the same DR as for your almost futile TK against the tank, you check for an IFT effect on the 6/50 column against the exposed crew. But with the Tiger crew's 9 morale and

© 2005 Multi-Man Publishing, LLC



+2 CE DRM, your small-caliber HE isn't likely to have an effect. But it's better than hoping for an AP CH.

Finally, you have one option that actually has a slightly-better-than-useless chance of doing some damage—you can make a *Deliberate Immobilization Attempt (C5.7)*. This shot aims to damage the tracks of the tank instead trying to destroy the tank itself. To be able to try this, you must use Direct Fire, be within 6 hexes of the target, and your Ammo must have a Basic TK# greater than the target's lowest hull armor factor. But there is a price to pay. Look at Case G on the C3 To Hit Table. You get a +5 to your TH DR for Deliberate Immobilization, and you *must* get a hull hit. You aren't allowed to use any Acquisition, either, although the shot does allow placement of an Acquired counter on the tank for future regular shots. In your favor, the King Tiger's Target Size modifier (-2 for a Very Large Target) applies to your TH DR. If it all works, the tank is immediately Immobilized, forcing the crew to pass a TC to keep from Abandoning the tank (D5.5). A Deliberate Immobilization shot never causes a Specific Collateral Attack, nor do you get a CH if you roll snake-eyes. Not a decisive outcome, but it looks to be your best hope. Sometimes, depending on the Victory Conditions you must fulfill, just stopping the tank might be every bit as effective as killing it. With all those TH DRM, let's try to affect the crew with an HE shot as we change CA and maybe try Deliberate Immobilization later.

■ But as soon as you declare that you're going to shoot, the King Tiger chooses to declare a *Gun Duel (C2.2401)*. This means it's going to Bounding First Fire at us, trying to shoot you before you shoot it. "How likely is it that it'll shoot first, Sir?" It might be close. It's moving, but you have to turn your CA all the way around. To calculate who gets to shoot first, do this: add up all the C5 Firer-Based Hit Determination DRM that apply to each shot, plus if either you or the tank had Acquisition, you'd add that in, too. And the Brass Sez you would include the DRM of any Armor Leader the tank might have. The side with the lowest total modifiers gets the first shot. A moving tank has such heavy modifiers against it that it probably won't win a Gun Duel *unless* the opposing Gun must change its CA.

So what are your modifiers? "We have to turn the Gun around, so Case A gives us +3+1+1 for a total of +5. Do we ignore the fact that the tank just came into our LOS?" Yes, except for Acquisition, you only look at the *Firer-Based DRM*. We'll look at the rest of the modifiers if you get to shoot. The King Tiger applies Case C^4, which includes Cases B, C, C^1 and C^2 (although doubling the lower dr doesn't count for Gun Duels). That's +2 for B, +2 for C, C^1 doesn't apply, and +2 for C^2. The Tiger's total is +6, and you win the first shot. Had the Tiger won the first shot, it would shoot before you turned your Gun to face him. Because you won, you turn the Gun and then shoot.

Okay, now for your shot. Fire HE and hope the crew gets hurt. You know Case A will be steep. What else applies? Remember, you're shooting for real now, so work your way through the whole chart. "Modified TH# for Vehicle Target Type at this range is 10. Case A Firing outside our CA is +5, Case J Moving Vehicle is +2. Case J^2 Defensive First Fire against a Moving Vehicle that's spent ≤ 1 MP in our LOS is +2, Case P Target Size Modifier is -2. We need a 3 or less to hit, Sir." Yeah, well, here's hoping. Roll? "We get a 7, colored die is 6. We miss and lose ROF." And you place a -1 Acquisition on the Tiger. Now I suggest everyone duck.

The King Tiger gets its shot off with the 88, and misses. Not too surprising with the penalties for moving. It also fires its machine guns at us—that's a total FP of 10, halved to 5 for Bounding First Fire (D3.31), and halved yet again for non-Stopped fire. You still get your +2 for being Emplaced, and there's no effect. We're okay, so far.

■ The King Tiger now spends one MP to Stop, and its remaining MP in Delay to end its MPh. You can now fire at it with only the Case J modifier, not the "time spent in LOS" modifiers of Cases J^1 and J^2 (C6.16.). "Haven't we shot our wad, too, Sir? We lost ROF." Yes, but you can still *Intensive Fire (IF) (C5.6)*.

Most Guns can Intensive Fire, and get one extra shot after exhausting ROF. You can't use IF during the AFPh unless using Opportunity Fire, but can during all other fire phases, although possibly with same-hex or adjacent-target restrictions during the DFPh (A8.41). Even Guns that have no ROF can IF, unless the Gun specifically says it can't. You can't use IF if you are Pinned or marked with a No Fire counter or Intensive Fire counter. In exchange for this extra shot you suffer some penalties. First, you gain a +2 TH DRM for Case F. Second, you have an increased chance of malfunctioning your Gun, and could even permanently disable it. Your B# is reduced by 2 and your *original* B# becomes an X#.

So let's use IF to try to Deliberately Immobilize the King Tiger during its MPh. What do you need? "It's not a Moving Vehicle, is it?" Yes it is. Even though the tank is Stopped, it still entered a new hex this turn, so it's still considered moving. "Modified TH# is 10, Case F Intensive Fire is +2, Case G Deliberate Immobilization is +5. Case J Moving Vehicle is +2, Case N Acquired Target doesn't apply for Deliberate Immobilization, Case P Target Size DRM is -2. We need a 3 To Hit." And you need to hit the hull. Roll. "We get exactly 3! Colored die is a 2, so it's a hull hit! It's immobilized!" The German crew easily passes its Immobilization TC (D5.5) and stays inside.

Gentlemen, we are sitting in the gun sights of a King Tiger, who's probably more than a little bitter about the fact that it can't move anymore. Seeing how our Player Turn is coming up, we should acknowledge that discretion can be the better part of valor, and take this opportunity to abandon our position. We'll step down into K5 during our MPh and get out of the Tiger's LOS. You've done the best you can against it with this little Gun, and you can wait until somebody better prepared finishes the job.

■ Okay. While you're regaining your composure, let's talk about some unusual rules that you haven't seen today. Some Guns have a number in parentheses next to their caliber, like the M1A2 37mm AA Gun. This number is the cannon's *Infantry Fire Equivalent (IFE) (C2.29)*. Instead of rolling to hit and then rolling the effects on the IFT, you have the option to just roll the IFE value on the IFT, similar to firing a MG. The colored die of your IFT roll also determines if you keep your ROF, but your ROF is one less than normal when using IFE. IFE is not *exactly* like firing a MG, though, since you can't be part of a FG, for example.

■ There are times when the modifiers just are too much, and practically add up to your Modified TH#. Normally, you'd assume that you couldn't hit. But there's always a very small chance to hit—no matter how many TH DRM you've accumulated. This is called an *Improbable Hit (C3.6)*. If you roll an Original 2 that would normally miss, make a subsequent dr. A 1 is a CH, a 2 is a turret hit, a 3 is a hull hit, and 4-6 is a miss. If

© 2005 Multi-Man Publishing, LLC

you're firing at Infantry, then 1 is still a CH, and 2 or 3 is a regular hit.

Similarly, while using any target type, if you roll a 2 when you needed—after all modifiers—a 2 just to get a hit, you don't automatically get a CH. Instead, you again make a subsequent dr (C3.7) like you do with an Improbable Hit. A 1 on the subsequent dr means you get a CH after all, while any other result is a normal hit.

■ We've been looking at tanks and Guns from later in the war. In the early days, though, many cannons didn't have as large a caliber as your 57mm Gun. These smaller Guns do, however, fire a lot faster than bigger Guns. To reflect this, Guns with a caliber of at least 15mm but no greater than 40mm get *Multiple Hits (C3.8)* if the firing unit rolls doubles on any successful TH DR that is not a CH. If you get a Multiple Hit, you can roll twice for the TK effects, choosing which result you want to use.

An Improbable Hit or CH never counts as a Multiple Hit. The first Multiple Hit always strikes the hull (since the DR was doubles, the colored die equals the white die), but the TK DR for the first Multiple Hit *also* doubles as a hit location DR for the second roll.



■ Let's look at an 81mm mortar counter—I want to reintroduce you to a bigger version of an old buddy of ours. When your Drill Sergeant first taught you about mortars, he didn't mention much about the larger mortars on $^5/_8$" counters. The rules for light mortars that you learned before are still just as applicable to Gun-sized mortars. Can you tell me anything that would be different between an 81mm mortar and a light, SW mortar?

"Well, the 81mm requires a crew to fire without the Non-Qualified Use penalty, Sir. And it needs to declare a CA, so it suffers from the Case A Firer Outside CA modifiers." That's right. It's easy for you to say that now, but you can see why you might have overlooked all this during your introductory mortar training. Don't forget that a Gun-class mortar can be Emplaced and can Intensive Fire, too.

■ One more special rule to keep in mind. Tanks have the option of overrunning a position (D7). I'm not going to get into the specifics of how a tank does this. I'll leave that to the tank commander. But if a tank is trying to overrun your Gun, and you've used up your ROF *and* your IF, you can still take just one more shot. This is called *Overrun Prevention (C5.64)*. Similar to FPF, this final, desperate shot also counts as a morale check for you, the Gun crew. Hopefully, you won't be faced with a decision like this too often. When you get back to your barracks, your Drill Sergeant has a flowchart that explains the Overrun process in detail. I suggest you get a copy and review it.

■ Let's go back to your Gun in 4K4. I haven't heard the German crew swearing for a while now, so maybe they've left. Yup, all the hatches are open. We'll assume they are gone. Stop looking over your shoulders and let's get back to work. Swing your CA around to face east again, towards hex M4.

■ Look over at 4I2. See the wall? Infantry behind it would get the normal +2 TEM, but an AFV behind the wall gets an even better break. Since your LOF traces through the wall depiction, the tank would be *Hull Down (HD) (D4.2)* to your fire. Tanks on higher elevations can also maneuver to get into a HD position against fire from lower elevations. You shoot at a HD tank just like any other tank, but instead of using the Case Q TEM for the wall on your TH DR, you *must* hit the turret to have any effect. Otherwise, you hit only the wall, or the side of the hill against tanks HD behind a Crest Line. This means just over half your hits have no effect—a very nice position for a tank to be in. And, reasonably, you are not allowed to try a Deliberate Immobilization shot against a tank that is HD. "Sir, since the colored die equals the white die on snake-eyes, wouldn't a CH always miss a HD tank, hitting the wall instead?" No, you get a break here, a CH always hits a HD target in its upper superstructure.

■ If a tank crosses a wall and you're within six hexes of the hex it's about to enter, you have a chance at an *Underbelly Hit (D4.3)*. First, you must trace your LOS through the tank's Vehicle Covered Arc (VCA) to a vertex, tank commander's choice, of the hexside being crossed. Then, if you score a Turret hit, you use the vehicle's Aerial AF, usually much lower than the tank's normal turret AF, on the resulting TK attempt. A sweet shot opportunity, if it arises. By the way, you can also score an Underbelly Hit if you're in front of and within six hexes of a tank that's climbing out of a stream or gully, or crossing a Bocage hexside.



■ Okay, you have one more target category to try. We've shot at vehicles and Infantry, but let's see what it takes to hit an opposing Gun. We have a German 37mm Gun over in 4O3 pointing its CA at us. It is manned by more of our simulated Germans, this time by a crew.

When you are shooting at a Gun, you're just as interested in shooting the crew manning the Gun as you are in actually destroying the Gun. Anything, so long as that enemy Gun stops firing. There are three possible effects when shooting at a Gun—a miss, a Direct Hit against the Gun, or a Near Miss that affects the crew. The results of the latter two are tactically similar in that the enemy Gun stops shooting, but the mechanics can be different.

Attacks on the IFT, such as those by Small Arms or machine guns, are resolved just like you've always done against Infantry targets. Make a DR on the IFT and add in any applicable TEM. Unless it's in unusual terrain like the desert, an Emplaced Gun gets a +2 TEM if it doesn't claim any other TEM. If the Gun has a *Gunshield (C11.5)*, its crew could claim the Gunshield's +2 DRM (+1 DRM against Indirect Fire) so long as you fired at the crew through the Gun's CA and the crew isn't claiming any other TEM (terrain or Emplacement). No surprises so far.

When firing ordnance at a Gun, you calculate your TH DRM and IFT effects just like you do when firing against Infantry—using either Infantry Target Type or Area Target Type. Let's compare these two choices.

Using the Area Target Type:

- The target Gun's size would modify the TH DR.
- The Gun's TEM (whether it used Emplacement, Gun Shield, *or* TEM—but not more than one) would apply to the IFT resolution.

© 2005 Multi-Man Publishing, LLC

- Your IFT equivalency would be halved.
- You *must* fire HE.

Using the Infantry Target Type:

- The target Gun's size would modify the TH DR.
- The TEM would apply to the TH roll instead of the IFT resolution.
- Once you hit, you use the full strength of your HE round.
- If you fire AP, you use the HE Equivalency Table.

If the target Gun has a Gunshield, there's an additional modifier to consider when you're firing ordnance. If you hit, you roll normally on the IFT. A KIA or K/# result is a *Direct Hit (C11.4)*, killing the crew and either destroying the Gun (if a KIA) or malfunctioning it (if a K/#). But any other IFT result must also add +2 for the Gunshield DRM. Also, a Gun and crew hit by a CH are both immediately eliminated (C3.71). Let's try this shot out. We've been pointing at 4O3 for at least a turn now, so take your shot and ignore Case A.

"Range is 4 hexes, we'll try an Infantry Target Type shot. We have a Basic TH# of 8. C4 has no DRM that apply, nor does C5. In C6, Case P Target Size gives us a +1, and Case Q TEM is +2 for being Emplaced. We need a 5 or less to hit." And roll. "We roll a 7, colored die is 1, so we miss and keep ROF and gain a -1 Acquisition."

Try again with your undepleteable HE. "Same DRM as before, with an additional -1 for Case N Acquired Target. We need a 6 or less to hit. We roll a 6, colored die is 5. We hit, lose ROF, and flip the Acquisition counter over to -2." Very good. Now you're hitting the crew on the 6/50 column of the IFT. What do you roll? "We get a 7, which is modified to a 9 by the Gunshield. Our NMC just became a No Effect."

Don't grouse too much. Since you're a Gun crew behind a Gunshield, you also get this benefit. Makes it all the more evident that Small Arms and MG fire can be more effective at clearing out a Gun crew than a tank's Main Armament. Okay, that's enough target practice for today.

■ "Sir? I remember from my Infantry training that Area Fire halved our firepower. How does that work with a Gun?" It is important to keep straight the difference between Area Fire and Area Target Type. Using the Area Target Type halves your Gun's firepower on the IFT, but Area Fire (C.4) does not. While there are several situations that result in Area Fire for a Small Arms attack, for your Gun the primary instance occurs when firing at a concealed unit, for which you must add the Case K +2 DRM to your TH DR. A *Light Anti-Tank Weapon (LATW) (C13.1)* firing out of a marsh or stream would also add the Case K DRM for Area Fire, as would ordnance firing at a gunflash at night. Firing SMOKE at an empty hex would *not* invoke the Case K Area Fire DRM. Smoke is a Special Ammo we'll leave to the expert gunnery course.

Well, you've seen the important parts of firing a Gun, but you should explore what happens if you ever need to move it. Let's leave your targets alone for a while, and worry about what you do to get underway. Meet me over at the M2A1 105mm artillery piece after a short break.

■ TEN HUT!

Shooting is always fun, if not always easy. But what if you ever need to move your Gun? Manhandling is often not easy, and seldom much fun.

Some Guns need to be limbered before they can be pushed or towed. According to the back of your 57mm AT, your Gun is a QSU Gun, so it doesn't need to be limbered to move it (C10.23). Or unlimbered again after you've moved it. Examine a M2A1 105mm Howitzer counter (or look at its picture in Chapter H). Notice that instead of having malfunction information on the reverse of the counter, it has a limbered status. You'd flip this counter over to show that the Gun is limbered and ready to be moved. Some Guns can even fire when they're limbered (C10.24), like that infernal German 88 (the 8.8cm FlaK 18 o. 36). A crew or other manning Infantry can flip a Gun from its limbered side to the unlimbered side, or vice versa, during any Friendly Fire Phase in lieu of firing it. The crew, by the way, needs its full attention on this task, so it must be in Good Order and unpinned to limber or unlimber a Gun (C10.111).



Some Guns are so doggone big that they can't be limbered if they start out unlimbered, or vice versa, in the time frame of a scenario. These are called *No Movement (NM) (C10.26)* Guns. There are even bigger Guns, the truly heavy artillery, called *Restricted Fire, No Movement (RFNM) (C10.25)* Guns. They aren't meant to be in the cauldron of a battle, and they suffer some heavy TH DRM for up-close targets. I won't get into the specifics because these aren't very common. Just read up on them if you encounter a situation calling for one of these monsters.

Your 57mm Gun, however, is a QSU, and can be pushed or towed at the drop of a hat. Let me show you how to push a Gun. Check that. I'll tell you how *you* can push a Gun (C10.3). Unless it's a QSU Gun, a Gun must be limbered before it can be pushed. You also can't move a Gun that has fired or changed its CA during this Player Turn (C3.22).

There are some steep movement penalties for pushing a Gun. You spend twice the normal MF to enter a Location, and while you're pushing you're conducting Hazardous Movement (A4.62). Plus, you can't be hauling anything else that costs PP. You can't move under a Wire counter or try a Minimum Move to get into a difficult hex (like uphill into the woods). You lose any chance for Road Bonus, but you *can* declare Double Time in an attempt to push your Gun further. On the front of the counter, in the white dot on your 57mm Gun, your Gun's *Manhandling Number (M#) (C2.27)* is shown as M10. Before you can Push a Gun into a new hex, you must make a DR ≤ its M#. The bigger the Gun, the lower the M#, and the lower you have to roll to Push it. Of course, this DR is subject to various DRM. The most common modifications come from the terrain you're trying to move into. Add both the TEM of the terrain and the number of MF you're about to spend to the DR. "You mean the doubled MF for pushing a Gun, Sir?" Afraid so. Look at the chart in C10.3. Modifiers to keep in the back of your helmets include:

- If it's muddy or snowy (+3).
- Whether you can get another MMC to help you (-1 per additional HS).

© 2005 Multi-Man Publishing, LLC

- If your Gun is marked with Low Ammo (fewer ammo boxes gives you a -2).
- If you're pushing across a Road hexside (-2).
- Any Labor Status you've accumulated (-1 or -2).

Conspicuously absent is any mention of leadership modifier. I can give you more MF to possibly move farther, but I can't make you push harder. For now, you're on your own. No need for *me* to be using Hazardous Movement. Give it a go.

How many MF would you need to push your Gun from 4K4 into K5? "Entering Grain normally costs 1 $^1/_2$ MF, so this would cost us 3 MF, Sir." So add the TEM of 0 to your DR, and add the MF cost of +3. You need to roll a 7 or less to enter the hex. Try it. "We roll a 6, and push the Gun into K5." Very good. Now during the same MPh declare Double Time to raise your MF up to 5, and push it back to K4. What was that you said, Appel? "Er, I was just saying we need to make another DR, Sir." TEM is +0, MF is +2, so you need a DR of 8 or less. Go ahead and roll. "We got an 8, Sir." Okay, if your Final DR is less than your M#, you push the Gun with no problem. If it's higher than your M# you stop, but you can mark yourself with a -1 Labor Status counter (or flip an existing –1 Labor to a -2 Labor). But if your Final DR equals your M#, you move the Gun into the hex but can go no farther. Either way, when you stop pushing the Gun, you're marked with a TI counter for the rest of your Player Turn. When you push the Gun into its new hex, you can set its CA to point in any direction you want. Point it east again, back at hexspine L3-L4. Even though you're back in your initial hex, you've lost your Emplacement TEM because you moved the Gun.

Come next turn, try pushing the Gun into the woods in hex J4. What do you need to roll? "Um, +1 for the TEM, and +4 for the MF cost for a total of +5. We need to roll a 5 or less, Sir." And roll. "We get a DR of 9—so we stall here against this tree root, and are marked with a TI counter." And a -1 Labor Status counter, to help you next turn. Note how easily you got stuck with a Gun that is relatively easy to push. Just remember this next time you are thinking about pushing a Gun—it's not easy to do by yourselves unless you're heading for relatively open terrain.



■ Okay, so pushing is a pain. Instead, you can try to recruit a passing vehicle to help you tow the Gun. That's why the Army put them here, right? Let's look at a Jeep. "Is a Jeep big enough, Sir?" The lower left of any vehicle counter shows the *Towing Number (T#) (C10.1)* for that vehicle. The T# must be less than or equal to your Gun's M# for the vehicle to be able to tow your Gun. As you can see the Jeep has a T10. "So a Jeep can just barely tow our Gun!" Right.

To Hook Up (C10.11) or Unhook your Gun, the Jeep must spend half its MP and can't be in the middle of a Vehicle Bypass. This expenditure of MP doesn't mean the Jeep is actually moving, but it does count as an opportunity for the enemy to fire at you during your MPh (C.8). If the Gun's M# is in a circle, and I mean a true circle like we saw on the 105mm ART Howitzer we looked at earlier, not the white dot that shows a Gun is a Small Target, a vehicle would have to spend two-thirds of its MP to Hook Up or Unhook. Likewise, you crew members must be ready to get to work, so you can't fire the Gun or change its CA during the Player Turn you Hook Up or Unhook, plus you must be unpinned and in Good Order to do any hooking or unhooking (C10.111).

As the manning crew, you can automatically load onto the Jeep as you're Hooking Up. "Geez, Sir, is there still room? That Jeep looks like its gonna drag on the ground." Any time a vehicle is towing a Gun, its PP is reduced by 4 for all your ammo boxes (C10.13). If this Gun were 100mm or bigger, it would cost the vehicle 8 PP for the ammo. A Jeep has 9 PP, your ammo takes up 4 PP, and a crew takes up 5 PP (D6.1). So long as there isn't any spare SW already in the Jeep, there's just barely enough room for you and the Gun. "Looks like you'll be walking, Sir." Drop and give me 50, Tracy. No, a SMC doesn't take up any room unless there's more than four of us. Don't get comfortable just yet. I'd like to show you what you do with a towed Gun. Unhooking a Gun is just the opposite of Hooking Up. You can Unload from your vehicle and Unhook the Gun in one MPh if you want.

No matter what, though, whether you Hook Up or Unhook a Gun, both towing vehicle and Gun crew are marked with a TI counter for the rest of the Player Turn. So you can't Hook Up and drive off in one Player Turn, and you can't Unhook and fire in one Player Turn.

If you're in a hurry, or if the vehicle's MP were too few to make it all the way to your hex this turn, you could push your Gun into the hex with a vehicle and then Hook Up (C10.31). The only trick is, you have to be able to hypothetically push the Gun another hex—you can't be out of MF. So you need to roll less than your modified M# (because if you rolled equal to the M# you would have to stop).

■ Let's look at the 81mm Mortar counter again. Notice it has a M#, so moving it will be like moving a Gun (unlike the light Mortars you carried as a SW). Additionally, you can dismantle a mortar that's between 76mm and 82mm and replace it with a $^1/_2$" counter that costs 5 PP to lug around. This is nominally more portable than pushing it like a Gun. If you wanted to transport it on a vehicle, the dismantled mortar would take up only 4 PP (C10.13), with no additional cost for the ammo boxes. So if you loaded this on a Jeep, with a 9 PP capacity, you could put the mortar (at 4 PP, not 5 PP like it says on the counter) into the back, and there'd still be room to haul you crew members. On the other hand, if you were a Rider on the back of a vehicle, like on an AFV, you'd still have to use the 5 PP cost for a dismantled mortar (D6.2).

■ Well, that's it. I've taught you the complete Guns and Advanced Ordnance Principles training course. This hasn't been an exhaustive description of absolutely every rule relating to Guns and ordnance, but it certainly covers most of the points that you'll need to know to use them. As always, you should become familiar with the rulebook and be comfortable with finding what you need to know in there.

© 2005 Multi-Man Publishing, LLC

O. RED BARRICADES

ORDER OF PRESENTATION:

1. Debris
2. Railway Embankment
3. Printed Rubble
4. Single-Hex Two-Story Building
5. *RB* Factories
6. *RB* Cellars
7. Culvert
8. Gully Entrance Hexside
9. Storage Tanks
10. MOL-Projector
11. *RB* Campaign Games

[Rules O.1-O.8 are clarifications of Chapter A-D rules. As such, they apply to the rest of the ASL system as well as to RB.*]*

O.1 *ROAD-NEGATING TERRAIN (B3.4; B24.121):* Infantry may not claim the extra-MF road bonus during a MPh in which they expend extra MF to derive the protection of shellholes/woods—nor may they claim it if they choose the non-Open-Ground cover of an orchard in preference to the Open Ground of a road. A road covered by rubble/debris is treated as non-existent [EXC: for Street Fighting (A11.8) purposes; if Cleared (B24.71)]. Therefore, Dash (A4.63), road bonus (B3.4) and the ½-MP road rate are not allowed in a road hex covered by rubble or debris except via TB.

O.2 *SEWERS & FORTIFIED BUILDINGS (B8.44 & B23.922):* A unit may not exit a sewer to enter a Fortified Building Location if it could not enter that Location from outside the sewer. A sewer Location may never be Overstacked.

O.2A *TUNNELS & FORTIFIED BUILDINGS (B8.61 & B23.922):* Only a unit of the side that constructed a tunnel may use that tunnel to enter a Fortified Building Location and may do so even if that Location is enemy-occupied.

O.2B *WALL ADVANTAGE & FORTIFIED BUILDINGS (B9.32 & B23.93):* A Gun in a Fortified Building (or Pillbox) Location may never claim Wall Advantage. Its manning Infantry could claim it only by first dropping possession of the Gun. Such a Gun can, however, have a LOS to non-adjacent same-level Locations over the wall hexside(s).

O.3 *GULLIES & RUBBLE (B19. & B24.2):* A combination gully-rubble hex is a LOS obstacle at both its Crest and Depression levels [EXC: rubbled bridge; B6.331], but only to same-level LOS. A unit IN such a hex must expend *four* MF to enter Crest status in that hex (B20.91). A Crest unit in such a hex always receives rubble TEM—not entrenchment benefits. All other Crest rules apply unchanged.

O.3A *GULLIES & SHELLHOLES (B19. & B2.4):* Shellholes occur only IN a Depression—not at its Crest level. The MF cost to enter a gully-shellhole Location is as per B19.4.

EX: A squad IN CC3 may move INTO the BB3 gully-shellhole Location at a cost of two MF, or three MF if also using the shellhole TEM. It may continue movement into AA3 at a cost of two MF (Open Ground) or three MF (if using the shellhole TEM).

O.4 *FACTORY MOVEMENT (B23.742):* A vehicle that changes its VCA in *any* Factory Location is subject to Bog. A vehicle that becomes Immobile in a Vehicular-Sized Entrance (5.2; B23.742) does not negate Entrance benefits. Any unit may use the Open Ground entrance benefits of a Vehicular-Sized-Entrance—but only when entering it from *outside* that Factory and not if that Entrance is Roofless (see 5.42). Such use of OG entrance benefits does not negate that hex's Factory TEM.

O.4A *FACTORY TEM/HINDRANCE (B23.741):* Normal building TEM (usually +3) applies to Indirect Fire vs a non-Rooftop Factory Location (unless Roofless; 5.45). The extra +1 TEM for a Fortified Factory Location does not apply vs *Indirect* Fire. For Sniper Target Selection (A14.21) a unit in a stone Factory is considered to have a +3 TEM (+2 TEM if wooden). Factory Hindrance is a half-level LOS Hindrance. See also 5.41.

O.4B *FACTORY ROOFTOP ACCESS POINTS (B23.742 & B23.8):* Aside from Scaling (B23.424), a Factory Rooftop can be reached from ground level only via a non-rubbled, non-roofless (5.4) Factory Rooftop Access Point; i.e., a printed stairwell or a Location of the Factory that contains a *road hexside*.[1] A Factory that contains neither of these Rooftop Access Points must have at least one such Point designated by SSR if its Rooftop is to be usable.[2] The ground and Rooftop levels of a Factory Rooftop Access Point hex are ADJACENT (see the entry for **"Squad K"** in the EX at the top of page O4); intermediate vertical levels do not exist [EXC: for MF-expenditure, LOF and Residual-FP purposes; see O.4C]. Infantry expend two MF (for a 1½-level Factory) or three MF (for a 2½-level Factory) to ascend to the Rooftop or vice-versa.

O.4C *ATTACK EFFECTS (B23.8):* Infantry changing levels via a Factory Rooftop Access Point may be attacked at ground level (if descending) and/or Rooftop level (if ascending) in the normal manner. However, they may also be attacked at the first-level (and/or second-level if a 2½-level Factory) "quasi-Location" of that hex by a unit that has a LOS to that quasi-Location. Such a quasi-Location is not considered Open Ground, but such an attack vs it receives no TEM [EXC: non-Fortified building TEM applies if firing from outside the Factory] and neither Factory nor debris Hindrance DRM. The target is assumed to expend one MF per level changed; if pinned or broken while at that quasi-Location it reverts to the level it was attempting to *leave* (and may be attacked by any Residual FP at that level as it re-enters it). The Residual FP left by an attack vs such a quasi-Location remains at that level (place the Residual FP counter on the appropriate Level counter) to attack each unit subsequently entering that level in that hex during the same MPh.

A unit at rooftop level in a Factory Rooftop Access Point hex being attacked by a same-hex ground-level unit receives the Height Advantage +1 TEM (B23.81), while the ground-level unit receives *Factory* TEM (and no additional TEM for a Fortified Building Location) if attacked by that Rooftop unit. Both units may use PBF (since they are ADJACENT; A7.21).



O.5 *ROOFTOPS (B23.82):* A Rooftop Location is Concealment Terrain only for setup purposes. Once the first RPh has been completed B23.82 comes into effect. A Rooftop Location is not considered a building Location for rout and Victory Condition purposes. A Gun may never be Emplaced (C11.2) on a Rooftop.

O.6 *RUBBLE & SEWERS (B24.4):* Entrance/exit of a sewer through a rubbled Manhole Location *is* allowed if the Manhole is in a road hex that can be crossed (not just entered) along the road via a full TB.



O.7 *ARMORED CUPOLA (D9.5):* Since it is treated as an Immobile tank, CC vs an armored cupola requires the use of PAATC and CCV in the normal manner. An armored cupola set up directly behind a wall/hedge is always assumed to have Wall Advantage over those hexsides (even if set up after an enemy unit that is ADJACENT to it across such a hexside[s]) unless it is Abandoned or its Inherent crew is stunned/shocked. If an armored cupola is set up using HIP, it is revealed when an enemy unit enters its Location (or attempts to claim Wall Advantage while ADJACENT to it). If this occurs in the APh, the entering unit must immediately take a PAATC (if normally required to do so), failure of which Pins it in the armored cupola's Location. An Armored Cupola may also be placed in shellhole or debris terrain. An armored cupola, if considered a Dug-In tank, can become a burning wreck.

O.8 *ENTRENCHMENTS (B27.):* A trench (including an A-T Ditch) may not occupy the same Location as a foxhole.





1. DEBRIS

1.1 Debris[3] (EX: hex K3) is Inherent Terrain (B.6) [EXC: if in a Factory; 5.41] and also Concealment Terrain (A12.12). It has a +1 TEM and is a Half-level LOS Hindrance (both of which are cumulative with Factory TEM/Hindrance [EXC: see 5.41]). Debris may not be Kindled, nor may a Blaze spread to it; however, debris in a Roofless Factory Hex (EX: S13) can catch Fire along with the building Location (which may still be Kindled in the normal manner [EXC: Gutted; 5.51]). Debris may not be created during play.

1.2 *MF/MP:* Infantry must expend one MF+COT to enter a debris Location. The only vehicle type that may enter debris is a fully-tracked AFV, which does so by expending ¼ (FRU) of its MP allotment and taking a Bog Check with a +1 DRM (and an additional +1 Bog DRM for entry of a Factory Location if applicable) [EXC to all: if Bypassing a Factory debris Location; 5.42]. Dash (A4.63), road bonus (B3.4) and the ½-MP road rate are NA in a road hex covered by debris except via a TB (O.1).

1.3 *FORTIFICATIONS:* A Fortification may exist in a debris Location unless *other* terrain/Fortification(s) therein prohibit it.

EX: Debris hex K3 may contain Wire/Mines/Entrenchments/Pillbox. Debris-road hex D15 may

contain Wire/Roadblock/Pillbox/non-hidden Mines. Interior Factory debris hex R12 may contain no Fortifications—but could be designated as a Fortified Building Location.

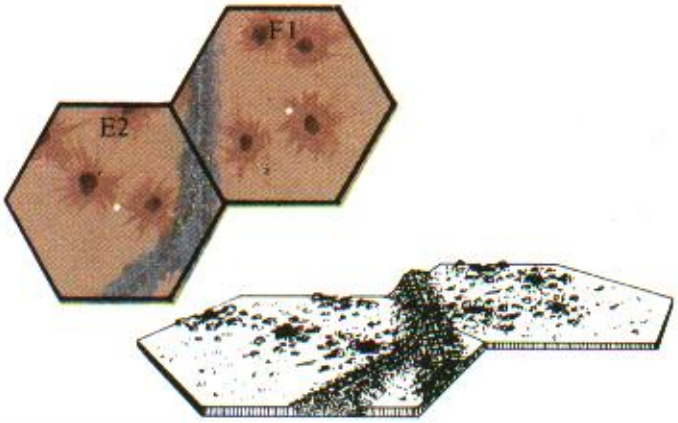
1.4 *RUBBLE:* Rubble created in, or falling (B24.12) into, any debris Location turns it into a Rubble (not debris) Location.

1.5 *CLEARANCE:* Debris may be Cleared [EXC: Factory debris; 5.41] as if the Location were Fallen rubble (3.2; B24.71). However, debris may not be totally Cleared from a hex contrary to the last sentence of B24.71.

1.6 *MANHOLES:* A printed/inherent Manhole in a debris Location is usable.

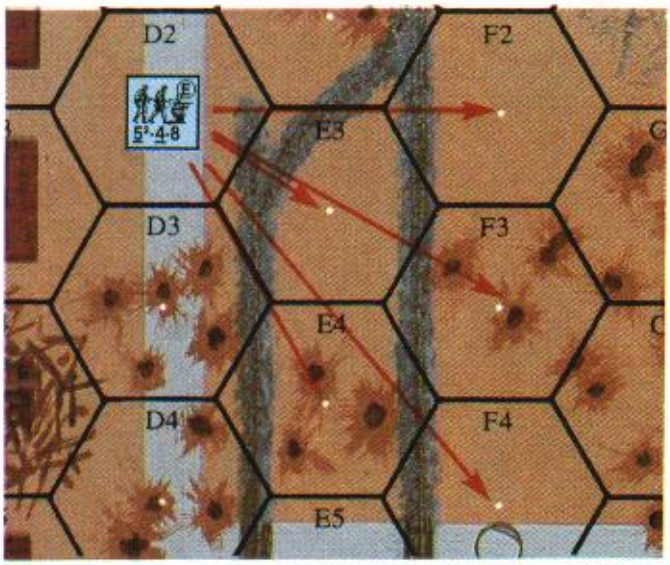
1.7 *AERIAL:* There is a +1 DRM to a Sighting TC vs a unit in debris [EXC: if in a Roofless Factory Hex; 5.47].

1.8 *CA CHANGE:* The Case A TH DRM (C5.11) is not doubled for being in debris [EXC: if also in a Factory Location; 5.41].



2. RAILWAY EMBANKMENT

2.1 *EFFECTS:* A Railway Embankment[4] (EX: hexsides E2-F1 and E2-E3) represents slightly elevated railroad tracks. Each hexside (including vertices) crossed by the gray and black railway depiction—but not the depiction itself (i.e., not the artwork)—is treated exactly like a wall for all purposes [EXC: all types of units may cross it at a cost of one MF/MP plus COT with no Bog DR required due to crossing the Railway Embankment hexside].



EX: Across hexside D2-E3, a unit in D2 has LOS to the ground level of hexes F2, F3, F4, E3, and E4.

2.2 *ROADBLOCK:* A roadblock may not be placed along a Railway Embankment hexside.

2.3 *STRAYING:* A unit/stack that wishes to "follow" a railway embankment by moving in hexes having contiguous railway embankment hexsides is exempt from making a Movement DR in the same manner as if on/ADJACENT-to a road, path, etc. (E1.531).



3. PRINTED RUBBLE

3.1 The *RB* map depicts numerous printed rubble Locations (EX: hex R42 contains printed stone rubble; hex R43 contains printed wooden rubble), all of which are treated exactly as if a corresponding rubble *counter* were in that Location [EXC: 3.2]. Ignore small portions of the artwork extending across a hexside into an adjacent non-rubble Location; the presence of these fragments serves only to reinforce the fact that, as Inherent Terrain, rubble blocks all same-level LOS traced along the rubble hexside.

3.2 *CLEARANCE:* For Clearance purposes (B24.71), the only *printed* rubble that is considered Fallen is that which lies in a road or gully Location. Furthermore, the last sentence of B24.71 is negated for all *RB* scenarios.

3.3 *CELLARS:* Printed rubble Locations never have a *RB* Cellar Location "beneath" them (6.6).



4. SINGLE-HEX TWO-STORY BUILDING

4.1 A building with a large white center dot (EX: hex I6) is a 1½ level LOS obstacle with both a ground- and first-level Location and an Inherent stairwell. Like a Single Story House (B23.21) it has no Rooftop Location. In *all* other respects it is a normal building.

5. *RED BARRICADES* FACTORIES

5.1 Each building on the *RB* map that has ≥ one road entering it is a Factory. No others are Factories. Normal Factory rules apply to all *RB* Factories except as amended below.

EX: Building O40 is a Factory due to having a road enter it in hex O41. Building L27 is a Factory due to having roads enter it in hexes M27 and M29.



5.2 *VEHICULAR-SIZED ENTRANCE:* A non-rubbled *RB* Factory Location that has a road entering it (EX: hex M29) is considered a Vehicular-Sized Entrance (B23.742; see also O.4-.4C).

5.3 *FACTORY INTERIOR WALLS:* A thick black bar covering a hexside (EX: K12-L13) or partial hexside (EX: J13-K13) in the interior of some *RB* Factories represents a massive interior wall similar to the black-bar hexside of a Rowhouse (B23.71). It is considered to extend from the Base Level of the Location to the underside of the roof (even if the roof itself does not exist).

EX: The Factory Interior Walls of a 1½-level Factory are 1½ levels high, even where no roof exists.

5.31 *LOS:* The black-bar depiction, as well as the hexside itself (inclusive of vertices) lying *within* the building depiction, represents the Factory Interior Wall and blocks all LOS along/through it unless the viewing/viewed unit is at a level ≥ the top of that Interior Factory Wall [EXC: Breach, 5.33; if Rubbled, 5.34]. In a Roofless Factory one or more hexes directly "behind" such a black bar can also be Blind Hexes to higher-level LOS.

EX: See the illustration at the top of page O4. At ground level, LOS from K15 to L16 and from L15 to K17 is blocked by the black bar along the L15-K16 hexside. However, ground-level LOS from J18 to K20 does exist since the black bar does not cover the J18-J19-K19 vertex. See entries for **"Squad A"**, **"Squad C"** and **"Squad F"** in the this EX.

5.311 *FACTORY NVR:* In a Night scenario, a (non-Sewer/non-rooftop) unit in a Factory tracing its LOS completely within that Factory building's depiction always has its NVR to *roofed* Locations of that building limited to the first roofed Location its LOS enters [EXC: as altered by Illumination/lower-NVR].

5.32 *MOVEMENT:* A ground-level unit may move/rout/advance/Withdraw-from-Melee across a Factory Interior Wall only via "bypass" (as per B23.71) along an *exterior* vertex (i.e., one "outside" the Factory building depiction) or via a Breach (5.33).

EX: See the illustration at the top of page O4. Squad J in hex K19 may directly enter J18 only by using Bypass along the J18-J19-K19 vertex or via a Breach in hexside J18-K19.



5.33 *BREACH:* A Factory Interior Wall, even if part of a Fortified Building Location, may be Breached by a DC as per B23.711, or by any AFV using the mechanics of B9.541.

5.331 *EFFECTS:* Once a Factory Interior Wall hexside has been Breached, that hexside's effects remain unchanged except as follows:

- units may move/rout/advance/Withdraw-from-Melee, and same-level (only) LOS may be drawn, across it *as if it were a wall* (exclusive of its vertices, whose status remains unchanged by the Breach);
- the *Inherent* FP (only) of a unit/FG firing through such a Breached hexside is halved as Area Fire if the total US# of the unit(s) currently firing is ≥ 3;
- only one Gun (whether vehicular or not) per Location may fire through such a Breached hexside per Game Turn;
- such a Breached hexside may be crossed only if the total US# of all units that have crossed it during the current phase, plus the US# of the unit currently wishing to cross it, is ≤ 5.

EX: See the illustration at the top of page O4. Assume hexside L15-K16 has been Breached. Squad C has a LOS *through* the Breach to hexes K16 only (its LOS to J16 is blocked since it goes outside the Factory building depiction in hex K16). If hexside K17-J17 were also Breached, squad C could fire at a unit at ground level (only) in J17 with 8 FP (4×½ [unit with a US# ≥ 3 firing Inherent FP through a Breach] + 6 [SW FP through a Breach is not penalized by Area Fire]=8) with a +1 (Factory) TEM and a +3 Factory debris Hindrance.

5.34 *RUBBLE:* Rubble has no effect on a Factory Interior Wall black bar unless both hexes sharing the hexside are rubbled, in which case the Factory Interior Wall ceases to exist along that hexside.







5.4 *ROOFLESS FACTORY HEX:* A Roofless Factory Hex (EX: hex S13) represents a portion of the Factory in which the roof has collapsed. It is depicted on the *RB* map by the presence of a dark gray "floor" covered by debris and, aside from not having a roof, is considered a building in all respects. A unit may never gain Rooftop status in a Roofless Factory Hex.

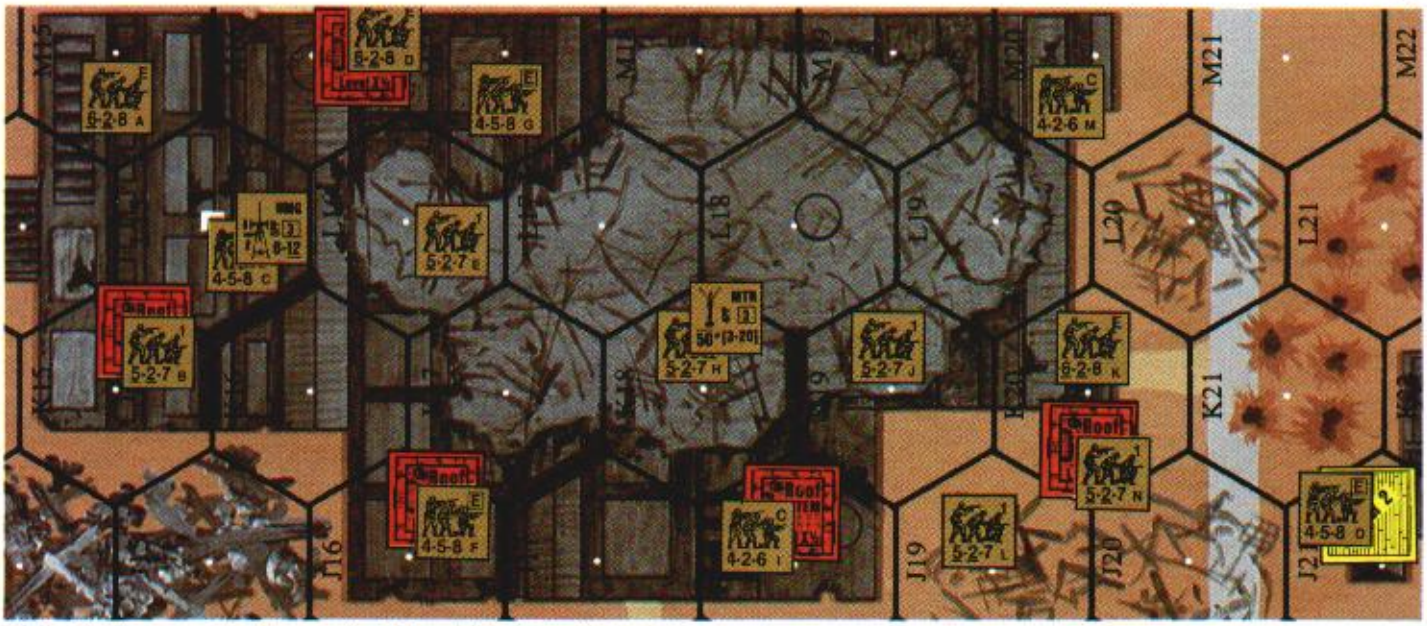
5.41 *FACTORY DEBRIS:* All non-rubbled Roofless Factory Hexes contain debris (1.). Factory debris is not Inherent Terrain (i.e., it exists only *within the building depiction*), and may not be Cleared. Only *building* (not Factory debris) TEM applies to a Direct Fire attack whose LOS is *not* traced *entirely* within the Factory (see the entry for **"Squad J"** in the EX at the top of page O4. Indirect Fire, and Direct Fire whose LOS *is* traced entirely within the Factory to a Roofless Factory Hex is subject to both Factory TEM (+1) and Factory debris TEM (+1). Moreover, LOS (and Indirect Fire) that incurs the +1 Factory Hindrance of a Roofless Factory Hex also incurs that hex's +1 debris Hindrance, for a total of +2 per-hex LOS Hindrance (an EXC to the last sentence of A6.7). See the entry for **"Squad E"** in the EX at the top of page O4.

EX: See the illustration at the top of page O4. Squad M has a LOS to the ground level of K20 with no *Factory* debris Hindrance (since the Factory debris in L19 does not exist outside the building). Squad J, if fired on by squad L, would receive the +3 Building TEM (i.e., no TEM for Factory debris). Squad H, if fired on by squad C, would receive a +6 DRM (+2 for the Factory and debris Hindrances in L16, +2 for the Factory and debris Hindrances in K17, and +2 for the Factory and debris TEM of K18). If squad H fires its Small Arms at squad C, the latter receives a +5 DRM (+2 for the Factory and debris Hindrances in K17, +2 for the Factory and debris Hindrances in L16, and +1 for the Factory TEM of L15). Squad H, if fired on by squad D, would receive only a +2 DRM (for the Factory and debris *TEM* of K18).

5.42 *MF/MP COSTS:* A unit entering a Roofless Factory (i.e., a Factory debris) Hex expends MF/MP as per 1.2, unless entering via Bypass in which case the Factory debris does not affect its movement.

5.43 *ROOFTOP LOS:* Since it lacks a roof, a unit in a Roofless Factory is more vulnerable to fire from above (and vice-versa). For game purposes, the dark jagged artwork delineating the interior edge of the roof acts like a hill Crest Line (B10.2); however, LOS may be traced directly *along* such a hexside (even if also an Interior Factory Wall hexside) just as if tracing it *along* a cliff hexside (B11.2).[3] The Rooftop artwork extending into a Roofless Factory Hex never itself blocks LOS. Barring other LOS Obstacles, a unit on or higher than a Factory roof has no LOS into *roofed* ground-level Factory Locations past the first such Location its LOS enters. See the entries for **"Squad D"** and **"Squad F"** in the EX at the top of page O4.

EX: A unit on the second level of hex O18 has a LOS to the ground level of Factory hexes O15, O16, and O17 (since all are hexes of a level-1½ Factory). If firing at the ground level of O15 it incurs the +1 Factory TEM of that target hex; if firing at O16 it incurs a +2 Factory debris TEM; if firing at O17 it incurs the +3 stone-building TEM. The unit has no LOS to the ground level of O14 since a higher-level unit has a LOS only into the first *roofed* ground-level Factory Location its LOS enters.



EX: The following serve to further illustrate various LOS possibilities in a partially Roofless Factory.

Squad A has a LOS only to squad C. It has no LOS to squads E and H due to Interior Factory Wall vertex L15-M15-M16.

Squad B has a LOS to all other rooftop squads only. It has no LOS to squad O since that unit is ½ level lower than squad B nor to any units in the depicted Roofless Factory Hexes since the interior roof edge acts like a hill Crest Line for LOS purposes.

Squad C has a LOS only to squads A, E, G and H. It has no LOS to squad N due to Interior Factory Wall hexside K18-K19.

Squad D has a LOS to all other rooftop squads as well as to squads E and H. It can see squad H since the rooftop depiction overlapping into Roofless Factory Hex L16 does not block LOS (5.43).

Squad E has a LOS to squads C, D, F, G, H, I and N. It has no LOS to squad K due to intervening Factory debris Hindrance (5.41).

Squad F has a LOS to all other rooftop squads as well as to squads E, G, H and M. Squads G and M are in its LOS since squad F has a LOS into the first roofed ground-level Location of another hex its LOS enters in that Factory. Its LOS to squad H is clear since the viewing unit is at a level ≥ the top of the Interior Factory Wall hexside it is viewing along (5.31).

Squad G has a LOS to squads C, E, F, H, I, J, M and N.

Squad H has a LOS to squads C, D, E, F, G, I and M. Squad I could Spot for squad H's mortar (5.45).

Squad I has a LOS to all squads *except* squads A and C. It has no LOS to squad A as a higher level unit can only see into the first roofed ground-level Location of that Factory its LOS enters.

Squad J has a LOS to squads G, I, K, L, M, N and O. Squad J, if fired on by squad L, would receive a +3 building TEM (no debris TEM applies; 5.41) or a +4 applies if squad J's Location were Fortified (B23.9).

Squad K has a LOS to squads I, J, L, M, N and O. It has a LOS to squad N since the ground and rooftop levels of a Factory Rooftop Access Point are ADJACENT (O.4B); squad N, if fired on by squad K at PBF would receive the HA +1 TEM (O.4C).

Squad L has a LOS only to squads I, J, K, N and O.

Squad M has a LOS to squads F, G, H, I, J, K, N and O. If fired on by squad N, squad M's TEM would be +3 since the LOS is not traced entirely within the Factory building depiction (B23.741).

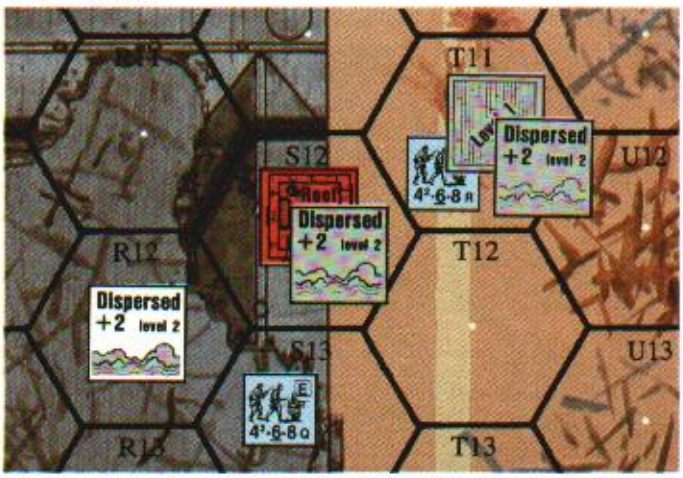
Squad N has a LOS to all other rooftop squads as well as to squads E, G, J, K, L, M and O.

Squad O has a LOS to squads I, J, K, L, M and N. It has no LOS to rooftop squads B, D, and F as they are ½-level higher than squad O. If Factory L17 were only a 1½-level Factory (i.e., it had no printed stairwell) squad O would then have a LOS to all rooftop squads of the L18 Factory as well as to squads C, E and G.

5.44 *EC & WEATHER:* All effects of EC and Weather apply in a Roofless Factory Hex despite the latter's being a building. However, of these effects, only Fog/Mist [EXC: Mist due to Rain or Falling Snow; E3.52, E3.711] can ever apply in the *roofed* hexes of such a Factory.



5.441 *WIND & SMOKE:* "No Wind" is always in effect in a Roofless Factory Hex from ground level to that Factory's highest full-level elevation. An Original SMOKE source in a Roofless Factory Hex *does* Drift if there is a Mild Breeze, but only at ≥ that Factory's *full*-level height equivalent. Such Drifting SMOKE is placed on a Level counter corresponding to the height of the Factory (e.g., on a Level One counter if Drifting in/from a 1½-level Factory, or on a Level Two counter if Drifting in/from a 2½-level Factory) in each hex it Drifts into [EXC: it is placed on a Roof counter if Drifting into a roofed hex of that Factory]. Such Drifting SMOKE rises from the Level/Roof counter it is placed on to the same height as that of its Original SMOKE source.



EX: The wind is blowing to the northeast. The Original (level two) smoke source in R12 (in a level 1½ Factory) Drifts into S12 (at rooftop level). Since all *Drifting* SMOKE from an Original SMOKE source in a Roofless Factory Hex is at > ground level, the squads at ground level in the illustration have unhindered LOS to each other. If squad R were to fire at a rooftop-level unit in S12 the smoke Hindrance would be +4 (+2 for the first-level smoke in T11 and +2 for the rooftop-level smoke in the target hex; A24.8 would not apply since the in-hex smoke is not in the firer's Location). Were the R12 Factory 2½ levels high, level-two smoke in the Factory would not Drift because the 2½-level S12 Factory is higher than the level-two smoke, thereby preventing its Drift. However, if the smoke in R12 was a level-four terrain Blaze (emanating from burning rubble or a Burning Wreck) then the Drifting smoke in S12 would be placed on a Level Two counter.

5.45 *INDIRECT FIRE:* Indirect Fire is allowed from a Roofless Factory Hex, but AA fire vs Aerial units is not. A rooftop unit with LOS to an adjacent ground-level unit in a Roofless Factory Hex may Spot for that unit (see the entry for **"Squad H"** in the EX at the top of this page). Indirect Fire vs a unit in a Roofless Factory Hex—even one that is Fortified—receives a +2 TEM (+1 for Factory and +1 for debris).

5.46 *RUBBLE:* A Roofless Factory Hex can still be rubbled (see also 5.34).

5.47 *AERIAL:* The Sighting TC (E7.3) DRM vs a unit in a Roofless Factory Hex is always +2—not +3. Aerial fire vs a unit in a Roofless Factory Hex—even one that is Fortified— receives a +2 TEM (+1 for Factory and +1 for debris).

5.48 *NVR/ILLUMINATION:* In a night scenario NVR applies in the normal manner in all Roofless Factory Hexes [EXC: LOS to *roofed* Factory Locations; 5.43]. Starshells/IR can Illuminate a Roofless Factory Hex. A Starshell may be fired from an Interior Roofless Factory Hex.

5.5 *GUTTED FACTORY:* A Gutted Factory represents a building that has been burnt-out from previous fighting. Hence such a building is never created *during* a scenario; it only appears as per SSR or during the RePh of a *RB* Campaign Game and should be marked by placing a Gutted counter in any hex of that Factory. All exterior and Interior Factory walls still exist normally unless rubbled (5.34).

5.51 *KINDLING:* A Gutted Factory Location may *never* catch Fire in any way (i.e., it is not Burnable Terrain) [EXC: if rubbled].

5.52 *ROOFLESS:* Each hex of a Gutted Factory is a Roofless Factory Hex, but its Obstacle (and Hindrance; O.4A and 1.1) height remains the same [EXC: if rubbled].

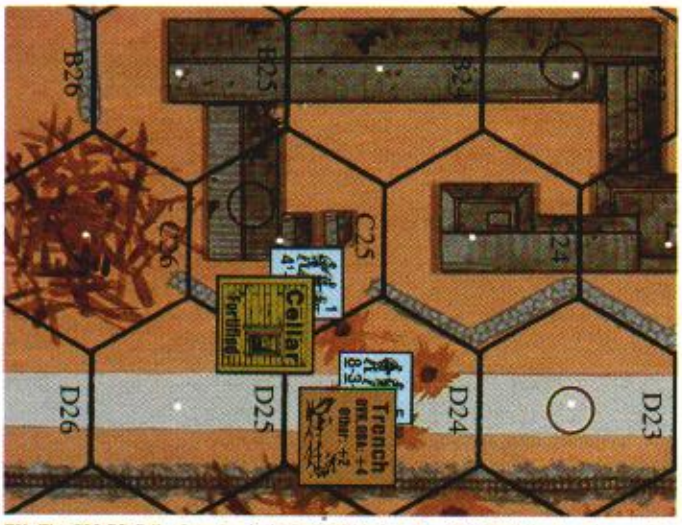
5.6 *GUNS:* All categories (C2.2) of Guns may set up in a *RB* Factory. A Gun may enter/exit a *RB* Factory via a Vehicular-Sized Entrance (using the Entrance's movement benefits) or via another non-Interior hex of that Factory [EXC: B23.93]. However, entry/exit via a non-Vehicular Sized Entrance is allowed only if being Pushed, in which case both normal building-entry Infantry MF costs and that Factory hex's TEM apply as Manhandling DRM, even if exiting that Factory.

6. *RB* CELLARS

6.1 All multi-hex, non-Factory buildings depicted on the *RB* map contain beneath their ground-level Location (i.e., at *building* level −1) a *RB* Cellar level (beneath which is that hex's sewer level, if any).[6] A *RB* Cellar Location is considered the equivalent of another non-rooftop building Location in that hex (even for falling rubble [B24.12] and Victory Condition purposes) except as specified otherwise. The *RB* Cellar level is ignored when determining the Base Level of a building hex.

6.11 *FORTIFIED:* A *RB* Cellar Location is always considered to be a Fortified Building Location with a TEM of +4 [EXC: +3 if wooden]. All Fortified Building rules apply except as stated otherwise. A *RB* Cellar Location can be Breached (B23.9221) only across a hexside that is common to an ADJACENT *RB* Cellar Location.

6.2 *ENTRY:* Only Infantry/SW may set-up-in/enter a *RB* Cellar, and their presence therein is indicated by placing them *beneath* a Cellar counter. Infantry may enter/exit the *RB* Cellar *level* only via a Stairwell, Manhole, or a "connecting" Trench or Tunnel, and only as per B23.922 [EXC: see O.2A and SSR RB6]. Infantry already in a *RB* Cellar may directly enter an adjacent *RB* Cellar Location only if the two hexes involved share a *building* hexside, as determined by the building's depiction [EXC: if Rowhouse].



EX: The C25 *RB* Cellar Location is ADJACENT only to the B25 *RB* Cellar Location and the C25 ground-level building Location. It is not ADJACENT to the *RB* Cellar Locations of B24 and C24, as hex C25 does not share a building *hexside* with either.

6.21 All Trench "connections" (SSR RB6), Manholes, and Tunnel entrances/exits "open into" the *RB* Cellar level if it exists in that hex [EXC: if the ground level above the *RB* Cellar has been Rubbled; 6.6]; otherwise, Sewer/Tunnel (B8.) and Trench (B27.5) rules are unchanged [EXC: a tunnel's entrance and exit Locations may be at different levels].

EX: See the 6.2 illustration. The squad in the D24 trench may directly enter the C25 (or C24) *RB* Cellar Location at a cost of two MF (see also SSR RB6). The only other Locations from which the C25 *RB* Cellar Location may be entered are the two Locations ADJACENT to it (see the 6.2 EX) or via Sewer movement (since C25 is a Manhole Location) or a connecting tunnel.

6.3 *LOS:* Infantry in a *RB* Cellar tracing LOS *outside* of their building's depiction to a non-ADJACENT Location do so as if entrenched at ground level (B9.21), and trace LOS to an ADJACENT Location in the normal manner (B23.25; B8.2). There is no LOS between adjacent *RB* Cellar Locations across a Rowhouse black bar hexside [EXC: if Breached; B23.711]. A unit in a *RB* Cellar Location may never claim Wall Advantage.

EX: See the 6.2 illustration. The squad in the C25 *RB* Cellar has a LOS to the ADJACENT *RB* Cellar Location in B25 (despite the actual LOS going outside the building depiction). However, squad B does not have a LOS to hex D23 (due to wall hexside C24-D24), since it traces LOS *outside* of its building depiction to a non-ADJACENT Location as if entrenched at ground level.

6.4 *FIRE EFFECTS:* The *Inherent* FP of a unit/FG in a *RB* Cellar is halved as Area Fire if the LOF leaves their building's depiction and is *not* traced to an ADJACENT *RB* Cellar Location, and the US# of the unit(s) *currently* using such Inherent FP is ≥ 3. (A leader directing fire from an *RB* Cellar Location does not add his US# for this calculation.) Otherwise, a *RB* Cellar has no effect on the use of SW/Inherent-FP other than those normally caused by being fired in a building. A DC in a *RB* Cellar may be Thrown only into an ADJACENT Location.

6.5 *BLAZE SPREAD:* A Blaze may spread from (or to) a *RB* Cellar Location only to (or from) an ADJACENT Location.

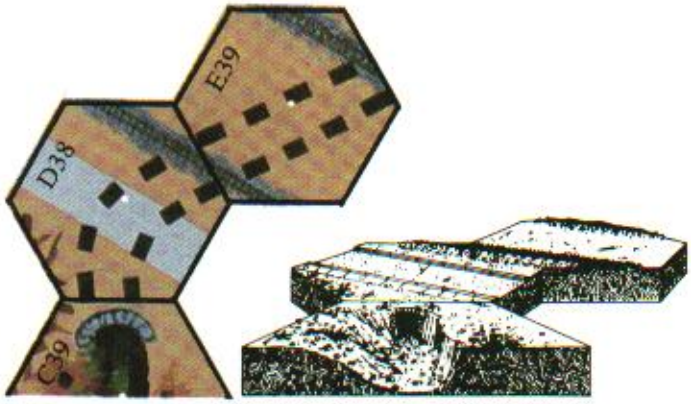
6.6 *RUBBLE:* A *RB* Cellar Location can be rubbled like any other building Location. If a *RB* Cellar Location is rubbled, it and *all* other building Locations in that hex cease to exist and the appropriate Rubble counter is placed at *ground* level in that hex. All occupants, weapons, Tunnel-entrances/exits and Manholes in that hex are eliminated, as is its Fortified Building status (if any), and an AFV can no longer fall into it (6.62; B24.4). If the ground level Location above a *RB* Cellar is rubbled, the appropriate Rubble counter is placed at ground level on top of a Cellar counter. The *RB* Cellar Location beneath such still exists, but all LOS out of that Location across a non-building hexside is blocked. Trenches no longer "connect" to a *RB* Cellar Location if the ground level Location above it has been rubbled, though a tunnel entrance/exit and Manhole are unaffected.

EX: The ground and first level Locations of M6 have been rubbled as signified by a stone rubble counter on a Cellar counter in that hex. Movement and LOS from *RB* Cellar Locations L5 to M6 (and vice-versa) are still possible. However, if the rubble counter were placed in the hex not atop a Cellar counter (thus signifying that *all* building Locations in that hex are rubbled at ground level), the *RB* Cellar Location in that hex would cease to exist. Movement at *RB*-Cellar-level directly from L5 to N5 (and vice-versa) via M6 would not be possible without first ascending to ground level in L5 and N5.

6.61 *STAIRWELL:* A stairwell between the *RB* Cellar level and ground level is affected in the normal manner if that ground-level Location is rubbled (B24.4).

6.62 *COLLAPSE:* The B23.41 cellar rules apply unchanged to a *RB* Cellar. [EXC: An AFV falls into an *RB* Cellar if the Original colored dr of the Bog Check is ≥ 4. If the crew of such an AFV survives, it may automatically attempt to Scrounge the AFV and the crew is then placed in the *RB* Cellar Location instead of at ground level. In all cases the AFV is eliminated and leaves no wreck. Each Infantry unit in such a *RB* Cellar Location must take an immediate NMC; if it fails this NMC a dr (△) must then be made for each SW it possesses: a 6 eliminates that SW and a 4-5 result malfunctions it.] The removal of an AFV for falling into a cellar in a single hex building does not create a *RB* Cellar Location in that hex.

6.7 *ENCIRCLEMENT:* The principles of A7.72 (Upper Level Encirclement) do not apply to *RB* Cellar Locations; i.e., a unit in a *RB* Cellar is not Encircled merely by having no exit to ground level.[7]



7. CULVERT

Culvert
LOS to ADJACENT Loc. only

7.1 The Culvert in hexes D38 and E39 represents a subterranean gully[8] and as such is Open Ground. On the *RB* map it exists only at level 0 and is indicated by the thick black, dashed lines representing the underground passage. A unit IN a Culvert is placed beneath a Culvert counter and has a LOS only to ADJACENT gully/Culvert Locations. Overstacking may never occur IN a Culvert. All rules pertaining to subterranean units/Locations apply unchanged (e.g., E1.923).

7.2 *ENTRY:* Infantry enter a Culvert as if entering INTO a gully but may do so only from IN an ADJACENT gully or Culvert Location. No Vehicle/Cavalry/Horse/mounted-Cycle may enter INTO a Culvert. Cycles may be portaged INTO a Culvert but may never be mounted IN such. Only INF/AT Guns that are small targets (C2.271) and MTRs may be set-up-in/Manhandled-INTO a Culvert.

7.3 *INDIRECT FIRE:* A Mortar may not fire from IN a Culvert, nor does Indirect Fire affect units IN one.

7.4 *CREST:* Crest status may not be gained in a Culvert hex, nor may it be gained along a gully-Culvert hexside (hexsides C39-D38 and E39-F39).

7.5 *SNIPERS:* A unit IN a Culvert is considered a non-target (A14.22) vs Sniper attacks.

Minefield 6

7.6 *MINES:* Non-HIP A-P mines may be setup IN a Culvert but may be eliminated as per non-HIP A-T mines on a paved road Location (B28.53). No other Fortification [EXC: Roadblock; SSR RB5] may be setup IN a Culvert.

8. GULLY ENTRANCE HEXSIDE

8.1 A hex containing a small portion of dark green gully artwork (EX: hex DD2) along one of its hexsides (EX: hexside CC3-DD2) is not a gully hex, but that hexside is a gully hexside. When a unit IN a gully hex crosses such a hexside to a non-gully hex (or vice versa), it is not changing elevation.





9. STORAGE TANKS

9.1 Any obviously round structure (EX: hexes GG28 and DD29) represents a Storage Tank[9], which is a 1½-level obstacle with no Rooftop Location and is Concealment Terrain with a +1 TEM. However, while its Location is Encircled (A7.7) this TEM is reduced to 0 and it is not considered Concealment Terrain. It is *not* a building for any purpose, nor can it catch Fire in any way.

9.2 *ENTRY:* Infantry pay one MF to enter a Storage Tank hex. Vehicular entry is possible only via VBM. A Gun may neither set up in nor enter, nor may a dm 76-82mm mortar be assembled in, such a hex. The structure itself may *never* be entered/Scaled/Climbed by any unit.

10. MOL-PROJECTOR

MOL-P ◊ AT X6

10.1 The MOL-Projector[10] is a crewed, 2PP Russian LATW ordnance-SW with its own To Hit Table printed on the back of the counter. This TH Table is used vs both armored and unarmored targets in the same manner as a BAZ except as noted otherwise below.

2-2-8

10.2 *USAGE:* Only a Russian crew, or two Russian SMC (as per C12.21), may use a MOL-Projector with neither Captured- nor non-qualified use (A21.13) penalties. A Russian non-heroic leader may use one *with* non-qualified-use penalties. A Russian hero may use one as per A15.23. A MOL-Projector is not a SCW, has no "back-blast" and does not fire HEAT; hence C13.8-.9 do not apply to its use, and it may be fired from a building/Pillbox/Rooftop. Like ordnance unable to use the Area Target Type (C13.1), a MOL-Projector must predesignate its target before firing. Moreover, in the PFPh and DFPh it must fire before the first weapon firing other than SMOKE in that phase (since it places smoke when it achieves a hit; 10.45); however, this restriction does not apply to firing in the enemy MPh. Leadership DRM do not apply to a MOL-Projector's TH DR. A MOL-Projector may not fire at a target that lies at a different elevation than the firer if the elevation difference between them exceeds the range, nor may it be fired by PRC (though it may be carried as a Passenger/Rider on a vehicle). It may not use Bore Sighting, Target Acquisition, Intensive or Sustained Fire, nor may it attempt Deliberate Immobilization.

10.3 *CH:* A MOL-Projector achieves a CH on an Original 2 TH DR (C3.7). See also 10.4-.43.

10.4 *EFFECTS:* The effects of a hit by a MOL-Projector are similar to those of a MOL attack. However, unlike the latter, a MOL-Projector attack is an ordnance attack and hence is never accompanied by a Small Arms attack.

10.41 *vs AFV:* An AFV hit by a MOL-Projector is affected exactly as if hit by a MOL (A22.612). However, the *only* possible modifications to the MOL-Projector attack's Basic TK number are: +1 for hitting an OT AFV; +1 for a rear Target Facing hit; and doubling due to a CH. A hit also causes a 4-FP Specific Collateral Attack vs an AFV's Vulnerable PRC.

10.42 *vs UNARMORED VEHICLE:* An unarmored vehicle hit (or Partially Armored Vehicle hit in an unarmored Aspect; C3.9) by a MOL-Projector is attacked on the ★ Vehicle Line of the IFT using a Kill number of 9. A CH doubles this Kill number to 18.

10.43 *vs INFANTRY/GUN:* An Infantry-target/non-vehicular-Gun hit by a MOL-Projector is affected exactly as if hit by a 4-FP HE attack. A CH causes an 8-FP attack with applicable reversed TEM (or, vs the Gun, eliminates it and its manning Infantry).

FLAME
<2: Clear
<1: Keeper

10.44 *vs TERRAIN:* A MOL-Projector hit can cause a Flame in Burnable Terrain as per A22.6111, but uses the colored dr of the TH DR. (An Original 6 dr has no adverse effect—but see 10.5.)

Dispersed
+2 level 2

10.45 *SMOKE:* A MOL-Projector hit creates a *white* Dispersed Smoke counter as per C8.52.

10.5 *MALFUNCTION:* A MOL-Projector malfunctions on an Original TH DR of 11. As signified by "X12" printed in red on the counter, an Original TH DR of 12 eliminates the MOL-Projector and creates a Flame in its Location if there is Burnable Terrain therein. Both the X# and B# are lowered by the appropriate amount if Inexperienced/Captured/non-qualified, etc., use applies.

10.6 *MOL CAPABILITY:* Both MOL-Projector and MOL capability (A22.6) may be used in the same scenario. However, both cannot be used in the same attack because, as ordnance, a MOL-Projector may not participate in a FG.

11. *RED BARRICADES* CAMPAIGN GAMES

11.1 *INTRODUCTION:* The *Red Barricades* Campaign Games offer two or more players a series of interrelated scenarios pertaining to the bloody struggle of mid-October to mid-November 1942 for the *Barrikady* ordnance factory and surrounding terrain. Using this system, a variable number of scenarios are played, each simulating a microcosm of the actual battle occurring on those days of the campaign.[11]

11.11 *BETWEEN SCENARIOS:* Between Campaign Game (CG) scenarios, players make use of a special CG phase called the Refit Phase (RePh), wherein each side takes stock of what has happened and prepares for further combat in the next CG scenario. In the RePh, Reinforcement Groups (RG) in the form of infantry companies, AFV platoons, OBA modules, and gun batteries—to name a few—may be selected by the players and purchased through the expenditure of Campaign Purchase Points (CPP). Players will soon find that the last-ditch, suicidal charge so often employed in a standard scenario may be needlessly costly to their chance of victory in the overall campaign.

11.12 *CASUALTIES:* Casualties suffered in a CG-scenario/its-subsequent-RePh must be placed in their respective "Casualties" box on the Chapter O divider (11.15), since their Casualty VP (A26.2) total is used both to determine a DRM for the CPP Replenishment Table (11.616) and for all CG non-Initial-Scenario Victory Conditions. The Casualty VP value of a unit unable to be removed (e.g., wrecked AFV) should be noted on scrap paper. (Alternatively, a player must keep a running tally of all Casualty VP suffered by his side during the CG scenario and its subsequent RePh in the "Casualty VP Tally Box" on the CG Roster; 11.14.)

11.13 *TEAM PLAY:* The three CG herein (11.51-.53) are easily adapted—indeed, recommended—for team play, with each player commanding either certain unit types (EX: one player commands all the armor and Guns, another the non-Gun-crew Infantry, of one side), or a mapsheet sector (EX: one player commands the forces on/north-of hexes numbered 20). If desired, an overall commander may determine which RG his subordinate players will receive, assigning each to the one who requires it most.

11.14 *CG ROSTER & RG PURCHASE RECORD:* The enclosed printed copies of the *RB* "CG Roster" and "RG Purchase Record" should be photocopied and used by CG players to record important CG information. See RePh steps 11.617-.619 and 11.622 for information on updating the CG Roster; see 11.6197 for specifics on the RG Purchase Record.

11.15 *CHAPTER O DIVIDER:* The Chapter O divider provides spaces for keeping each side's Eliminated units, Reinforcements available to enter (one boxed area should be used per RG) and Retained units for the next scenario. As reinforcements (and even Retained units) for each side can be kept secret, it is suggested that players make two photocopies of this divider so that each side has one on which to keep its forces out of sight of the opposing side (photocopies of the reduced-size *RB* map on the back of the divider will also be necessary for RePh step 11.6066). During the RePh the divider can be used to place purchased fortification counters in the "Fortification Counters" box until they are positioned on the map. Wounded leaders and Captured and malfunctioned Weapons may also be separated until resolved in their respective phases.

11.2 *DEFINITIONS & ABBREVIATIONS:* The following glossary explains abbreviations and important terms used frequently in the *RB* Campaign Game system.

CG: Campaign Game

CG Day: One day of a CG (whether a scenario is played or not); e.g., 17 October is the first CG Day of CG I (11.51), 18 October is its second CG Day, etc. Each CG Day (except for the first in each CG) begins upon the passage of RePh step 11.6121 ("New CG Day").

CG Roster: The sheet used to record information for each CG Day. One line is filled out for *each* CG Day. Players are urged to photocopy the facsimile provided herein.

Coy (company): A CG Infantry RG organization type.

CPP (Campaign Purchase Points): Used to buy RG in RePh step 11.619.

Depleted: A RG not received at Full Strength.

Eliminated: Units/Equipment "Eliminated" in a CG are removed from that side's OB.

Equipment: Any SW/Gun/Vehicle/Daisy-Chain that can be part of a side's OB. Any counter that can be Portaged/driven/Manhandled about on the map.

Escape: The process by which a unit attempts to leave an Isolated Area (11.6063).

FPP (Fortification Purchase Points): Used to purchase Fortifications in RePh step 11.621.

Front Line Location: Each Location that belongs to a(n) (Alternate) Hex Grain of a Perimeter marked in RePh step 11.605. Each Front Line Location is part of a "loop" of adjacent Front Line Locations.

Full Strength: An Infantry-Company/AFV-Platoon RG received *in toto*.

Idle Day: A CG Day in which both sides have picked an Idle chit (no CG scenario is played).

Initial Scenario: The first scenario of a CG (see 11.51-.53). A CG's Initial Scenario gives each side's setup/entry restrictions, Initial Scenario Victory Conditions, starting OB (including certain predetermined RG and a pool of CPP to spend on additional RG), and the SSR applicable only to that Initial Scenario.

Isolated Area: A group of adjacent Isolated Locations.

Isolated Location: A Location that lies within the Perimeter Area of *both sides*.

No Man's Land: Locations that are either outside both Perimeter Areas *or* part of a type A (i.e., unoccupied) Isolated Area (11.606).

OB (Order of Battle): All the units, Equipment and Fortifications of a side that are eligible to participate in the next CG scenario. Includes all Retained units and Equipment, plus all RG purchased since the last CG scenario.

Perimeter: All of the (Alternate) Hex Grains formed by the placement of the Perimeter markers enclosing a section(s) of the map. Although the (Alternate) Hex Grains marked out in RePh step 11.605 might produce ≥ one Perimeter "loop" (i.e., one [or more] "main loops" and one [or more] Pockets), there is still only *one* Perimeter per side.

Perimeter Area: All hexes enclosed by, and including, a side's Front Line Locations (11.605).

Pltn (platoon): A CG Infantry or AFV RG organization type.

Pocket: An Isolated section of the Perimeter Area created in RePh step 11.6056-.6058. A Pocket may *never* include any map edge hex.

RePh (Refit Phase): The series of steps performed between CG scenarios. All Chapter O rules beginning with "11.6" are *RB* CG RePh rules/steps.

Retained: All units/Equipment in a side's OB that are available for on-map/off-map setup in the next CG scenario; i.e., all that remain available from the last CG scenario, all RG purchased since the last CG scenario but prior to the current CG Day, and all RG purchased on the current CG Day and specifically allowed to set up on-map. Retained units/Equipment (important: see 11.6134 for FT/DC) should be kept in the "Retained" box on the Chapter O divider (11.15) when not on-map.

***RB*:** Red Barricades ASL module.

RG (Reinforcement Group): Usually a number of units/Equipment purchased, as a group, for use in the CG as additions to a side's OB. Also includes FPP, MOL capability, SAN increase, OBA, Pre-Registration, Offboard Observer and Observation Plane capability.

RG Purchase Record: The sheet used to record the units-in/information-for each CG RG type. One line is filled out for each RG purchased. Players are urged to photocopy the one provided herein.

Shore Hex: A level-0 land hex adjacent to a Water Obstacle hex on the *RB* map.

Stone Location: Each stone-building [EXC: rooftops and Sewers] and stone-rubble Location on the *RB* map. These Locations are used in all campaign scenario and game Victory Conditions (11.651-.53; 11.6235). On the *RB* map there are 570 total Stone Locations (which can be broken down further as follows: 171 Factory, 134 non-Factory ground level, 109 first level, 13 second level, 98 *RB*-Cellar level, and 45 rubble). Of course, this total can change during a CG due to rubbling.

Strategic Location: Each building Location [EXC: Sewer/Rooftop], rubble, Pillbox, Entrenchment, non-Water-Obstacle map-edge hex, and Shore Hex is a Strategic Location (11.6052). See also 11.6052-.6054.[12]

Strength: An Infantry Coy or AFV Pltn is received either at Full or Depleted Strength.

Weapon: Any SW/Gun/Vehicular-armament/Daisy-Chain using the IFT/TH table(s) to cause damage to the opponent.

11.3 *THE CG SCENARIOS:* The parameters of the Initial Scenario for each CG are given in 11.51-.53. Additional scenarios for that CG (and the Victory Conditions for each) are generated in a special between-CG-scenario sequence called the Refit Phase (RePh); 11.6. The CG continues until the specific CG Victory Conditions are fulfilled by one side or the completion of the last CG Day of that CG, whichever comes first. The "start lines" (or, Front Line Locations, to use the game term) in a CG scenario are determined by Locations Controlled by both sides at the end of the last-completed CG scenario.

11.31 *CG BALANCE PROVISIONS:* Should each player wish to play the same side (A26.5) the following Balance is used:

- ✚ Each German Personnel counter possessing a FT/DC is Fanatic.
- ★ Each Russian *elite* Infantry unit in a Fortified Building Location is Fanatic.

11.32 *CG SCENARIO BALANCE PROVISIONS:* The following *CG-scenario* Balance provision may come into effect *automatically*, depending the opposing sides' win:loss record:[13]

- Provided ≥ three CG scenarios have been completed, a side that has won ≤ one-third of those scenarios receives a −1 DRM to all of its CPP Replenishment DR (11.616) *and* RG-Strength DR (11.6201-.6204), *or*
- Provided ≥ four CG scenarios have been completed, a side that has won ≤ one-fourth of those scenarios receives a −2 DRM to all of its CPP Replenishment DR (11.616) *and* RG-Strength DR (11.6201-.6204).

11.4 *CAMPAIGN GAME SPECIAL RULES:* All *RB* CG SSR below apply in *all* CG scenarios.

CG1. MAP: The entire *RB* map is used in all CG scenarios.

CG2. RB SSR: All RB# SSR (see the flip-side of Scenario RB6) are in effect except as amended below.

CG3. WEATHER: EC and Weather for each CG scenario are determined in RePh step 11.618 [EXC: for each Initial Scenario they are listed in that scenario's specific SSR]. Wind Force (and direction, if necessary) is determined in RePh step 11.6241.

CG4. GAME END: The Turn Record Chart for all CG scenarios is located in the river portion of the *RB* map (the northeast corner). All CG scenarios have a variable game length. At the end of *Game* Turn 5, and at the end of each *Game* Turn thereafter, the Russian player makes a Game End dr: if it is ≤ the circled number in the current turn's box on the *RB* CG Turn Record Chart the scenario ends immediately (e.g., at the end of Game Turn 6 the scenario will end on a Game End dr ≤ 3).



CG5. GUNS: No Bore Sighting is allowed. A Gun/AFV set up in a Pillbox or Fortified Building Location may never be moved during the course of that CG [EXC: if Eliminated]. Such an AFV/Gun, once revealed, may never again set up hidden, but may be set up Concealed if able to. Otherwise, Guns may always set up hidden in CG scenarios.



CG6. OBA: Each side is limited to using a maximum of two OBA modules per CG scenario (with "usage" of a module being defined as having its radio, field phone, or Spotter [whether offboard or aerial] in play at any time during a CG scenario; see also SSR CG10). When an OBA module is selected as a RG, the player may freely select a radio or field phone [EXC: 11.51, SSR I.2]. Each Russian Security Area must be traced (as per C1.23) to *any* friendly-Controlled east-edge hex (a Security Area in a Water Obstacle is immune to being "cut"). Each German Security Area must be traced (as per C1.23) to any friendly-Controlled north- or west-edge hex. The ground-level Location of each Security Area hex must be friendly-Controlled at scenario start.

CG7. TERRAIN CHANGES: During the course of the same CG, alterations of printed mapsheet terrain are bound to occur, all of which become "permanent" (barring subsequent Clearance/Removal or Deactivation [11.6123] if applicable). All counters for Fortifications, Rubble, Breaches, Trailbreaks, Shellholes and wrecks are left on-map from scenario to scenario. Any terrain Ablaze at scenario end is resolved as per RePh 11.609. A wreck in a terrain Blaze is not removed from play; instead, it remains on-map (still treated as a LOS Hindrance) and in step 11.6091 of the next RePh will become a Burnt-Out-Wreck.[14] A Burnt-Out-Wreck may neither catch Fire nor be Scrounged, nor may it be removed from play as per D10.4. A Burnt-Out-Wreck is a LOS Hindrance in the same manner as a normal wreck.

CG8. SNIPERS: Due to the large playing area and the widespread sniper activity, each side must place two Sniper counters on the map at the start of *each* CG scenario. Both friendly Snipers must set up as per the first two sentences of A14.2, with ≥ 15 hexes between them (or as far apart as possible if they cannot set up 15 hexes apart). When a Sniper attack can occur, make a dr to determine which Sniper attacks; on a dr of ≤ 3 that side's northernmost Sniper attacks (if both are equally "northernmost", the owning player may select the one that attacks before performing the Target Hex DR; A14.2). The SAN is never altered by the presence of two friendly Snipers in play simultaneously. Any result (e.g., Pin) affecting a Sniper counter affects *both* friendly Snipers simultaneously. See also 11.6122.

CG9. REINFORCEMENTS: All *Infantry/AFV* RG *purchased on the current CG Day* [EXC: 11.6194], as well as Retained units voluntarily held off-map as reinforcements, enter on/after Turn 1 [EXC: SSR I.5, 11.51] during that scenario. Some, all or none (including individual RG units) may enter on each turn.

RUSSIAN AFV RG: enter on any friendly-Controlled (at scenario start) east-/south-edge land hex(es). If no such hex exists, the AFV may enter on any east-edge land hex(es) of hexrow JJ. All AFV of the same RG entering on the same turn must do so along the same edge.

RUSSIAN INFANTRY RG: enter on any east-edge land hex(es) of hexrow JJ that is currently friendly-Controlled and was friendly-Controlled at scenario start.[15] If no such hex exists, such Russian RG may enter along the east edge on/south-of JJ36.

RUSSIAN/GERMAN GUN BATTERY RG: may set up on-map. May also be towed (if German) or Manhandled into Locations where other friendly Infantry could enter.

GERMAN INFANTRY/AFV RG: enter on north-/west-edge land hex(es) depending on the current CG Day [EXC: entry is *always* allowed on/between A9 and N0, as well as via any edge hex that is currently friendly-Controlled *and* was friendly-Controlled at scenario start]:

17-19 October: on/between A9 and U1;
20-22 October: on/between A22 and U1;
On/after 23 October: on/between A45 and U1.[16]

Russians may still set up in their friendly-Controlled Locations, even if such a Location is in a potential German entry hex [EXC: as per 11.51's Russian setup restrictions for CG Day 17/10].

CG10. RETAINED RG: Each RG, or part thereof, not entering-play/used during a CG scenario is still available for the next CG scenario [EXC: Withdrawn AFV Platoon, 11.6142; Stuka]. Furthermore, *each* purchased RG, or part thereof (including any Pre-Registered-hex[es]/Offboard-Observer assigned to an OBA RG), is Retained until Eliminated/Recalled in a CG scenario or its subsequent RePh. For purposes of this rule, an OBA RG is considered "used" if ≥ one FFE:1 counter from that module was placed during the last scenario].



CG11. RUSSIAN FANATICISM: Each non-prisoner Russian Personnel unit in a Factory hex [EXC: if in a Sewer Location, or if currently in Bypass] is considered Fanatic (A10.8).[17] If entering from outside the Factory it becomes Fanatic immediately, prior to all Defensive First Fire against it. If wishing to advance out of a Factory in order to CC an AFV, it need not take a PAATC since it is Fanatic when required to take it. A Russian unit already Fanatic receives no further benefit. Rubble occurring in an original Factory hex is still considered part of that Factory for purposes of this rule.



CG12. COMMISSARS: Each Commissar in the Russian OB at the end of the 31 October scenario in CG III is automatically replaced by its corresponding (A25.22) unwounded leader type (e.g., a wounded 9-0 Commissar becomes an unwounded "normal" 8-0 leader).[18] Thereafter, no Commissar may be in the Russian OB.

CG13. MAP EXIT: Any Personnel (including their possessed Weapon) and Mobile AFV may exit the map during play but only from a hex that is currently friendly-Controlled and was friendly-Controlled at scenario start. Such a unit may not re-enter during that scenario, but is Retained [EXC: a broken Infantry unit must take an immediate NMC when exited; failure of the NMC results in the immediate Elimination of that unit and all its possessed Weapons] in their side's OB for the next CG Day. Players should place such counters in the friendly "Retained" box on the Chapter O divider (11.15). All counters exited off hexes (currently not and) not friendly-Controlled at scenario start are Eliminated, and count for Casualty Victory Condition purposes (but *not* for the CVP DRM of 11.616).

CG14. MASSACRE: Massacre (A20.4), if invoked during a CG scenario, is in effect only for the duration of that scenario. However, see also 11.608.



CG15. CONCEALMENT: All Infantry (and their possessed Weapon[s]) setting up in Concealment Terrain may do so concealed, regardless of LOS. Such "?" need not be purchased; i.e., they are placed freely. Otherwise, A12.12 and A12.34 apply. The side setting up first may conceal all eligible units before the other side views its setup; likewise, the side setting up second may conceal all eligible units before his opponent views that setup. "?" purchased in the RePh (11.621) are intended mainly for use as dummies.

CG16. MISCELLANEOUS: Non-captured Mobile non-halftrack AFV may not be voluntarily Abandoned. A ⅝" counter set up beneath a Trench counter (as per B27.51) may be removed from below that counter on any *subsequent* CG Day [EXC: if immobilized/wrecked].

CG17. SELF RALLY: Each side may attempt to Self Rally ≤ two (not just one) non-Disrupted broken MMC, provided (as per A18.11) both attempts are carried out before other friendly MMC Rally attempts.

CG18. SEWER RESTRICTION: On the *final* CG Day of each CG, Sewer Movement is not allowed after Game Turn 4. At the start of Game Turn 5, all units/SW in Sewer Locations are Eliminated (but do not count as Casualty VP).

11.5 *INITIAL SCENARIO:* First select one of the CG listed below (CG II—"Operation Hubertus"—is the shortest, being only five CG Days). Included there is the information needed to play that CG's Initial Scenario. For the Initial Scenario, players *begin* with RePh step 11.619 (Purchase Reinforcement Groups) and complete RePh steps 11.620-.622 (i.e., all steps preceded by a † in the RePh Sequence listing; 11.6). For each Initial Scenario, the actual Strength of each OB-given and purchased (RePh step 11.619) RG must still be determined normally (RePh step 11.620). Leaders received, if any, are determined in RePh steps 11.6205-.6207.

In the Initial Scenario of each *RB* CG the Russian sets up first and the German moves first. Furthermore, in each CG Initial Scenario, the German is assumed to have selected the "Attack" Initiative chit and the Russian the "Idle" chit (11.623) for CPP Replenishment (11.616) and ELR-Change (11.617) DRM purposes.

11.51 *RB* Campaign Game I: INTO THE FACTORY

CG Days: 17-29 October, 1942

Following the fall of the *Dzherhezinsky* Tractor Factory, the Germans turned southwards against the Red Barricades Ordnance Factory. Fighting in the *Barrikady* Housing Estate and the Silicate Plant, west of the Red Barricades, had been raging since early October. Now the Germans were reinforced by units that had pulverized the Tractor Factory. Elements of Panzer Division 14 and Infanterie Division 389 commenced their attack from the north, while elements of Panzer Division 24, Infanterie Division 305 and Jaeger Division 100 came on from the west. The Russian 84th Tank Brigade and 308th Rifle Division struggled to hold the northern and western approaches to the factory. On 15 October, as Major Pechenyuk's 650th Rifle Regiment (138th Rifle Division) crossed the Volga, vicious fighting raged north of the *Barrikady* in the *Minusinsk* area. The next day a combined force of German tanks and infantry, supported by Stukas, advanced south along *Tramvanaya* Street, striking the 84th Tank Brigade. Dug-in Soviet tanks destroyed a dozen panzers at close range, stalling the enemy infantry. The Germans attacked again, but took frightful losses from a well-placed *Katyusha* barrage. Both the 84th Tank Brigade and the 308th Infantry Division struggled on, buying precious time for the two remaining regiments (the 344th and 768th) of Col. Lyudnikov's 138th Rifle Division to cross the fire-swept river. Arriving during the early morning hours of 17 October, the men were ordered to hold the *Barrikady* at all costs. Later that morning, the Germans attacked again as the newly arrived Soviets were still preparing their positions.

CG I VICTORY CONDITIONS: The Germans win upon the conclusion of any CG scenario if they Control all but any three of the Stone Locations on/west-of hexrow U and north of the A39-JJ36 gully.

INITIAL SCENARIO VICTORY CONDITIONS: The Germans must Control ≥ 15 Stone Locations at scenario end.

INITIAL RUSSIAN OB:

Elements of the 138th Rifle Division [ELR: 3] set up ≥ two hexes from all allowed German entry hexes (see German entry restrictions): {SAN: 4}

RG: Rifle Coy ×2	Fortified Building Locations ×5
RG: SMG Coy	8 CPP
45LL AT ×2	50 FPP
2-2-8 ×2	

INITIAL GERMAN OB:

Elements of Infanterie Division 389 [ELR: 4] enter on/after Turn 1 along the north/west edge(s) on/between hexes A9 and U1 (see also SSR I.4): {SAN: 3}

RG: Rifle Coy	RG: PzKw IIIL Pltn
RG: Sturm Coy	RG: Offb'd Observer (see also SSR I.3)
RG: Btln Mortar OBA	15 CPP

INITIAL SCENARIO SPECIAL RULES:

The following SSR apply *only* to the 17 October Initial Scenario of CG I & III and their applicable RePh steps.

I.1 EC are Moderate, with no wind at start. Weather is Clear.

I.2 The Germans may purchase *none* of the following RG: AT battery, INF battery, or SAN increase. The only "Fortifications" the Germans may purchase are additional "?". No field phone may be selected by the Germans. No German RG may be purchased as "On-map" or "Reserve" (11.6194).

I.3 The German OB-given Btln Mortar RG must use the OB-given Offboard Observer RG (see German RG Chart note "°") and may freely Pre-Register (C1.73; E12.1) ≤ two hexes *prior to Russian setup*.

I.4 All map-edge hexes in the German entry area are considered German-Controlled at Initial Scenario start; all other hexes are Russian Controlled. Before set up begins, the German player places one friendly Perimeter marker in hex A9 and another in U1. Point the arrow on each directly along the map edge (Alternate) Hex Grain to the northwest corner of the map. This indicates the German-Controlled map-edge hexes at Initial Scenario start. Similarly, the Russian player should place friendly Perimeter Control markers in A10 and V1 (pointing southwards and eastwards, respectively) to indicate his friendly-Controlled map-edge hexes at CG start.

I.5 Reinforcing German (only) RG Infantry/AFV units enter on/after Game Turn 2. All other RG are available at scenario start.

AFTERMATH: By the end of the 17th, the 138th's link with the 308th Rifle Division to its right was severed, and the Germans were fighting at the factory's northwest corner. On 18 October determined German attacks broke the *Tramvanaya* Street defenses and crossed the railway embankments. To bolster the defense, factory militia units were organized and sent into the firing line. By 22 October, German assault troops had breached the Russian line at the western side of the *Barrikady*, and had broken into some of the larger workhalls. The Soviets fought desperately, their weapons blazing from fortification apertures. Smoke hung over the battle area, limiting visibility. Small areas, even single rooms in buildings, were lost and recaptured by both sides each day. It was a microcosm of the savage combat that marked the entire battle of Stalingrad. The continuous fighting became so awful, that, according to one German officer, the dogs left the city and swam across the Volga to safety.

Slowly, brute force pushed the Soviets out of a number of the large workhalls. On 24 October, the Germans advanced deeper into the factory complex, gaining footholds in the central and southwest assembly halls. The close-quarter fighting moved slowly eastwards across the landscape of devastated buildings, twisted railroads cars, slag heaps and shellholes. The Russians would crawl stealthily, their boots bound in sacking to muffle the noise, through the darkness each night to reinfiltrate lost strongpoints. At dawn, the Germans would attempt to fight their way back. The Germans, with their total air superiority, forced their foe to move in the open only under cover of darkness. To offset this, Soviet engineers linked strongholds with slit-trenches and tunnels. To kill enemy snipers, German artillery leveled entire buildings; Russian artillery meanwhile strove to disrupt German troop concentrations.

By late October, the ragged survivors of the 138th Rifle Division had been forced back to within a few hundred meters of the Volga, but still clung doggedly to several of the gutted factory buildings. The 10th Rifle Regiment, from Lt. Col. Sokolov's 45th Rifle Division, began to filter into the lines in the Bread Factory area on 26 October, just in time to prevent further breakthroughs.

11.52 *RB* Campaign Game II: OPERATION HUBERTUS

CG Days: 11-15 November, 1942

For Paulus, the battle for control of Stalingrad had become the battle of attrition he had feared. He knew that time was running short for his Sixth Army to secure the remaining tenth of the devastated city still held by Vassily Chuikov's tenacious 62nd Army. As his forces regrouped in early November, Paulus fretted. The Germans were not equipped for winter warfare and intelligence reports indicated increasing Russian activity along the flanks of the Sixth Army. He therefore called on his troops for a final desperate effort to clear the rubbled city—code-named "Operation Hubertus". Fresh German units, some four battalions of combat engineers (each with about 600 specialists trained in demolition of fortifications), would lead the assault. A dozen experimental assault guns (the *Sturminfanteriegeschuetz*, or StuIG 33B) mounting a 150mm gun would join other armored vehicles for the street fighting. At the same time, however, special aid stations and graves registration teams moved up close behind the front lines.

Behind the *Barrikady*, the German Pioniere troops were ordered to launch their initial assaults at two known Russian strongpoints—one called the "Chemist's Shop" and the other the "Commissar's House" (alternately known as the "Red House"). One German officer, Major Josef Linden, appraised the terrain in and around the gun factory with glum foreboding: "loosely hanging corrugated steel panels that creaked eerily in the wind; a perfect mess of iron parts, gun barrels, T-beams, huge craters." And every pile of rubble threatened, if not a Russian, at least a boobytrap.

The Soviet defenders (relatively fresh men of the 45th Rifle Division, levened with battle-wise veterans of the 138th Division) were well aware that a German offensive was in the offing. Newly compressed into a narrow zone barely 10km long,

with the freezing river at their backs, the stalwart soldiers of the Soviet Union dug themselves even deeper into the rubble, well protected by numerous machineguns and anti-tank guns. Steel plates had holes drilled through to expose only the muzzles of the weapons, while mines and booby-traps were strewn with abandon. Heavy artillery shells were withheld by the Front Command in anticipation of the coming offensive, but General Chuikov was able to distribute precious ammunition and food to his front-line troops.

Finally, at 0300 hours on 11 November, "Operation Hubertus" opened with a violent German barrage. When the artillery fell silent at 0630 hrs, ten battalions of German infantry, supported by tanks and engineers, stormed towards the Soviet defenders.

CG II VICTORY CONDITIONS: The Germans win upon the conclusion of any CG scenario if they Control all but any five of the Stone Locations on the map.

INITIAL SCENARIO VICTORY CONDITIONS: The Germans win if at scenario end they Control ≥ 26 more Stone Locations than they have lost (or than they started with if they lost none).

INITIAL RUSSIAN OB:

Elements of the 138th and the 45th Rifle Divisions [ELR: 3] set up east of the German Perimeter (see SSR II.2): {SAN: 4}

RG: Rifle Coy ×3	2-2-8 ×4
RG: SMG Coy	Fortified Building Location ×20
RG: Guards SMG Coy	14 CPP
45LL AT ×2	80 FPP
76L ART ×2	

INITIAL GERMAN OB:

Elements of Infanterie Division 305 and Pionier Bataillon 50 [ELR: 4] set up on/west-of the German Perimeter (see SSR II.2): {SAN: 3}

RG: Rifle Coy ×2	Fortified Building Location ×5
RG: Pionier Coy ×2	17 CPP
RG: Sturm Coy	50 FPP

INITIAL SCENARIO SPECIAL RULES:

The following SSR apply *only* to the 11 November Initial Scenario of CG II and their applicable RePh steps.

II.1 EC are Wet, with no wind at start. Weather is Clear.

II.2 The German Perimeter for the start of the Initial Scenario is defined as Hex Grains W1-W5-U6-U25-Q27-Q29-M31-S40-S45 (with the two map-edge hexes being W1 and S45). The Russian Perimeter Area consists of all Locations east of the German Perimeter. No No-Man's-Land hexes exist. Each side should place friendly map-edge Control markers as appropriate (11.6053).

II.3 The following hexes contain stone rubble at ground level: O9, P7, P8, P9, Q9, X9, S11, S12, T11, R16, S16, R29, R30, R31, S31, U33, U34, U35 and T35. Factories S18 and U23 are Gutted (O5.5).

AFTERMATH: Chuikov's troops leapt to meet the Germans head-on. The fighting was unusually bitter, even by Stalingrad standards. Quarter was neither asked nor given. Inside the great workhalls heavily armed soldiers fired point blank into each other in swirling melees. The "Chemist's Shop" fell on November 11, but the initial German efforts to storm the "Commissar's House" were repulsed. Meanwhile, elements of Infanterie Divisions 305 and 389 reached the Volga near the oil depot, thereby sealing off the remnants of Lyudnikov's division behind the *Barrikady*.

Casualties on both sides were extraordinarily heavy. Soviet and German commanders alike clamored for more men from higher headquarters and for situation reports from subordinate commands, all in vain. Entire regiments simply ceased to exist in the cauldron. Despite their horrendous losses, the Germans resumed their determined attacks on the morning of the 12th. When the combat engineers finally broke into the "Commissar's House", the surviving defenders scurried into the cellar, intent on carrying on the fight. The Germans ripped up the floorboards, tossed in full petrol cans and and ignited them with gunfire. They then lowered and detonated satchel charges. At long last the fortress was cleared!

But such attrition could not long be taken, and the rubbled city itself frustrated German efforts to coordinate operations. By the second evening, all thrusts spearheaded by the Pioniere had broken down into small, savage battles that differed little from the previous street-fighting. Scores of clashes ebbed and flowed along the Volga's bank for another three days, until finally dying out due to mutual exhaustion of the combatants. Nothing had changed. The Russians still clung to their toehold on the river bank, however reduced, thus allowing vital reinforcements their chance to debark into the ravaged city. At dawn on 19 November Chuikov and Paulus and all their weary men in the ruins heard the muted rumble of big guns carried by the wind from a new direction—far to the northwest. That barrage heralded the beginning of the Russian counterattack, "Operation Uranus"—and tolled the death knell for the battered Sixth Army.

11.53 *RB* Campaign Game III: THE BARRIKADY

CG Days: 17 October-15 November, 1942.

CG III combines CG I and CG II, "connecting" them with CG Days 30 October through 10 November. During this time the Germans' intense attacks on the factory complexes subsided, as the Germans reformed and reinforced for the planned "final" offensive in November. The Russians took advantage of the lull to continue ferrying across the balance of Sokolov's 45th Rifle Division (the 61st and 253rd Rifle Regiments), putting them into the line near Bread Factory #2 as well as the 241st Rifle Regiment of Col. Gorishny's 95th Rifle Division. Sensing the Germans' exhaustion, the Soviets launched a counterattack with the available fresh forces on 31 October. Though gains were limited to several hundred yards, the assault did prove to the Germans that their foe was not beaten.

By night and day the Soviets continued limited offensive actions with small storm groups, seizing individual houses and factory rooms in attempts to expand their meager bridgehead. Meanwhile the temperature dipped sharply and ice floes appeared on the river, making even more hazardous the Russians' reinforcement ferry trips. It was at this critical point that the Germans had selected to launch "Operation Hubertus".

CG III VICTORY CONDITIONS: The Germans win upon the conclusion of any CG scenario if they Control all but any five of the Stone Locations on the map.

All Initial Scenario parameters are as per CG I, INTO THE FACTORY (11.51).



11.6 *REFIT PHASE (RePh):* The following steps (11.601-11.625) are performed simultaneously by each side during the RePh, which occurs between CG scenarios. Each step (and sub-step) must be carried out in the numbered/lettered order given; those not applicable to the current situation may be omitted (e.g., if there are no Blazes on the map, skip RePh step 11.609). Those steps listed below preceded by an "*" are performed repeatedly until a new CG scenario is generated in RePh step 11.623; those preceded by a "#" are performed only if a CG scenario is to be played on the current CG Day. Those preceded by a "†" are the *only* steps necessary to complete before playing a CG Initial Scenario.

RePh Sequence

11.601 Conclusion of Melee
11.602 Marker Removal
11.603 Victory Determination & Rally
11.604 Encirclement & Minefields
11.605 Perimeter Determination
11.606 Isolation
11.607 Clearing the Map
11.608 Prisoners
11.609 Extinguishing Blazes
11.610 Wounded Leaders
11.611 Battle Hardening & Promotion
*11.612 New CG Day & SAN Adjustment
*11.613 Equipment Repair & Replenishment
*11.614 Armor Withdrawal
*11.615 Fortification Removal
*11.616 CPP Replenishment
*11.617 ELR Loss/Gain
*11.618 Weather & EC Determination
†*11.619 Purchasing Reinforcement Groups
†*11.620 RG Strength, Weapons & Leaders
†*11.621 Purchasing Fortifications
†*11.622 Reconnaissance
*11.623 Initiative Determination
#11.624 Wind & Unit-Setup
#11.625 Scenario Commencement





11.601 *CONCLUSION OF MELEE:* First, each unit currently on a Climb marker must be placed in either the Location it was attempting to reach or the Location it left when it began to climb, at the owner's choice. If the Location the unit is placed in contains enemy unit(s) mark them all with a Melee (not CC) marker.

All units in Melee must undergo an (unlimited) number of CC rounds until no Melees exist. Such units are free to perform any/all normal CCPh activities associated with Melee (i.e., Capture attempts, Withdrawal, attack, etc.). Consider the Russian side the ATTACKER. Following the conclusion of the first round of RePh Melee in a Location, each still-concealed unit therein loses its "?" and each AFV currently in Motion has its MOTION counter removed.

11.6011 *ORDER OF RESOLUTION:* Resolve all Melees in alphanumeric sequence (e.g., A1, then B16, then B35, then C19, etc.).

11.602 *MARKER REMOVAL:* All markers/counters listed below are removed from the map at this time:

a) FFE, SR and Barrage markers.
b) SMOKE.
c) Acquired Target markers.
d) Radios and Field Phones.
e) DM, Disrupted, Fanatic, Berserk, Wall Advantage and HD markers, Dummy stacks and Dummy Cloaking counters.
f) CX, Motion, CE, BU, Stun.
g) All still hidden/Cloaked units and Equipment are placed on-map concealed in their setup Location [EXC: hidden Set DC (11.621) may remain Hidden until step 11.6073].[19] Still-hidden Fortifications need not be revealed at this time.
h) Sewer markers. Each unit/SW beneath such is Retained.
i) Snipers.

11.603 *VICTORY DETERMINATION & RALLY*

11.6031 *CG SCENARIO VICTORY DETERMINATION:* The winner of the just-completed CG scenario is now determined (11.6235; see 11.51-.53 for Initial Scenario Victory Conditions). A Location Controlled *solely* due to having been deliberately set on Fire by the opponent (as per A26.13) does not count toward scenario Victory Conditions. Units/Equipment Eliminated in the RePh after this step (11.6031) never count for CG scenario Victory Determination nor for MMC Battle Hardening DRM (11.6112), but can be used for CPP DRM determination purposes (11.616).

11.6032 *RALLY:* After the scenario victor is determined, *all* currently broken units of both sides automatically rally, even if Disrupted. No DR are made. All Passengers/Riders are unloaded into their Vehicle's Location (a unit unloading into an A-P minefield is not immediately attacked, but 11.6042 will apply).

11.604 *ENCIRCLEMENT & MINEFIELDS*[20]



11.6041 *ENCIRCLEMENT:* Each Encircled unit [EXC: prisoner] must take a 1TC (leader DRM apply). Failure of the 1TC results in the unit's immediate Elimination [EXC: the Encircled Vulnerable PRC of an Immobile AFV are Eliminated, leaving the AFV Immobile and Abandoned]. Each prisoner that an Eliminated Encircled unit was Guarding *must* if possible be claimed by another unit in that Location friendly to the Eliminated unit. If the prisoner is not claimed, it may automatically possess any Equipment dropped by its Eliminated Guard and is considered Rearmed (A20.551). Otherwise, any Equipment that an Eliminated Encircled unit possessed is left in the Location unpossessed.

Each Encircled unit that passes its 1TC remains in its present Location (Encircled markers are not removed until step 11.6064).



11.6042 *MINEFIELDS:* An AFV in any type of minefield undergoes the appropriate type(s) of mine attack(s), fully resolved in the normal manner, as if attempting to exit the minefield Location. Each Infantry unit in an A-P minefield *hex* (including a crew that just disembarked as a result of a minefield attack) must take a NTC ([non-armor] leader DRM apply); failure of the TC causes Casualty Reduction. [EXC to both: A unit theoretically (even via Sewer Movement) able to exit the minefield *hex* without being attacked by the mines and without having to enter a minefield/enemy-Controlled *hex* need not take the NTC.] In all cases, each surviving unit remains in its respective Location in that minefield hex until removed in RePh step 11.607.

11.605 *PERIMETER DETERMINATION:* The Front Line between the Germans and Russians is now determined. In general, *each side* attempts to draw a closed "loop" (or "loops") of adjacent Locations around a section of the map by marking out connecting (Alternate [as shown in the E12.11 diagrams]) Hex Grains. The section thusly enclosed is the Perimeter Area. When *fully completed* (at the end of step 11.6066), the Perimeter Area must contain every friendly unit, and may contain some enemy units. Each side is free to try to enclose as many Locations within its Perimeter Area as it is able to, without violating any rule. If the "loop" is determined properly, each side will be able to start at any Front Line Location and, by moving only into an adjacent Front Line Location, and never re-entering the same Front Line Location, eventually end up back at that starting Front Line Location.

11.6051 *NO MAN'S LAND:* Since each side is marking a Perimeter, there will often be sections of the map outside of both Perimeter Areas and sections where the two Areas overlap. Hexes outside of both Perimeter Areas are No Man's Land, as are hexes *within* both Perimeters that contain no units; 11.6062. The overlapping hexes containing units are Isolated Areas. *A Strategic Location can never be a No Man's Land Location*, as one side will *always* Control it (at the start of CG I/III the Russians Control all non-German-entry-hex Locations; 11.51, SSR I.4).



11.6052 *CONTROL MARKERS:* Each side may (at *any time* during/after a CG scenario) place a friendly Location Control marker (supplied in the *RB* counter mix) in a *Strategic Location* (see Definitions; 11.2) that it currently Controls (or is awarded Control of, as per A26.13), if that Location's Control might affect victory determination or the alignment of either Perimeter. The Control marker must be removed (or flipped over) if the Controlling side loses Control of that Location. Note that non-Strategic Locations may still be Controlled (as per A26.11-.12) but never receive a Control marker.

11.6053 *MAP-EDGE MARKERS:* First, a Perimeter marker is placed in each friendly-Controlled non-Water-Obstacle map-edge hex that is adjacent to an enemy-Controlled map-edge hex. Each such marker is then pointed towards another friendly Perimeter marker along a map-edge (Alternate) Hex Grain that is devoid of enemy-Controlled hexes [EXC: If a map-edge hex is adjacent to two enemy-Controlled map-edge hexes, place a single marker in that hex, facing off the map]. This map-edge (Alternate) Hex Grain may even go "around the corner(s)", and along Shore Hexes, of the map if necessary (and therefore change from a normal to an Alternate Hex Grain, or vice-versa). Since the Control of map-edge Locations are especially important, players are urged to leave the map-edge Perimeter markers on the map during play (whereas others, at the player's discretion, may be removed after setup). Note that map-edge Perimeter markers usually occur in pairs, pointing towards each other.



11.6054 *PERIMETER MARKERS:* Each side now places Perimeter markers, *one at a time*, in *ground level* Locations that contain a friendly Infantry-MMC/Control-marker; it makes no difference which side places first, or if both sides place simultaneously. As each Perimeter marker is placed, it must be pointed towards a Location containing another friendly Perimeter marker, along a(n) (Alternate; E12.11) Hex Grain that is devoid of *ground level* non-SMC enemy units/Control-markers. In addition, the new (Alternate) Hex Grain may *not* overlap another *friendly* (Alternate) Hex Grain (even on the map edge) [EXC: in a hex already containing a friendly Perimeter marker]. The placement of Perimeter markers *must* continue in this manner until each side has formed a closed "loop" of connecting (Alternate) Hex Grains (including map-edge [Alternate] Hex Grains) which that side is satisfied encloses the *largest* Perimeter Area legally possible (though *at this point* not always encompassing every friendly unit). It is possible to have ≥ one such closed "loop" in this manner. The markers placed in this step "build on" the map-edge markers placed in the previous step. See the 11.6066 Perimeter EX.

11.6055 *READJUSTMENT:* Each side is free to remove or readjust their previously-placed Perimeter markers until it is satisfied with its Perimeter, as long as all of the markers are legally positioned. A side may even start over, but it must begin again with step 11.6053.

11.6056 *POCKETS:* Each friendly *unit* still outside its Perimeter Area is in a Pocket [EXC: SMC alone cannot *create* a Pocket; see 11.6059]. See 11.6057 if the unit is not at ground level. In order to enclose a ground level unit(s) within a friendly Pocket, *two* (if possible) Perimeter markers are placed simultaneously in hexes that contain such a friendly non-SMC-unit/Control-marker.[21] The two markers are pointed towards *each other*

along a(n) (Alternate) Hex Grain that is devoid of ground-level non-SMC enemy units/Control-markers. After the two markers are thusly positioned, additional Perimeter markers may (if possible) be placed (as per 11.6054) in order to expand the Pocket and enclose other friendly unit(s). However, a Pocket can *never* include any Location that was enclosed in the friendly Perimeter Area during step 11.6054, nor any map-edge hex (if the latter should happen, see 11.6058). If a Pocket consists of only one hex, no Perimeter marker is needed since the units enclosed will remain on-map and must set up in that hex for the next scenario [EXC: Escape; 11.6063]. All Pockets are Isolated Areas and part of the friendly Perimeter Area, even though physically separate from the main Perimeter Area.

11.6057 *NON-GROUND-LEVEL POCKETS:* Upper level, as well as *RB* Cellar, building Locations can also form a Pocket if a MMC present in such a Location cannot reach the ground level of that building hex except via enemy-Controlled Location(s). Such a Pocket is not indicated by Perimeter marker(s) since those markers are *always* placed at ground level; therefore, this type of Pocket is best recorded by direct notation on a photocopy of the reduced-size *RB* mapsheet (the appropriate circled level-number should suffice). All upper-level/*RB*-Cellar Pocket Locations (whether enemy- or friendly-Controlled) ADJACENT to another such Pocket Location in the same building constitute *one* Pocket, distinct from other possible Isolated Areas within that building or in adjacent hexes outside that building.

EX: If one side Controls the ground- and 2nd-level Locations in a building, while the other side Controls the 1st level (and has a MMC there), the 1st and 2nd floors together constitute one Pocket. This upper-level Pocket is separate from any possible Isolated Area that the ground level might be part of.

11.6058 If the process of expanding a Pocket adds a map-edge hex to a Pocket, that section of the Perimeter Area ceases to be a *Pocket* and is considered to be a "normal" section of the Perimeter Area (i.e., as if it had been marked out in step 11.6054). The Isolated status of any Location within that section does not change.

11.6059 At this point, each side gains Control of all *non-Isolated* Locations within their Perimeter Area and removes all enemy Control markers from such Locations. Each friendly SMC that is still *outside* of the friendly Perimeter Area is Eliminated.[22] Each Location of an Isolated Area maintains its present Control status; all No Man's Land hexes become un-Controlled. See the 11.6066 EX.

11.606 *ISOLATION:* Isolated Areas are of four types (A-D), based on the units enclosed therein:

A) No unit(s);
B) Only SMC of one or both sides;
C) MMC/vehicle(s) of one side;*
D) MMC/vehicle(s) of both sides.*

* The presence of SMC (of either side) does not alter the classification.

11.6061 *EFFECT ON UNITS:*[23] In a type B Isolated Area each enclosed SMC *must* attempt to Escape (11.6063). In a type C Isolated Area each *enemy* SMC *must* attempt to Escape. In a type C/D Isolated Area each unit/Weapon enclosed begins the next scenario with Ammunition Shortage (A19.131) [EXC: Escaped (11.6063); Eliminated (11.6094-.6095, 11.610, 11.6132 and 11.6134-.6136)]. The ID of some may need to be recorded to distinguish them from others not suffering the same penalties. See 11.6242 for setup restrictions in Isolated Areas.

11.6062 *EFFECT ON HEX CONTROL:* Each type A, and each type B, Isolated Area becomes No Man's Land. [EXC: If all of the Controlled Locations (i.e., ignoring No Man's Land) ADJACENT to a type A or B *Pocket* (only) are Controlled by one side, all Locations of that Area become non-Isolated and pass to the Control of that side. If this occurs, the enemy Front Line Locations that delineated the Pocket are no longer considered Perimeter Locations for that side.] Each Location of a type C Isolated Area is Controlled by the occupying side. Each type D Isolated Area has some Locations Controlled by each side.

11.6063 *ESCAPE FROM ISOLATION:* Any unit in an Isolated Location may attempt to Escape by making a DR on the Escape Table. If more than one Infantry unit *in the same Location* wish to Escape, they may combine themselves into one or more stacks. Each stack then makes its own Escape DR. One German squad stacked with each leader may freely Deploy. Any SW/Gun may be dropped or transferred/dismantled-(if-possible) prior to its possessor's Escape attempt. Guns cannot accompany an Escaping unit [EXC: if dm].

ESCAPE TABLE

Final DR	Infantry:	AFV:
≤ 8	Escapes[1]	Escapes
9	Escapes, Replaced[2,3]	Escapes
10	Escapes, Casualty Reduced[3]	Abandoned[4] (crew Escapes)
11	Escapes, Replaced then Casualty Reduced[2,3]	Abandoned[4] (crew Eliminated)
≥ 12	Eliminated	Eliminated[4] (CS NA)

[1] Original 2 DR always results in Escape and Heat of Battle (A15.); however a subsequent result of Berserk or Surrender Eliminates the unit(s).
[2] A unit that would become Disrupted is Eliminated instead.
[3] Use Random Selection for a stack.
[4] In current hex and facing.

DRM:

+x	(Armor-)Leader/Heroic DRM (NA to a lone SMC)
−1	If Russian*
−1	If lone, unwounded SMC
−1	If ≤ 2 hexes from a friendly-Controlled, non-Isolated hex
−1	If adjacent to friendly-Controlled, non-Isolated hex
+1	Per HS equivalency > 1 HS using the same Escape DR*
+1	Per PP > IPC being carried (unit with most excess PP determines this DRM for a stack (a stacked leader may combine to increase a MMC's IPC)*
+2	If Encircled*
+2	Captured AFV

* NA to AFV.

11.6064 *ESCAPE RESULTS:* If a unit survives the Escape attempt it and each SW portaged by it are Retained. An Original DR of 2 results in Escape and Heat of Battle; use Random Selection to determine the unit(s) affected if a stack is involved. [EXC: Any result other than Hero-Creation/Battle-Hardening results in the selected unit(s) Elimination.] All Encircled markers are now removed.

11.6065 If the Escape of a unit(s) changes the type of an Isolated Area, 11.6061-.6062 must be consulted again to determine the effects on remaining unit(s) and hex Control.

11.6066 *DRAWING THE PERIMETER:* The Perimeter determination procedure is now complete. Both sides should now record their Perimeter on a photocopy of the reduced-size *RB* map found on the back of the Chapter O divider (e.g., both sides draw their Perimeter on the *same* photocopy, using a different colored marker for each Perimeter drawn). Mark each *hexside* that a friendly Front Line Location shares with a No Man's Land *or* non-Isolated, enemy-Controlled Location. This procedure converts the connecting (Alternate) Hex Grains into a more understandable form on the reduced-size map.[24] The type (A, B, C, D) of an Isolated Area should also be recorded.

EX: This example describes the Perimeter determination procedure and its effects on Isolated units. Actions that each side takes in the various steps (11.605-.6066) are detailed. The illustration on the facing page shows the southwest corner of the *RB* map; it is important to note that *for purposes of this example* no other hexes exist (i.e., the edge of the map area depicted represents the "true" edge of the map). Perimeter markers are placed at ground level in the hex whose coordinates have been printed in **bold** in the EX text. The format "**A38** → C39" indicates that a marker is placed in A38 pointing towards another Perimeter marker in C39 along Hex Grain A38-B38-C39; "**B38**-C39 → D38" indicates that a Perimeter marker is placed in B38 pointing towards D38 along the *Alternate* Hex Grain B38-C39-D38 (as per the E12.11 Alternate Hex Grain diagrams).

In RePh step 11.6052 each side places a friendly Location Control marker in the Strategic Locations shown with such markers in the illustration. Not every eligible Location is so marked, as it is only necessary to mark a Strategic Location that might affect the Perimeters' alignment. Then, as per step 11.6053, the German player places a friendly Perimeter marker in **A41** and **M44**, pointing them towards each other along the **A41** → A45, A45-B45 → M45, M45 → **M44** map-edge (Alternate) Hex Grains (the 9-0 Commissar in hex I45 cannot disrupt the A45-B45 → M45 Alternate Hex Grain since a SMC cannot Control a hex; A26.11). The Russian player likewise places Perimeter markers in **A40** and **M43**, pointing them towards each other along the **A40** → A38, A38-B37 → M38, M38 → **M43** map-edge (Alternate) Hex Grains.

Next, in step 11.6054, the German player starts by placing a Perimeter marker in **L43**, pointing towards the map-edge marker in M44 (Hex Grain **L43** → M44). He continues by placing markers in the following order: **J41**-K42 → L43; **G42**-H41 → J41; **F42** → G42; **B42**-C43 → F42; and finally **B42**-B41 → A41. This completes a "loop" of connecting (Alternate) Hex Grains comprising the following hexes: M44, L43, K43, K42, J41, I42, H41, G42, F42, E43, D42, C43, B42, B41, A41, A42, A43, A44, A45, B45, C45, D45, E45, F45, G45, H45, I45, J45, K45, L45 and M45. These hexes are all of the German Front Line Locations and enclose the German Perimeter Area.

At the same time the German side is marking his Perimeter the Russian may be doing likewise. First, the Russian player places a Perimeter marker in **K41**, pointing towards the friendly map-edge Perimeter marker in M43 along Alternate Hex Grain **K41**-L41 → M43. He continues by placing further Perimeter markers in the following order: **G41**-H40 → K41; **C41**-D41 → G41; **C42** → C41; **C42**-B41 → A40 (map-edge Perimeter marker). The Russian Perimeter (Front Line Location) "loop" consists of the following hexes: M43, L42, L41, K41, J40, I41, H40, G41, F41, E41, D41, C41, C42, B41, B40, A40 and the remaining map-edge Perimeter hexes. These hexes are most of the Russian Front Line Locations; however, several more will be added during the subsequent steps in order to enclose "cut off" units.

In step 11.6056, the German player notes that all of his units are already successfully enclosed within/on the German Perimeter Area, therefore there are no German Pockets. However, the

Russian player notes with chagrin that he still has five friendly units not currently within the Russian Perimeter (the T-70, squads C, D, and T, and the 9-0 Commissar). Although the Russian player would like to have placed a marker in the T-70's hex during step 11.6054, he could not since there is no friendly *MMC*/Control-marker in that hex. Instead, he now places Perimeter markers simultaneously in **H42** and **I44**, pointing towards each other along Alternate Hex Grain **H42**-H43 → **I44**. A marker is then placed **H44** → I44 to expand Pocket #1 and enclose Russian squad C. Note that **H44** → H42 would not be a legal placement since it would overlap the **H42**-H43 → I44 Alternate Hex Grain in hex H43; and that it is illegal to expand the Pocket with **I41**-I42 → H42 since hex I41 is already within the Rusian Perimeter. Hexes H42, H43, H44 and I44 become Isolated Russian Perimeter hexes.

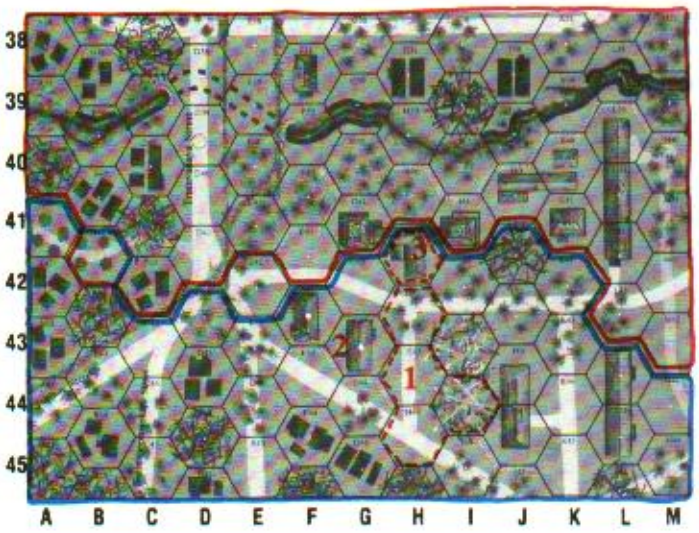
The Russian player notices that friendly squads D & T are in upper-level Pockets #2 and #3, respectively; as per 11.6057, no Perimeter markers are placed. Note that even though Pockets #2 and #3 are adjacent to Pocket #1, they are independent of that Pocket. H41 and G43 become Russian Perimeter Area *hexes* and therefore their ground levels become Isolated since they are now part of both Perimeters (the first levels were already Isolated because they are Pockets). Hex E42 is a No Man's Land hex and becomes un-Controlled (as it is outside both sides' Perimeters), while hex J38 passes to Russian Control (note that the German player could not form a Pocket with just the friendly Control marker in J38, as there must be a friendly unit present). The 9-0 Commissar is Eliminated (the Russian player could not expand Pocket #1 to include him because the leader is not an AFV/MMC/Control-marker.

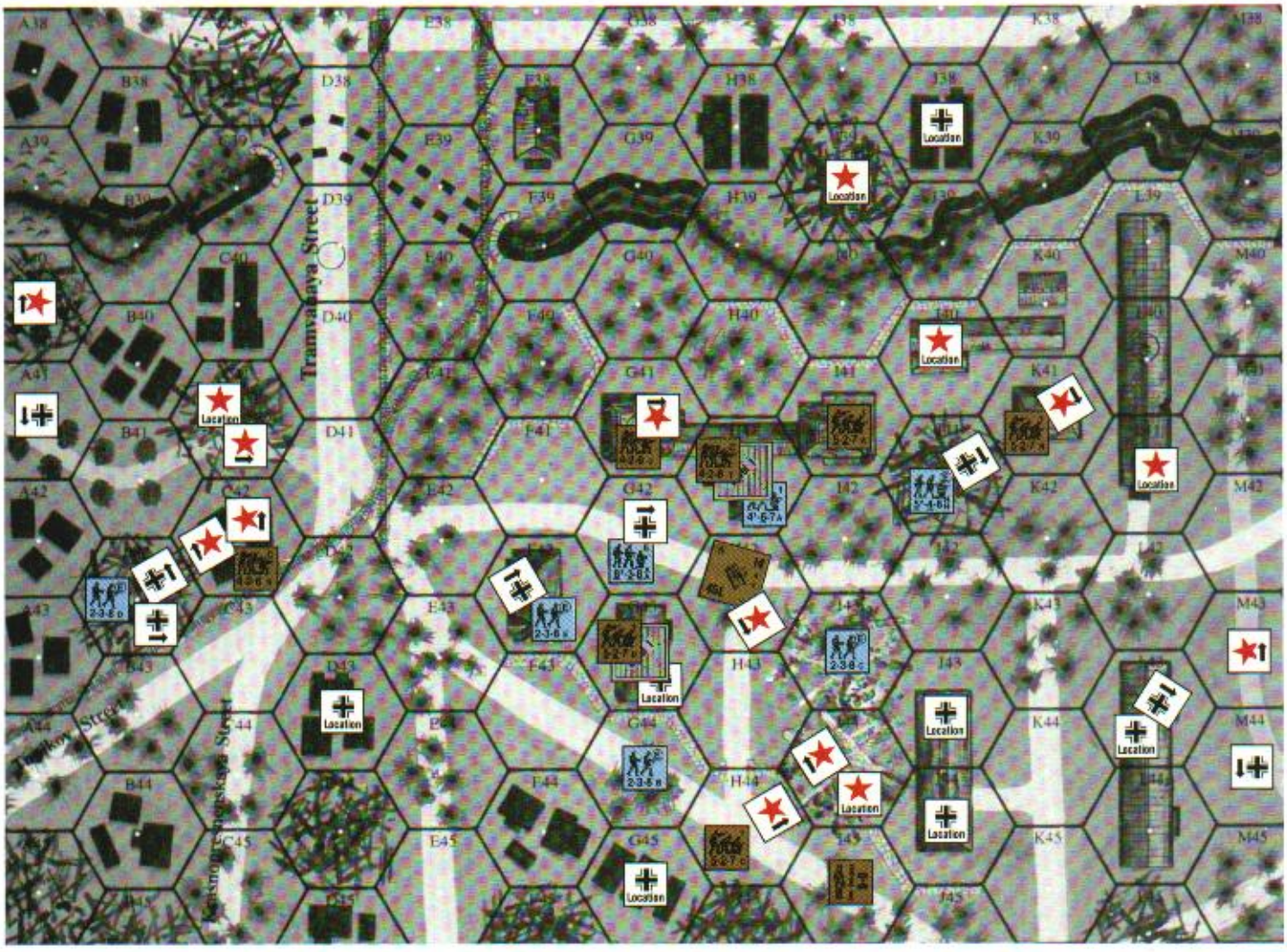
The players now proceed to RePh step 11.606, "ISOLATION". The only Isolated German unit is squad A in H41, whereas the following Russian units are Isolated: the T-70 (H42), squad C (H44), squad D (G43) and squad T (H41). German squad A and Russian squad T are in a one-hex type D Isolated Area which *includes* Pocket #3 (but is *not* in its *entirety* a Pocket); Russian Pocket #2 and the ground level in G43 are a one-hex type C Isolated Area; Russian Pocket #1 is a type C Isolated Area; hex B41 is a type A Isolated Area. As per 11.6061, all the aforementioned Isolated units will suffer from Ammunition Shortage at the start of the next CG scenario (unless such a unit successfully Escapes; 11.6063). Hexes B41 and E42 become No Man's Land (11.6062).

In step 11.6063 Russian 5-2-7 squad D attempts to Escape; it has an Escape Table DRM of −1 (−1 [Russian] +1 [extra HS] −1 [≤ 2 hexes from friendly-Controlled, non-Isolated hex G41] = −1). The Original DR is 12, modified to 11, which results in the squad being Replaced by a 4-2-6 Conscript and *then* Casualty Reduced to a 2-2-6 HS, which Escapes and is Retained in the Russian OB. In step 11.6065 the German side now gains Control of the 1st-level Pocket in G43 (vacated by the Escaping Russian squad) since the only ADJACENT Location (ground level of G43) is German-Controlled. Hex G43 is no longer part of the Russian Perimeter and is no longer Isolated.

DRAWING THE PERIMETER:

This enlargement of the reduced-size *RB* map shows how the players have marked their perimeters (11.6066). The Soviet Perimeter is in red; the German in blue. Note that both Perimeters have been recorded on the same reduced-size map.





11.607 *CLEARING THE MAP:* Each player now removes all remaining non-Isolated units/Equipment from friendly-Controlled Locations and places them in their proper box on his copy of the the Chapter O divider (11.15) [EXC: A Gun/AFV in either a Fortified Building Location or Pillbox (SSR CG5; 11.4) and Immobile vehicles are left on the map].

11.6071 *ISOLATED AREAS:* Units/Equipment in Isolated Areas are not cleared from the map, and each must be left on the map in its current Location.



11.6072 *RETAINED EQUIPMENT & SCROUNGING:* All removed items, as well as all Equipment left on-map, are considered Retained by the side Controlling its Location [EXC: hidden Set DC; see 11.6073]. Each such item may be Eliminated [EXC: an AFV becomes a Wreck or Burnt-Out-Wreck] if its Retainer wishes to do so, after any desired Scrounging attempt (D10.5).





11.6073 *HIDDEN FORTIFICATIONS:* Each still-hidden Fortification, including all Fortified Building Locations and tunnel entrance/exits in Locations currently Controlled by its purchaser's opponent, is placed on-map [EXC: A tunnel is revealed only if *both* its entrance and exit Locations are currently enemy-Controlled]. Each minefield in such a Location is revealed by placement of a Known Minefield counter (i.e., one which indicates the presence but not the strength/type of the minefield)[25]. The minefield's strength/type need not be revealed. Each on-map Fortification (i.e., from previous CG scenarios) is Controlled by the side Controlling its Location, regardless of which side Controlled it previously. A friendly-Set, hidden Set-DC in a *friendly*-Controlled Location may remain hidden or be "removed" and Retained; if in an enemy-Controlled Location it is now Eliminated instead.



11.608 *PRISONERS:* Each prisoner Guarded by a non-Isolated unit is Eliminated.[26] An Isolated Guard may retain possession of his prisoner(s) (though the latter may be freely transferred to another friendly unit in the same Isolated Area), execute them, or free them. If executed, Massacre (A20.4) will be in effect during the next CG scenario. If freed, a prisoner is automatically Retained by the side friendly to it. An unarmed MMC is Replaced by a friendly Conscript MMC of the same size; a freed SMC is Replaced by its original SMC type.



11.609 *EXTINGUISHING BLAZES:* Each Location currently marked with a *Blaze* (not Flame) counter is considered fully consumed by the fire. Players must remove each Blaze counter and make the appropriate terrain alterations when performing the following substeps (11.6091-.6097).



11.6091 *BURNING WRECK:* Each Burning Wreck (including a burning armored cupola; O.7) has its Blaze marker *transferred* to the Burnable Terrain (if any) in its Location (one of the following sub-steps will apply to the newly created terrain Blaze); otherwise, that Blaze marker is removed. The Wreck itself is replaced with a Burnt-Out-Wreck counter (see SSR CG19, 11.4) [EXC: an armored cupola that was burning is removed].

11.6092 *BRUSH, ORCHARD, WOODEN RUBBLE:* Place a Shellhole counter in the Location; the other previous terrain no longer exists.

11.6093 *STONE RUBBLE:* The stone rubble still exists, and the Location may catch Fire again in later scenarios.

11.6094 *NON-FACTORY BUILDING:* Place the correct Rubble counter (*without* a Cellar counter beneath it; 6.6) in *all* ground-level Locations of a non-Factory building that has at least one Blaze in any of its Locations. This rubble may catch Fire again in later scenarios. Each Isolated unit/Equipment that would have been confined to setting up again in that building is Eliminated, and those formerly Isolated rubble hexes become Controlled by the opponent.

11.6095 *FACTORY BUILDING:* A Factory is not reduced to rubble; rather, place a Gutted marker in any hex of it (5.5).[27] Each Isolated unit/Equipment that would have been confined to setting up again in that Factory is Eliminated, and those formerly Isolated Factory hexes become Controlled by the opponent.



11.6096 *FLAME SPREAD:*[28] Each Flame is now flipped over to its Blaze side [EXC: Each Flame in a now-Gutted non-rubble Factory Location is removed], and another Blaze counter is also placed in each Burnable Terrain hex that is adjacent to it and does not currently contain a Blaze/Flame counter. All such Blazes will be in effect at the start of the next CG scenario and are assumed to occupy all existing Burnable Terrain levels in thoses hexes. Each Isolated unit/Equipment confined to setting up in a Location now containing a Blaze is Eliminated (replace an AFV with a Burnt Out Wreck).

EX: At scenario end there is a Blaze at ground level in W10 and a Flame at 1st level in X10 (both being hexes of building W10). In RePh step 11.6094 the Blaze in W10 is removed and all three *hexes* of the building become stone rubble at ground level. The Flame at 1st level in X10 is now transferred to the ground-level rubble. In RePh step 11.6096 that Flame becomes a Blaze, and additional Blazes are placed in adjacent hexes W10, X9 and X11.

11.6097 *FORTIFICATIONS:* Each Fortification/Equipment (including a Fortified Building Location) in a non-Factory terrain Blaze Location (including a building just reduced to rubble as per 11.6094) is Eliminated [EXC: Entrenchment and Pillbox, though all Equipment therein is Eliminated]. Each item of Equipment (but *no* Fortification) in a newly-Gutted Factory (11.6095) is Eliminated.



11.610 *WOUNDED LEADERS:* Each side makes a dr for each currently Wounded leader. On a Final dr ≤ 2 the leader is Retained in his wounded state. On a Final dr ≥ 3 the leader is considered to have sustained wounds serious enough to require his evacuation (or, if Isolated, to have died of his wounds) and is Eliminated. There is a +1 drm if the leader is confined to setting up in an Isolated Area (11.6061; 11.6242).

11.611 *BATTLE HARDENING & PROMOTION*

11.6111 *RECOMBINING:* All Retained same-class HS with the same strength Factors must now Recombine (A1.32) so that no more than one of each HS type is Retained. [EXC: Isolated HS may only Recombine with other Isolated HS of the correct type allowed to set up in the same Isolated Location(s); 11.6242.]



11.6112 *HEROES & MMC:* On each side, each Retained Hero [EXC: heroic leader; 11.6113] is Eliminated; however, each such Elimination enables that side to Battle Harden one MMC of the owner's choice (in the same Isolated Area as that Hero, if applicable). Each side also makes one Secret DR to determine the number of Retained Infantry MMC eligible for Battle Hardening. In all cases, an Elite MMC (as well as a crew) that Battle Hardens becomes Fanatic (but only for the duration of the next scenario; 11.602e). No MMC may Battle Harden more than once per RePh.

MMC
BATTLE HARDENING TABLE

Final DR	# of MMC
≤ −1	5
0	4
1	3
2-3	2
4-5	1
≥ 6	—

DRM:
−3 Friendly side won this CG Day's scenario
−1 If Russian
−1 Per 20 CVP amassed by friendly side in the previous scenario



11.6113 *LEADER:* On each side, each Retained Heroic leader Battle Hardens and loses his heroic status [EXC: a heroic 10-3 or 10-0 loses his heroic status with no additional effect]. Each side also makes one Secret DR to Battle Harden a Retained Infantry leader, using that side's column on the following table [EXC: 11.6114]. If the leader selected is not currently Retained by that side the player then must Battle Harden the lowest-grade Retained non-wounded leader (if any).

LEADER
BATTLE HARDENING TABLE

Leader Type	German DR	Russian DR
10-2	≤ 2	≤ 2
9-2	3	3
9-1	4	4
9-0*	—	5
8-1†	5	6
8-0	6-7	7-8
7-0	8-9	9-10
6+1	10-12	11-12

DRM:
−2 Friendly side won this CG Day's scenario (optionally, the player may, after the DR, choose to ignore this DRM, or apply only a −1 DRM)

* Always Battle Hardens to a 10-0
† Always Battle Hardens to a 9-1

11.6114 *PROMOTION OUT OF THE RANKS:* In lieu of making a DR on the 11.6113 Table, the player may choose to either:

a) exchange one non-Isolated unwounded 8-0 Infantry leader for two 7-0s; or

b) exchange one non-Isolated unwounded 8-1 Infantry leader for one 8-0 and one 7-0.

However, a player may not use any option (a/b) that would give him > one leader per four squad-equivalents (if German), or per eight squad-equivalents (if Russian) of his currently Retained units.

11.612 *NEW CG DAY & SAN ADJUSTMENT*

11.6121 *NEW CG DAY:* Each passage of this RePh step represents the start of a new CG Day. Should no scenario be generated (RePh step 11.623) players return to this step and repeat RePh steps 11.612-.623 until one is.



11.6122 *SAN ADJUSTMENT:* Each side whose SAN is currently ≥ 4 must make a dr, with a + drm equal to that side's current SAN minus 4. A Final dr of ≥ 5 immediately reduces that side's current SAN by one. Each side whose SAN is currently zero has it automatically raised to 2 (no CPP expenditure is necessary).

The Russian SAN is currently 6; there is a +2 drm to the Russian SAN adjustment dr (6−4=2). Therefore, an Original dr of 3, 4, 5 or 6 will lower the Russian SAN to 5.

11.6123 *BOOBY TRAP DEACTIVATION:* If Booby Trap Level A or B is currently in effect, the Russian player makes a dr: an Original dr of six decreases that Level by one (i.e., Level A goes to Level B; Level B reverts to Level C). Any other dr has no effect.

11.613 *EQUIPMENT REPAIR & REPLENISHMENT*

11.6131 *AFV:* Each side performs the applicable step(s) below for each AFV in a friendly-Controlled Location.

a) Each abandoned non-Isolated AFV may remain abandoned, or may be remanned and operated (as per A21.22) by any Retained unit of that side. Such remanning unit must begin the next scenario manning that AFV.

b) Each Shocked/UK AFV must have the necessary dr (C7.42) made for it until it is no longer under the effects of Shock/UK.

c) Each manned, bogged AFV must undergo Bog Removal attempts (D8.3) until it is either unbogged or immobilized. MP expenditure is immaterial. If unbogged clear from the map if non-Isolated.

d) Each manned, immobilized AFV must make a dr on the table below to determine if the Immobilization is repaired.

IMMOBILIZATION REMOVAL TABLE

Final dr	Effect
≤ 2	Becomes Mobile*
≥ 3	No change

* Retained; clear from the map if non-Isolated.

drm:
+x Per armor leader DRM
+1 If only Non-Qualified Use (A21.13) possible
+1 If Isolated
+1 If manned by Inexperienced Crew (D3.45; 11.6207)

11.6132 *WEAPON REPAIR:* Eash side makes a separate dr on the table below for each malfunctioned non-Captured Retained Weapon.

WEAPON REPAIR TABLE

Final dr	Effect
≤ 2	Repaired
≥ 3	Eliminated*

drm:
−2 If Vehicular-mounted
−1 If Russian MG/ATR[29]
+1 If only Non-Qualified Use (A21.13) possible
+1 If Isolated

* If Vehicular-mounted, the Weapon is Disabled; if MA, the AFV is placed under RECALL (11.6141).

11.6133 *AFV MG EXCHANGE:* A Disabled non-Captured, non-Isolated AFV MG (even if Disabled in step 11.6132) may be automatically repaired by the Elimination of a friendly, non-Isolated Retained LMG.





11.6134 *FT/DC:* Each FT/DC removed from play during the preceding scenario (regardless of why it was removed) is Retained by its original owning side only if the Original effects DR causing its removal was ≤ 10; otherwise, it is Eliminated. Place each such Retained SW in the friendly side's "Retained" box on the Chapter O divider. However, the side may never Retain *in this manner* more friendly DC, nor friendly FT, than it has friendly non-Isolated Assault Engineer (only) squads at this point in the RePh.[30]

11.6135 *CAPTURED WEAPON:* Make one dr for each functioning Captured Retained Weapon: if ≥ 3 it is Eliminated (Disabled if vehicular-mounted). Each already malfunctioned Captured Weapon is Eliminated (or Disabled). Disablement of MA by either means does not cause Recall.

11.6136 *CAPTURED AFV:* A Captured AFV may remain in play if it has any functioning Weapon (even if its MA is Disabled); otherwise, it becomes a wreck. See also 11.6072.

11.6137 *SPECIAL AMMO:* Each non-Captured, non-Isolated Retained Gun (including vehicular-mounted) has all of its Depleted ammunition types (if any) restored to normal availability.

11.6138 *LOW AMMO REMOVAL:* Each Low Ammo counter on each non-Isolated unit is removed.

11.6139 *AMMUNITION SHORTAGE REMOVAL:* Each *non-Isolated* Infantry-unit/Weapon currently suffering Ammunition Shortage (11.6061) now has such restrictions lifted.

11.614 *ARMOR WITHDRAWAL:*



11.6141 *RECALL:* Each Mobile, non-Isolated Retained AFV under Recall is Eliminated. If Mobile, under Recall and Isolated, it begins the next scenario under Recall (as well as suffering Ammunition Shortage; 11.6061).

11.6142 *AFV PLATOON WITHDRAWAL:* Each side makes a Secret dr on the following table for each friendly (including Captured) non-Isolated, non-Dug-In Retained AFV Pltn (or part thereof) [EXC: German SPW Pltn] that has had ≥ one AFV of its Pltn on the map in at least one CG scenario to determine whether the Pltn (or remainder thereof) must be Withdrawn. A Withdrawn result Eliminates *each* remaining non-Isolated AFV (even if abandoned/immobilized) of that platoon, as well as each armor leader originally entered with that Platoon (if any).[31]

AFV PLATOON WITHDRAWAL TABLE

Final dr	Result
≤ 5	Retained
6	Withdrawn

drm:
−1 If friendly side's win:loss ratio is ≤ 1:2*

* Not applicable until ≥ two CG scenarios have been completed.

11.6143 *ISOLATED AFV:* An Isolated Mobile AFV that belongs to an AFV Platoon forced to Withdraw is not Withdrawn. Instead, such an AFV makes a dr in each friendly RPh of the next scenario. A dr of ≤ the current turn number immediately places that AFV under Recall. If, at scenario end, such a non-Isolated AFV is still on-map, it is then Eliminated (it is not Retained for the next scenario unless still Isolated).







11.615 *FORTIFICATION REMOVAL:*[32] Attempts may be made to Eliminate any Known wire/minefield/Entrenchment-(including an A-T Ditch) in any friendly-Controlled non-Isolated Location. A roadblock may also be rolled for removal, but only if the removing side Controls both ground-level Locations that share that hexside. If a Location contains more than one type of the above-mentioned items (all mines are considered the same "type"), the side may roll once for each, but must announce which one is currently being rolled for [EXC: all A-P mines must be Cleared from a Location before a removal attempt may be made for another same-Location non-mine fortification]. Only one attempt may be made per "item" per each such Location per completion of this RePh step. Pre-existing Labor drm are not applicable, nor does the dr create or increase Labor drm.

FORTIFICATION REMOVAL TABLE

Final dr	Result
≤ 3	Eliminated*
≥ 4†	No Effect

drm:
+2 Wire/minefield/Entrenchment is in a Front Line Location.
+2 Roadblock is along a hexside of ≥ one Front Line Location.
+1 Wire/minefield/Entrenchment is ADJACENT to—not in—a Front Line Location.
+1 Roadblock is not along a hexside of a Front Line Location, but is along a hexside of a hex that is ADJACENT to a Front Line Location.
−1 Friendly side currently Retains ≥ three non-Isolated Assault Engineer squads.

* Vs a Known minefield, this result Eliminates all mines (A-P and A-T) in the Location.
† An Original dr of 6 results in Casualty Reduction of a non-Isolated elite MMC (Assault Engineer if possible, otherwise owner's choice; if no elite MMC is available, Reduce a First Line MMC, etc.).

11.616 *CPP REPLENISHMENT:* Each side now makes a Secret DR to replenish its CPP.

CPP REPLENISHMENT TABLE

Final DR	CPP Increase
≤ 2	+18
3-4	+17
5-6	+16
7-8	+15
9-10	+14
11-12	+13
≥ 13	+12

DRM:
−y As per CG scenario Balance provision (11.32) in effect
±x Friendly Historical DRM (11.6161) for the current CG Day
+1 If the friendly side selected the "Attack" Initiative chit on the previous CG Day
−1 Per each 20 Casualty VP (A26.2) suffered by the friendly side on the previous CG Day (including friendly units[s] Eliminated since the last scenario during the current CG Day's RePh; e.g., Recalled or Withdrawn AFV; 11.614, etc.)

11.6161 *HISTORICAL DRM CHART:*[33] The DRM given in the chart below are used as DRM for the following Tables: CPP Replenishment (11.616), ELR Loss/Gain (11.617), and RG Strength determination (11.6201 & 11.6204), and also inversely to adjust the maximum number of Infantry Companies a side may purchase per CG Day (11.6195). Players may wish to write in the pertinent DRM for their side in the "Hist DRM" column on the CG Roster. Each side uses only the DRM listed for its side for the current CG Day.

HISTORICAL DRM CHART

Date	German DRM	Russian DRM	Date	German DRM	Russian DRM
17 Oct	−2	−1	1 Nov	+1	−1
18 Oct	−2	−1	2 Nov	+2	0
19 Oct	−1	0	3 Nov	+1	+1
20 Oct	0	0	4 Nov	+1	+1
21 Oct	−1	−1	5 Nov	+1	+1
22 Oct	−2	0	6 Nov	+1	0
23 Oct	−1	−1	7 Nov	0	0
24 Oct	−1	−1	8 Nov	0	0
25 Oct	−1	0	9 Nov	−1	−1
26 Oct	0	0	10 Nov	−2	−1
27 Oct	−1	−1	11 Nov	−3	−1
28 Oct	0	−1	12 Nov	−1	0
29 Oct	+1	0	13 Nov	0	0
30 Oct	+1	−1	14 Nov	+1	+1
31 Oct	0	−2	15 Nov	+1	+1

11.6162 *CG ROSTER UPDATE:* Record the final result of the CPP Replenishment DR in the "Repl" column, and on the proper line for the current CG Day, on the CG Roster. (Note: The "17/10" [17 October] CG Day's "Repl" box is shaded-in as CPP replenishment is not possible on that day). Add the current CG Day's "Repl" number and "Start" number (the latter is the number of CPP unspent from the previous CG Day), and record this sum in the "Total" box of the same line. This is the total CPP available for purchasing RG/Recon.

EX: Players have just completed the 17 October Initial Scenario of CG I, which ended in the Russians winning and amassing 44 Casualty VP. In RePh step 11.6121 the CG Day changes to 18 October. In RePh step 11.616 each side rolls for CPP Replenishment. The German Original DR is 10. This becomes a Final DR of 6 (−2 DRM [Historical DRM] + −2 [Germans *suffered* the loss of 44 Casualty VP] = −4), giving the Germans 16 CPP. Because the Germans also have two unspent CPP from the previous CG Day (as evidenced by a "2" in the "Start" box on the 18/10 CG Day of the German CG Roster), they now have 18 CPP to spend. The German player records "18" in the "Total" box for the 18 October CG Day.

11.617 *ELR LOSS/GAIN:* Each side makes a DR to determine if its present ELR changes. On a Final DR of ≤ 2 that side's current ELR increases by one, to a maximum of 4. On a Final DR of ≥ 13 its current ELR decreases by one, to a minimum of 0. Update any change in a side's ELR in the "ELR" column of the CG Roster for that CG Day. A side's ELR applies to all non-crew Infantry units of that side. Normal Battlefield Integrity [A16.] rules should *not* be used in the *RB* CG. The following cumulative DRM can apply to the ELR Loss/Gain DR:

DRM:
−1 Friendly side won yesterday's CG scenario
−2 Per Idle Day since the last-completed CG scenario
−2 Per friendly elite Infantry Coy purchased on the previous CG Day
−1 Per friendly first-line-Infantry-Coy/AFV-Pltn [EXC: SPW Pltn] purchased on the previous CG Day
+1 If friendly side selected the Attack chit on the previous CG Day (Germans are assumed to select the Attack chit for each Initial Scenario; 11.5)
+2 Per scenario completed since the start of the CG or since the last Idle Day (friendly side's choice)[34]
±x Historical DRM for friendly side

11.618 *WEATHER & EC DETERMINATION:* The Russian side makes a DR on the *RB* Weather Table to determine the weather for the current CG Day, then makes a dr for the EC. Wind Force and direction are determined in RePh step 11.6241. Record the results in their respective columns, and on the proper line for the current CG Day, on the CG Roster.

***RB* WEATHER TABLE**

Final DR	Result
≤ 2	Fog/Mist
3-6	Overcast
7-9	Clear
≥ 10	Clear & Gusty

DRM:
−1 If the previous CG Day was Overcast.

***RB* EC TABLE**

Final dr	Result
≤ 1	Wet
2-3	Moist
4-5	Moderate
≥ 6	Dry

drm:
−3 If the previous CG Day was Overcast.
−1 If the previous CG Day had Fog/Mist.
−1 If the month is November.
+1 If the previous CG Day had Dry EC.

11.619 *PURCHASING REINFORCEMENT GROUPS:* Both sides now *secretly* allot CPP for the purchase of RG. All CPP expended are subtracted from that side's current CPP total. The CPP expended, those remaining, and the RG(s) purchased may all be kept secret. Each side consults its respective RG chart for the different types of RG available, the CPP cost of each, the number of each that may be purchased during the course of the CG being played, and any special notes pertaining to each.

As each RG is selected, record its ID (and the CPP expended to purchase it) in the "RG Purchased" column, on the line for the current CG Day, on the CG Roster. After all RG are selected write the total CPP expended in the "Spent" column of the CG Roster for the current CG Day. Then write the number of CPP remaining, even if zero, in the "Left" column for the current CG Day. Any CPP remaining may be used in Recon (RePh step 11.622), or to purchase further RG in any subsequent RePh step 11.619 (-.6197).

Each RG chart contains the following columns:

11.6191 *ID:* Provides an alphanumeric identification for each RG. All AFV RG have an ID of "A#", all Infantry RG have an "I#" ID, etc.

11.6192 *GROUP TYPE:* Lists the name of the RG. This name and its ID are secretly recorded on the purchasing side's RG Purchase Record (RePh step 11.6197).

11.6193 *FULL/DEPL UNIT TYPE:* Lists the type(s) of units that each RG contains. The numbers listed immediately to the left and right of the "/" (in Infantry Company and AFV Platoon RG *only*) represent the number of that Unit Type received at Full and Depleted Strengths respectively (RePh step 11.6201). HW/MOL-P RG use 11.6203 to determine Depleted Strength; OBA module and Gun Battery RG use 11.6204. The *number* of Stukas received is determined as per E7.21.

11.6194 *CPP COST:* Lists the CPP cost of the RG regardless of its (later-determined) Strength. This is the number of CPP that must be subtracted from the purchasing side's current CPP total in order to receive that RG. AFV, and most Infantry, RG enter play during the course of a CG scenario *if purchased on that CG Day* (see SSR CG9; 11.4). Place all the counters for each such reinforcing RG in a section of the "Reinforcements" box on the Chapter O divider until the units are set up to enter. The listed cost can be altered in three ways:

a) On-map Setup: Any AFV or Infantry RG (i.e., one whose ID on the Reinforcement Group Chart begins with an "A" or "I") may be used for normal on-map setup in a scenario played on the same CG Day they are purchased. Such an RG has its CPP cost increased by two (if Russian) or three (if German) [EXC: Russian RG I5, I7 and I8 and German RG I4 may always set up on-map on their CG Day of purchase at no additional cost].

EX: Players have just completed the 17 October CG scenario of CG I. In the following RePh (step 11.612) the CG Day changes to 18 October. Later, in RePh step 11.619, the German purchases an A6 RG (Pz IVF1 Pltn) at normal (5 CPP) cost. Thus, that RG may only enter from off-map on 18 October; if no scenario is played (or the German opts to keep it out of play) on that CG Day, that RG will be available for *on-map* setup on any scenario after 18 October (that RG's purchase date). Alternately, if he wishes to have it available for on-map setup in the 18 October scenario, he must purchase it for 8 CPP on that same Day (5+3=8 CPP).

b) Reserve: Any Infantry RG (i.e., one whose ID on the Reinforcement Group Chart begins with an "I") may be purchased as a Reserve RG by spending one < its normal CPP cost. A Reserve RG must be set up on-

GERMAN REINFORCEMENT GROUP CHART

ID	Group Type	Full/Depl	Unit Type	CPP Cost	Daily Max.	CG Max. I	CG Max. II	CG Max. III
S1	Stuka	1-3	DB (see SSR **RB9**)	1[b]	1	6	3	9
A1	StuG B Pltn	3/2	StuG III$^{d(l)rw}$	4	2	2	1	3
A2	StuG G Pltn	3/2	StuG III$^{d(l)rw}$	5	1	1	1	2
A3	StuIG Pltn^{35}	3/2	StuIG 33B$^{d(l)rw}$	5	1	0	2[n]	2[n]
A4	Pz IIIH Pltn	3/2	Pz IIIH$^{d(l)rw}$	3	2	2	1	3
A5	Pz IIIL Pltn	3/2	Pz IIIL$^{d(l)rw}$	4	2	2	1	3
A6	Pz IVF1 Pltn	3/2	Pz IVF1$^{d(l)rw}$	5	2	2	1	3
A7	Pz IVF2 Pltn	3/2	Pz IVF2$^{d(l)rw}$	6	1	1	1	2
A8	PSW Pltn	4/3	PSW 222(L)$^{d(l)rw}$	3	1	2	1	3
A9	SPW Pltn	4/3	SPW 251/1^{dgr}	2	2	3	1	4
I1	Rifle Coy	12/9	4-6-7^{dlr}	7	2	9	4	14
I2	Sturm Coy	12/9	5-4-8^{dlr}	9	2	5	3	9
I3	Pionier Coy	8/6	8-3-8^{delr}	14	2	3	3	7[y]
I4	HW Pltn	2×HMG, 2×MMG, 2×$\overline{81}$*MTR^{acd}		6	1	3	2	5
O1	Btln Mortar	80+mm Bltn MTR OBA Module$^{a(p)}$		2	2	7	3	12
O2	Med Arty	100+mm OBA Module$^{a(p)}$		4	2	4	2	7
O3	Hvy Arty	150+mm OBA Module$^{a(p)}$		6	2	3	2	5
O4	Nebelwerfer	150+mm Rocket OBA Module^{ap}		2	2	2	2	4
O5	Offb'd Observer	Offboard Observer[o]		1	2	5	2	7
O6	Spotter Plane	Observation Plane (E7.6)[s]		1	1	2	1	4
G1	AT Battery I	50L PaK 38 ×3^{acd}		3	1	2	1	3
G2	AT Battery II	75L PaK 40 ×3^{acd}		4	1	2	1	3
G3	INF Battery	$\overline{75}$* INF ×3, 150* INF^{acd}		4	1	1	1	2
M1	Fortifications	20 FPP[x]		1	2	26	10	60
M2	Sniper	SAN Increase +1		1	1	13	5	30

[a] Available for on-map setup on CG Day of purchase.

[b] Apply a −2 drm to its Turn of Entry dr (E7.2) if purchased at two CPP. Each Stuka RG *must* be used on its CG Day of purchase or be forfeit (therefore, such an RG should not be purchased if the weather is Overcast or the German side anticipates being Idle (11.623).

[c] Each MG is accompanied by a 1-2-7 crew; each Gun by a 2-2-8 crew.

[d] To determine Depleted Strength see RePh step 11.620.

[e] Assault Engineers (A11.5; H1.22) *and* Sappers (B28.8; B24.7).

[f] After determining Strength (11.6201), the German may freely exchange one just-purchased SPW 251/1 for one SPW 251/10.

[g] To determine SW and (armor) Leaders see RePh steps 11.6202 and 11.6205-.6207, respectively.

[h] Not available until November 5.

[o] Offboard Observer is at level 3 in (i.e., at the second level of) any friendly-Controlled west-edge hex or north-edge hex on/west-of hexrow N. Secretly record the hex prior to Russian setup. Cost is per module. Each Offboard Observer is Retained as long as the module he is assigned to is Retained (SSR CG10; 11.4).

[p] Increase CPP cost by one per Pre-Registered hex (C1.73) purchased with module (no module may have > two Pre-Reg. hexes). Each Pre-Reg. hex is Retained as long as the module it is assigned to is Retained (SSR CG10; 11.4). Purchase of a Pre-Reg. hex(es) in the *RB* CG allows normal/Creeping Barrage (E12). A Creeping Barrage increases the cost of the module by 50% (FRU) and is not convertible (E12.771). Each Barrage (regardless of type) must have a *north-south* Hex Grain alignment (E12.11-12.2).[84] See also SSR CG6 (11.4).

[r] Must enter as reinforcements if entered on the CG Day of purchase [EXC: 11.6194]. The RG is available for on-map setup if purchased on any CG Day *prior* to that of the scenario. See SSR CG9 (11.4) for Infantry/Armor RG entry restrictions.

[s] Available for non-RCT OBA ≥ 100mm. The Spotter Plane is Retained as long as the module it is assigned to is Retained (SSR CG10; 11.4).

[x] Subject to AFV Platoon Withdrawal as per 11.6142. If > one AFV Pltn of the same type are in the side's OB, the ID's of those AFV belonging to each Pltn should be recorded in case that Pltn is subsequently Withdrawn.

[y] No more than three RG of this type may be purchased prior to 8 Nov 1942.

---

map on the CG Day of purchase (should a scenario be played on that CG Day), using the principles of Cloaking (E1.4). [EXC: A Reserve RG (or part thereof) unable to set up on-map must instead be Retained off-map on its CG Day of purchase, but thereafter may be added to all other Retained friendly units.] Each Reserve RG purchased may (at purchaser's option) automatically include up to five Dummy Cloaking counters. Such an RG must have all its Cloaking counters set up at *ground* level ≥ six hexes from the closest enemy Front Line Location (on CG Day 17/10, each potential German entry hex is considered a Front Line Location for purposes of this rule). Each Cloaked Reserve unit/stack must remain Cloaked—and may conduct no action whatsoever—until an enemy unit is within three hexes of it and is in its LOS *or* until subjected to an *enemy* attack that results in the loss of the Cloaked unit/stack's Concealment, at which time the Controlling side may (or must, if thusly *attacked*) put that Cloaking counter's contents (if any) on-map. In general, the counter(s) represented by a Reserve Cloaking counter (if any) is considered not to exist until it appears on the map, except as noted below:

- A Reserve Cloaking counter is ignored for all Overstacking purposes;
- A non-Cloaked *Dummy* stack may neither set up in nor enter a Location that contains a Reserve Cloaking counter;
- A Reserve Cloaking counter is considered a non-Target vs an enemy Sniper attack (A14.22);
- A Reserve Cloaked leader may not use his leadership benefits for any purpose;
- If a Flame/Blaze not originally Kindled by a friendly unit occurs in a Location that contains a Reserve Cloaking counter (even a Dummy), that counter may move/advance *once* to an ADJACENT, non-Blazing Location—provided it is not moving closer to an enemy unit regardless of LOS. If it cannot do so, its owner may at that time place it anywhere within three hexes of its current hex, though he may not place it closer to an enemy unit and must otherwise abide by the rules pertaining to Cloaked Reserve setup. A Reserve Cloaking counter in a Location containing a Blaze that was originally Kindled by a friendly unit may not move/advance, and is Eliminated in the next friendly MPh.

Should Cloaked unit(s) still exist at the end of the scenario, or should no scenario be played on that CG Day, all such non-Dummy Cloaked Reserve units are Retained in the normal manner but are no longer considered Reserves. Cloaked Reserve units are subject to Isolation in the normal manner.

EX: During the 18/10 CG Day's RePh the Russian player purchases an I2 RG (Gds SMG Coy) as a Reserve at a cost of 6 CPP instead of the normal 7. All the units of this RG that remain Cloaked at the end of that CG Day are automatically Retained (i.e., become available for normal, non-Reserve on-map setup).



c) Dug-In: A *Russian* AFV Platoon may be purchased at 50% (FRU) of the normal CPP cost if set up on-map as Dug-In (use D9.5-.53; see also O.7). A Dug-In AFV may set up using HIP in Concealment Terrain (including Rubble) as per normal Gun HIP rules (A12.34), but firing any Weapon or changing TCA is con-

RUSSIAN REINFORCEMENT GROUP CHART

ID	Group Type	Full/Depl	Unit Type	CPP Cost	Daily Max.	CG Max. I	CG Max. II	CG Max. III
A1	T-60 Pltn	3/2	T-60 M42[dl]rw	3	1	2	1	3
A2	T-70 Pltn	3/2	T-70[dl]rw	3	2	3	1	3
A3	T-34 M41 Pltn	3/2	T-34 M41[dl]rw	5	1	1	1	1
A4	T-34 M43 Pltn	3/2	T-34 M43[dl]rw	6	1	1	0	1
A5	KV Pltn	2/1	KV-1 M42[dl]rw	4	1	1	0	1
I1	Gds Rifle Coy	12/9	4-5-8[dlr]	9	2	2	1	6
I2	Gds SMG Coy	9/7	6-2-8[dlr]	7	2	4	3	8
I3	Rifle Coy	12/9	4-4-7[dlr]	5	2	8	4	14
I4	SMG Coy	9/7	5-2-7[dlr]	4	2	7	4	12
I5	Militia Coy	12/9	4-2-6[dl]	4	2	4	0	4[f]
I6	Engineer Coy	9/7	6-2-8[dlr]	12	1	2	1	4
I7	HW Pltn	MMG×2, HMG, .50c-HMG, 82*mm MTR×2[acd]		6	1	4	3	6
I8	MOL-P Pltn	MOL-P ×2[acd]		1	1	3	2	6
O1	Lt Arty	70+mm OBA Module[adp]		1	2	4	2	8
O2	Bdn Mortar	80+mm Bdn MTR OBA Module[adp]		1	2	6	3	10
O3	Med Arty	120+mm OBA Module[adp]		3	2	4	2	7
O4	Hvy Arty	150+mm OBA Module[adp]		5	2	4	1	6
O5	Katyusha	200+mm Rocket OBA Module[ap]		3	2	3	2	6
G1	AT Battery	45L AT ×2, 45LL AT ×2[acd]		4	1	3	1	4
G2	ART Battery	76L ART ×4[acd]		5	1	1	0	2
G3	INF Battery	76* INF ×3[acd]		4	1	3	1	4
M1	Fortifications	40 FPP[a]		1	4	39	15	90
M2	Sniper	SAN Increase +1		1	1	13	5	30
M3	MOL Capacility	MOL Capability[amx]		2	1	13	5	30

[a] Available for on-map setup on CG Day of purchase.

[c] Each SW is accompanied by a 1-2-7 crew; each Gun by a 2-2-8 crew.

[d] To determine Depleted Strength see RePh step 11.620.

[e] Assault Engineers (A11.5; H1.22) *and* Sappers (B28.8; B24.7). If other 6-2-8 are in play, record ID to distinguish. If Replaced, all Assault Engineer benefits are lost for the duration of the CG (even if the unit subsequently Battle Hardens).

[f] Available only in October.

[l] To determine SW and (armor) Leaders see RePh steps 11.6202 and 11.6205-.6207, respectively.

[m] Gives all Russian Personnel MOL capability (even if Isolated).

[p] Increase CPP cost by one per Pre-Registered hex (C1.73) purchased with a module (no module may have > two Pre-Reg. hexes). Each Pre-Reg. hex is Retained as long as the module it is assigned to is Retained (SSR CG10; 11.4). Purchase of a Pre-Reg. hex(es) in the *RB* CG allows normal/Creeping Barrage (E12). A Creeping Barrage increases the cost of the module by 50% (FRU) and is not *convertible* (E12.771). Each Barrage (regardless of type) must have a *north-south* Hex Grain alignment (E12.11-12.2).[36] See also SSR CG6 (11.4).

[r] Must enter as reinforcements if entered on the CG Day of purchase [EXC: 11.6194]. The RG is available for on-map setup if purchased on any CG Day *prior* to that of the scenario. See SSR CG9 (11.4) for Infantry/Armor RG entry restrictions.

[s] Subject to AFV Platoon Withdrawal as per 11.6142. A Russian AFV Platoon may be purchased as Dug-In (11.6194.c). If > one non-Dug-In AFV Pltn of the same type are in the side's OB, the ID's of those AFV belonging to each Pltn should be recorded in case that Pltn is subsequently Withdrawn.

[x] MOL capability is available only for the next CG scenario played.

sidered a Concealment-loss activity (A12.141). Such HIP must be purchased separately (RePh step 11.621). A Dug-In AFV's BMG (if any) is Disabled. (Such a BMG is automatically Scrounged successfully by the Russian. A number of Russian LMG, equal to the number of AFV received for the Dug-In AFV Pltn, are added to the Russian OB.) Such a Dug-In AFV may never become Mobile. Furthermore, any Retained Russian AFV may be freely Dug-In at the Russian player's option.

EX: The Russian player purchases the Rusian A3 RG (T-34 M41 Pltn) as a Dug-In AFV RG (normal CPP cost of 5) at a cost of 3 CPP (5×½=2½ [FRU]=3).

11.6195 *DAILY MAX.:* Lists the maximum number of RG of this type that may be purchased *per CG Day*. Additionally, a player may purchase no more than two *Infantry Company* RGs per CG Day [EXC: This maximum is modified *inversely* by the side's Historical DRM (11.6161) for that CG Day].

EX: On 12 November the German can purchase a maximum of three Infantry Companies (−1 Historical DRM). He can purchase two on 13 November (0 Historical DRM), but only one on 14 November (+1 Historical DRM).

11.6196 *CG MAX.:* Lists the maximum number of RG of this type that may be purchased during the course of the current CG. (Note that there is a separate column for each *RB* CG). Players must keep a written record (using the RG Purchase Record; 11.6197) of *each* RG purchased during the CG in order to know if additional RGs of that type are still available for purchase. RGs given in a CG's *Initial Scenario* OB (11.51-.53) never count against this maximum.

EX: The German side may purchase no more than seven Med Arty OBA RG during CG III.

11.6197 *RG PURCHASE RECORD:* After all RG for the current CG Day have been selected (and CPP expended for them), the RG Purchase Record must be updated. In order to record all units/Equipment received in a RG, one line of this sheet must be filled out for *each* RG purchased (or given in an Initial Scenario OB) in order to keep track of the number purchased thus far in the CG (11.6196). The listing below helps to explain how each column of the RG Purchase Record is intended to be used.

CG Day: The CG Day the RG is purchased (e.g., "17/10" for 17 October).

RG ID: The RG's alphanumeric ID (e.g., "I1" for a German Rifle Coy).

Group Type: The RG's name (e.g., "Rifle Coy" for German RG I1).

#P (Number Purchased): The *total* number of friendly RG of this Group Type purchased thus far during the CG.

#R (Number Remaining): The number of this RG Group Type still available for subsequent purchase in the CG. This number is derived by subtracting the number in that RG's #P column from the number listed in the "Maximum" column (for that RG for that CG) in that side's RG Chart.

Str.: The RG's strength, as determined in RePh step 11.6201-.6204. Record "F" for a Full or "D" for a Depleted AFV/Infantry/Gun-Battery RG; record "P", "N" or "S" (for Plentiful, Normal or Scarce, respectively) for an OBA RG.

 # Units: The number of units received in that RG of the Unit Type listed in the respective RG Chart (e.g., "12" for a Full Strength German Rifle Coy).

SW/Gun(s) Received: As each SW/Gun for that RG is determined (RePh steps 11.6202-.6204), record the number of each Weapon type received. For a Gun Battery RG simply write each Gun Caliber Size and Barrel Length of each Gun received in any convenient boxes.

Leader(s) Received: As each eligible RG's leaders are determined (RePh step 11.6205-.6207) record the Strength Factor (A10.7) of each Leader received with that RG.

Other: This column may be used to record miscellaneous information, such as an (Offboard) Observer's Location, Pre-Registered hex(es), MOL capability for that CG Day, etc.

On-Bd: If the RG was purchased as an On-map Setup RG, put an "O" in this box; if purchased as a Reserve RG write an "R" here; if purchased as a Dug-In (Russian) AFV Pltn put a "D" in this box. See 11.6194 for more information.

11.620 *RG STRENGTH, WEAPONS & LEADERS*

11.6201 *INFANTRY & AFV RG STRENGTH:* Using the RG Strength Table, each player makes a separate DR for each Infantry Coy, each HW Pltn, each MOL-P Pltn and each AFV Pltn he has purchased (as well as each friendly Infantry RG given in an Initial-Scenario OB; 11.5). A Full-Strength RG receives the number (of specified units) listed to the left of the "/" in its respective RG chart and line; a Depleted RG receives the number listed to the right of the "/" (11.6193).

RG STRENGTH TABLE

Final DR	RG Strength
≤ 8	Full Strength
≥ 9	Depleted

DRM:

±x Friendly Historical DRM (11.6161) for current CG Day

−y As per CG scenario Balance provision (11.32) in effect

11.6202 *INFANTRY COMPANY SW:* To determine the number of SW received by each Infantry *Company* RG, consult the chart below. A Full-Strength Infantry Company receives the entire complement of SW listed for it. A Depleted Infantry Company RG must have a Secret dr made for *each* SW listed as available to a Full-Strength Company of that same type. On an Original dr of ≤ 4 the SW is in the Company's OB; otherwise it is forfeit. Record each SW received in its appropriate column on the RG Purchase Record on that RG's line.

INFANTRY COMPANY SW CHART*

	Nationality	Coy Type	HMG	MMG	LMG	ATR	LtMTR	FT	DC
	German	Rifle	1	1	1	1	1		
✚	German	Sturm		1	2				2
	German	Pionier			2			3	5
	Russian	Gds Rifle	1	1	2	2	2		
	Russian	Gds SMG							1
★	Russian	Rifle	1	1	1	1	1		
	Russian	SMG							
	Russian	Militia		1	1	1	1		
	Russian	Asslt Eng			2			2	4

* Each SW received must set-up/enter possessed by a unit of its respective RG only during the first CG scenario in which its RG participates [EXC: if it is Retained off-map for an entire scenario].

11.6203 *HW & MOL-P PLATOON WEAPONS:* A Full-Strength HW/MOL-P Pltn receives all the Weapons and Personnel listed for it in its respective RG Chart. If the Platoon is Depleted, make a Secret dr for each such Weapon: an Original dr of ≤ 3 results in that Weapon being received (along with one crew [1-2-7 for a SW; 2-2-8 for a MTR]); if ≥ 4 that Weapon and crew are forfeit. [EXC: At least two Weapons are always received with a HW/MOL-P Pltn RG. If the Platoon's final total is < two Weapons, ignore this result; roll again for each Weapon in the Platoon, until a final total of ≥ two are received after rolling for each.] Each Weapon received must set-up/enter possessed by a unit of its respective RG only during the first CG scenario in which it participates. Record each Weapon received in its respective column on the RG Purchase Record.

11.6204 *GUN BATTERY & OBA MODULE RG:* To determine the Strength of each Gun Battery and each OBA Module RG purchased, make a Secret DR for each on the appropriate table below, applying the appropriate DRM listed in the Historical DRM Chart (11.6161). Record the Strength of the RG in the "Str." column of the RG Purchase Record on that RG's line.

✚ GERMAN OBA TABLE

Final DR	Ammo
≤ 4	Plentiful
5-8	Normal
≥ 9	Scarce

★ RUSSIAN OBA TABLE

Final DR	Ammo
≤ 2	Plentiful
3-7	Normal
≥ 8	Scarce

GUN BATTERY TABLE

Final DR	Strength
≤ 7	Full
≥ 8	−1 each type*

Gun Battery and OBA Tables' DRM:

±x Friendly Historical DRM (11.6161) for current CG Day

−y As per CG scenario Balance provision (11.32) in effect

* A depleted Battery receives one less of each *type* of Gun listed in its respective RG chart.

EX: The CG Day is 18 October. On this Day the German side has purchased a Sturm Coy, a HW Pltn and a Btln MTR OBA module. Since each of these RG is subject to Strength determination, the German now makes a separate Secret DR for each, applying the −2 Historical DRM (11.6161) for this CG Day. The respective Final DR are 10, 9 and 4, resulting in a Depleted Sturm Coy, a Depleted HW Pltn, and Plentiful Ammo for the OBA.

Since the Sturm Coy is Depleted, nine 5-4-8 are received but the types and numbers of their SW must still be determined. Five Secret dr are required, one for each SW (one MMG, two LMG and two DC) allotted to a Full-Strength Sturm Coy. For the MMG the dr is 3; for the LMG they are 6 and 4; and for the DC they are 2 and 5. Since a dr of ≤ 4 grants a SW to a Depleted Infantry Coy, this Sturm Coy receives one MMG, one LMG and one DC.

Now the units and Weapons of the Depleted HW Platoon are determined. The German makes a separate Secret dr for each Weapon (two HMG, two MMG and two 81mm MTR) allotted to a Full-Strength German HW Pltn. For the HMG the dr are 2 and 5, for the MMG they are 4 and 6, and for the 81mm MTR they are 5 and 5. Since a dr of ≤ 3 grants a Weapon to a Depleted HW Pltn, the only Weapon this RG would receive is one HMG. Therefore, the German rolls again for *each* Weapon, since, being a HW Pltn a minimum of two Weapons must be received (11.6203). This time the six dr are 3, 2, 6, 3, 1 and 5 respectively, resulting in the HW Pltn's receiving two HMG, one MMG and one MTR—plus three 1-2-7 and one 2-2-8 crews (as per German RG Chart note "*" and 11.6203).

It is even possible, using this method, to receive all Weapons for a Depleted-Strength RG (or even none for a non-HW/MOL-P-Pltn RG).

11.6205 *LEADER DETERMINATION:* For each Infantry *Company* RG purchased (or OB-given), make a Secret DR on the appropriate table below to determine the number and type(s) of Leaders received for that Company. Each Infantry leader must set-up/enter stacked with a MMC of his respective RG only during the first CG scenario in which he participates [EXC: if he is Retained off-map for an entire scenario].

✚ GERMAN LEADER TABLE

Final DR	Leader Received
≤ 1	10-3, 9-1, 8-0
2	10-2, 8-1, 8-0
3	10-2, 8-1, 7-0
4	9-2, 9-1, 8-0
5	9-2, 8-1, 7-0
6	9-1, 8-1, 8-0
7	9-1, 8-1, 7-0
8	8-1, 8-0, 7-0
9	9-1, 8-0
10	8-1, 8-0
11	8-1, 7-0
12	8-0, 7-0
≥ 13	8-0, 6+1

German Leader DRM

−2 Sturm Coy
−1 Pionier Coy
+x* Rifle Coy
+1 If Depleted
+1 If a CG II scenario

★ RUSSIAN LEADER TABLE

Final DR	Leader Received
≤ 1	10-3, 9-1, 8-0
2	10-2, 8-1
3	9-2, 9-1
4	9-2, 8-1
5	9-1, 8-0
6	9-1, 7-0
7	8-1, 8-0
8	8-0, 7-0
9	9-1
10	8-1
11	8-0
12	7-0
≥ 13	6+1

Russian Leader DRM

−2 Assault Engineer Coy
−1 Guards Coy
+1 (First Line) SMG Coy
+2 If Depleted
+3 Militia Coy

* +1 If this is the sixth, seventh or eighth *German* Rifle Coy purchased; +2 if this is ≥ the ninth *German* Rifle Coy purchased.

11.6206 *COMMISSARS:* The normal limit of two Commissars per scenario (A25.22) does not apply. After all Infantry Coy RG have been purchased and all leaders for them have been determined, a number of these *new* leaders ≤ the number of Infantry Coy RG purchased in the current CG Day's RePh may be exchanged for Commissars if this is an October CG Day. However, the number of Commissars thusly received may not exceed one per each twelve (FRD) squads (including HS equivalents) in the total Russian OB.

EX: The date is 19 October. The Russian has purchased one Rifle Coy (Depleted) and one Guards SMG Coy (Full Strength), and is now ready to determine the leaders received for each. For the Rifle Coy, the Russian makes an Original DR of 5, modified to 7 since the RG is Depleted, thus receiving one 8-1 and one 8-0 leader. For the Guards SMG Coy an Original DR of 6 is made, resulting in a Final DR of 5 (−1 Guards Coy), resulting in one 9-1 and one 8-0 leader. Since the month is October the Russian elects to exchange his newly received 8-1 leader for a 10-0 Commissar.

11.6207 *ARMOR LEADERS:* For each AFV platoon [EXC: German SPW Pltn] received (even if Depleted), that side must make a DR on the following table to determine the crew's quality. Each armor leader received for an AFV platoon must begin each scenario in an AFV of that platoon if possible (and Withdraw with that platoon if it is Withdrawn; 11.6142).

ARMOR LEADER TABLE

Final DR	Armor Leader
≤ 2	10-2
3	9-2
4	9-1
5	8-1
6-11	—
≥ 12	Inexperienced*

DRM

−1 German
+1 Russian

* All AFV of that Platoon have Inexperienced Crews (D3.45).

11.621 *PURCHASING FORTIFICATIONS:* Fortifications, which are received by spending FPP, may be purchased on each CG Day if the player has the requisite FPP (purchased in RePh step 11.619). *All FPP unspent upon the completion of this step are forfeit.*

As Fortifications are selected, the specific type (and strength, if mines) must be recorded on the CG Roster in the "Fortifications" area. However, the actual on-map positioning of Fortifications may be deferred until that side sets up for the next CG scenario.

EX: The Russian player has 40 FPP to spend on Fortifications. He buys one Fortified Building Location (10 FPP; for now, he simply writes a "1" in the "Total #" box at the bottom of the "Fortified Building Locations" area; we suggest you use a softlead pencil, as these daily totals are erased after determining the specific map Location); he then spends 18 FPP on one 6-factor A-P minefield (at the bottom of the "Mines" area in the "Total # of factors", after "A-P:" he writes "6"; finally, he spends his remaining 12 FPP buying the ability to use HIP for two squads (6 FPP), two HS (4 FPP), one crew (1 FPP), and one SMC (1 FPP) (at the bottom of the HIP Locations area he thusly writes "2", "2", "1", and "1" after "Squad:", "HS:", "Crew:" and "SMC:", respectively). Note that no actual map Locations are recorded at this time, as actual on-map placement does not occur until that side is setting up. Later, during setup (RePh steps 11.6242 and 11.6242), the player uses the tallies written at the bottom of the various Fortifications columns to determine how many such "Fortifications" he has, and records the specific Locations on his Fortification record, and erases all notations made in the various "Total #" boxes so that the tally areas may be used for subsequent Fortification purchases.

FORTIFICATION PURCHASE TABLE

Fortification Type	FPP Cost
Foxhole[1]	3/2/1[1]
Trench[1]	7
A-T Ditch[R]	21
A-P Mine	1/3 per factor[2]
A-T Mine	3/9 per factor[2,3]
Roadblock[1]	12
Wire	15
Pillbox[R]	(a + b + c) ×3[4]
Fortified Building[F1]	10[5]
Tunnel	30
HIP[F1]	5/3/2/1/1[6]
"?"[F1]	1[7]
Booby Traps[R]	40[8]
Set DC (A23.7)[F]	15[9]

[1] For 3-, 2- and 1-squad capacity respectively.

[2] German/Russian FPP cost respectively. Each side may spend no > 90 FPP per CG Day on mines. During setup, the strength of friendly-Controlled, pre-existing minefields may be increased by adding extra A-P/A-T mine factors to them (though only in allowed increments and to allowed maximums). Minefields may not be decreased in this manner. Minefield factors purchased on the above Table may never be exchanged for Boobytrap capability/increase (B28.9).

[3] Includes Daisy Chain.

[4] Add the Capacity, CA DRM and NCA DRM, and multiply the sum by three.

[5] Per building Location. A *RB* CG Fortified Building Location is never exchangeable for a Tunnel.

[6] AFV/squad/HS/crew/SMC cost respectively. No more than 10% (FRU) of a side's non-Reserve Infantry squads (plus all SW/SMC set up with them in the same Location) may set up using HIP in a daytime scenario. The 25% allocation for a Scenario Defender at night (E1.2) costs no FPP. Only the Russian may set up AFV using HIP, and must do so as per D9.5; see also Russian RG Chart note "*". Guns, and their manning *crew* may freely set up using HIP, as per A12.34. Neither side may purchase HIP for Cloaked Reserve units/"?".

[7] May be used as Dummy Reserve Cloaking counters (11.6194). See also SSR CG15 (11.4).

[8] Increases pre-existing Level to next Level (Level C to B; Level B to A). Booby Traps affect all non-Aerial Locations on the *RB* map, and are triggered only by appropriate German TC.

[9] Prior to play, a Retained DC (or a DC granted to an Infantry Company setting up on-map) may be set up using HIP in a friendly-Controlled building/rubble/bridge/pillbox/trench Location as a Set DC. Its setup Location must be recorded at that time, as must the ID of the "detonating" Infantry unit. Searching (A12.152) can reveal, and Random SW Destruction can Eliminate, a hidden Set DC.

[F] Only those Fortifications marked with a "F" may be set up in a Front Line Location. A TC taken in a Front Line Location can still cause a Booby Trap attack in the normal manner.

[1] These are the only Fortifications that may be added to an Isolated Location.

[R] Only the Russian may purchase this Fortification type.

11.622 *RECONNAISSANCE:* Each side may now make a Recon dr, provided it first expends the required CPP for this purpose. If Recon can be purchased, that side deducts one (or two, for beneficial drm on its Recon dr) from its current CPP total (presently shown in the CG Roster's "Left" column) and records the new total in the "Start" column of the next CG Day. If a side cannot or opts not to use Recon, its current CPP total is simply copied in the "Start" column of the *next* CG Day. The number in the "Start" column always shows the side's CPP total at the start of that CG Day.

A Recon Final dr is the number of *Locations* which the opponent must reveal units and Fortifications (including Fortified Building Locations) in, if in fact he had set up in them. The Recon dr is modified by the following drm based on the reconnoitering side's Majority Squad Type.

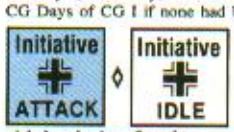
drm:	
Spent 2 CPP	+3
Russian	+1
Stealthy	+1
Lax	−1

The *number* of Locations that may be reconnoitered on each CG Day is recorded on the *RB* CG Roster sheet in the "Recon" column for the current CG Day, as the process of inspection does not occur until all on-map units have been set up for the next CG scenario. See 11.6245 for further information on the effects of Recon.

11.623 *INITIATIVE DETERMINATION:* Each side selects its Initiative for the present CG Day, either to "Attack" or stand "Idle", representing its desired tactical plans.

11.6231 *RUSSIAN ATTACK LIMITS:* In the course of each CG, the Russian may select no more than one Attack chit per four (or part thereof) CG Days completed. Therefore, with this formula, each CG has a finite number of Attack chits that may be picked by the Russian as follows—CG I: 4; CG II: 2; CG III: 8.

EX: In CG I, the Soviets selected an Attack chit for 18/10 (CG Day 2); they may not choose the Attack chit again until 21/10 (CG Day 5). However, if the Soviets wait until 22/10 (CG Day 6) to pick their first Attack chit, they could also select it again for the next CG Day (23/10; CG Day 7). Similarly, the Russian player could choose the Attack chit for each of the final four CG Days of CG I if none had been selected by him prior to 26 October.



11.6232 *PROCEDURE:* Each side takes its respective Initiative chit and secretly places it on the playing area, hidden from the opponent's view, with the chit's face-up side displaying the side's choice for the next CG scenario. The selections are then revealed simultaneously and cross-indexed on the following matrix to determine if a new CG scenario is generated and, if so, what type it will be.

INITIATIVE MATRIX

chit selected	★ Attack	★ Idle
✚ Attack	Dual Attack[1]	German Assault[1]
✚ Idle	Russian Assault[1]	Idle Day[2]

[1] Scenario generated; consult proper scenario type below for further information.

[2] No scenario generated for this Day; repeat RePh steps 11.612-.6231 until the next scenario is generated.

11.6233 *SCENARIO TYPES*

Dual Attack: Represents a CG Day when both sides have planned offensive action. Make a dr to determine which side sets up first: if ≤ 3 the Russians do; otherwise the Germans do. The side *moving* first, however, is not determined until *after all setup is complete* (RePh step 11.625).

German Assault: On this CG Day the German side is on the offensive, coming on doggedly against the prepared defenses of the Soviets. The Russian sets up first; German moves first.

Russian Assault: On this CG Day the Russians counterattack the regrouping Germans. The German sets up first; Russian moves first. At the Russian side's option, *this* CG scenario can be a Night scenario. See 11.6234.

Idle Day: Represents a CG Day in which both sides have chosen to remain relatively inactive, gathering strength and regrouping for the next attack. *Repeat RePh steps 11.612-.6233* until the next CG scenario is generated.



11.6234 *RUSSIAN NIGHT ASSAULT:* If a "Russian Assault" CG scenario has been generated, the Russian may declare it to be a Night scenario (E1.). In such a scenario, the Russians are always the Scenario Attacker and the Germans always the Scenario Defender, despite both sides setting up on-/off-map. Reinforcements entering from off-map always have Freedom of Movement (E1.21). Determine the Cloud Cover and initial Base NVR as per E1.11 [EXC: use the historical Moon Phase listing on the Moon column of the CG Roster]. Note that a result of Overcast on the NVR table does *not* invoke E3.5; Overcast weather does invoke E3.5, and also makes the Cloud Cover Overcast and the Moon Phase irrelevant.

11.6235 *RB CG SCENARIO VICTORY CONDITIONS:* The following Victory Conditions apply to the pertinent type of CG scenario (as determined in 11.6233). However, the Victory Conditions for each CG's Initial Scenario, as well as those for each CG, are given with the other information for the respective CG and its Initial Scenario (11.51-.53).

Dual Attack: The Germans win if at scenario end they have amassed more VP than the Russians. Each side receives Casualty VP, and also receives one VP for each Stone Location that it currently Controls but that was Controlled by the opponent at scenario start.

German (or Russian) Assault: The Russian wins either "Assault" scenario if he Controls all Stone Locations at scenario end. Otherwise the Attacker wins if at scenario end he Controls ≥ 24 (if German) or ≥ 12 (if Russian) more Stone Locations than he has lost (or than he started with, if he lost none) *or* if he has amassed at least twice as many Casualty VP as his opponent.

11.624 *WIND & UNIT-SETUP*



11.6241 *WIND:* Prior to setup, roll for Wind Force/Direction (B25.63-.64). If a Mild Breeze results and there is ≥ one Blaze on-map (11.6096), place Drifting Smoke counters immediately.

11.6242 *ISOLATED UNIT SETUP:* The side that sets up first (RePh step 11.6233) sets up all its Isolated Retained units/Equipment (if any), followed by the other side which does likewise (see also 11.4, CG15). In an Isolated Area (11.606), each unit may set up only in the Location in which it ended the previous scenario (as per 11.6071) or ADJACENT to that Location in a friendly-Controlled Strategic Location [EXC: a Gun/AFV in Fortified-Building-Location/Pillbox and Immobile/Abandoned vehicle may not be moved]. The Recovery of unpossessed Equipment may be attempted before play begins only if a unit sets up in its Location. For a list of the types of Fortifications that may be added to an Isolated Area see Footnote "1" of the Fortification Purchase Table (11.621). A radio/field-phone may never be set up in an Isolated Location. All Isolated units and Weapons suffer Ammunition Shortage (A19.131) [EXC: Captured Weapons; A21.11].

11.6243 *AMMUNITION SHORTAGE REMOVAL:* When a Good Order Isolated Infantry unit suffering from Ammunition Shortage begins a Friendly Player Turn in the same Location as a friendly Good Order armed Infantry MMC (that is not itself suffering from Ammunition Shortage) whose US# is ≥ that Isolated unit's, its Ammunition Shortage ceases to exist at the end of that Player Turn provided both units become TI and remain in Good Order throughout that Player Turn. A MG's Ammunition Shortage is removed whenever it is possessed by a Good Order, armed MMC not suffering from Ammunition Shortage.[38] All other Weapons suffering from Ammunition Shortage can lose that status only by ending a CG scenario non-Isolated (11.6139). Note that Ammunition Shortage does not apply to the use of a captured Weapon (A21.11).

11.6244 *NON-ISOLATED UNIT SETUP:* The side setting up first may set up the remainder of its Retained units, Equipment, purchased Fortifications, and on-map setup RG in non-Isolated friendly-Perimeter-Area Locations [EXC: Only those Fortifications marked with the "F" footnote on the 11.621 Fortification Purchase Table may be set up in a friendly Front Line Location]. Retained-units/RG not set up on the map may enter as per SSR CG9 (11.4); those kept completely out of play are still Retained for the next CG scenario [EXC: An AFV Platoon RG is subject to Withdrawal (11.6142) if any unit of it has been on the map in *any* CG scenario]. While setting up units/Equipment, the side also now determines in what specific Locations their Fortifications (RePh step 11.621) are to be set up in by writing the Locations in the respective boxes on the RG Roster sheet, under "Fortifications". Once the side setting up first has completed its setup, the other side follows the same procedure.

11.6245 *RECON INSPECTION:* After all setup is complete, each side may declare the Location(s) they wish to reconnoiter (11.622), if any. Each reconned Location must be ≤ four hexes from the nearest friendly-Controlled hex. The sides take turns declaring one Location at a time, with the Russians declaring first. "Reconned" hidden units are placed in their setup Locations concealed. The opponent also receives Right of Inspection of those units (A12.16), regardless of enemy LOS. If any hidden Fortifications are in the Location, they must be revealed and placed on-map [EXC: neither tunnels nor the *type/strength* of mines are revealed (see 11.6073 and its accompanying Footnote)]. All inspected stacks in Concealment terrain may regain any "?" they previously had, regardless of enemy LOS.

11.625 *SCENARIO COMMENCEMENT:* Players are now ready to begin the next CG scenario. Both sides announce their current ELR and SAN. If preparing for a *Dual Attack* scenario (only), determine which side moves first (if preparing to play an Assault scenario, the side setting up second always moves first; 11.6233) by making a dr. If that dr is ≤ 3 the Russians move first; otherwise the Germans do.

FOOTNOTES

1. *O.4B FACTORY ROOFTOP ACCESS POINTS:* Placing Factory stairwells in hexes containing a road hexside is done only as a convenience. Such hexes are simply easier for a player to spot. The road itself does not magically allow a unit to climb to the Factory roof; a stairwell is assumed to exist inherently in the interior of that Factory Location.

2. *O.4B FACTORY ROOFTOP ACCESS POINTS:* The extensive use of Rooftops in the *RB* playtest highlighted the fact that an inherent stairwell in *every* hex of a 1½-level Factory is simply unrealistic. Hence it was decided to "refine" things a bit by stating that all such Factories must have a SSR-designated Rooftop Access Point when the use of Rooftops is allowed. Since all *RB* Factories have at least one printed Rooftop Access Point, this sentence of O4B really applies only to future/DYO non-*RB* scenarios having Factory Rooftops in effect.

3. *1.1 DEBRIS:* Debris represents scattered cannon barrels, pipes, steel girders and wrecked machinery, as well as other "light" rubble from shelling and bombing, which littered the Red Barricades Ordnance Factory and surrounding area.

4. *2.1 RAILWAY EMBANKMENT:* Historically the Germans advanced south towards the Barrikady along the railway embankments, which were among the few features in the area affording cover against the withering Soviet fire from the factories.

5. *5.43 ROOFTOP LOS:* A rooftop unit wishing to see a lower elevation is assumed to crawl to the edge of the rooftop. The rooftop artwork overlapping into a Roofless Factory Hex therefore never blocks LOS, similar to the jagged edge of a cliff Hexside.

6. *6.1* RB *CELLARS:* Many accounts of the desperate fighting in Stalingrad talk of the extensive use of cellars for last-ditch defensive efforts—hence the decision to include this special dimension in the *RB* module. *RB* Cellar Locations are always considered Fortified (6.11) due to the fact that there is more limited access to the Location since most of it is underground, hence the higher TEM as well. Further, since most of the Location is below ground level (but limited firing ports exist, it is assumed) a squad firing its Inherent FP from such a Location into an non-ADJACENT Location is halved (6.4) due to smaller, and less numerous, apertures. A SW firing thusly is not halved, however, as it would usually be given the prime firing position. If agreeable to both players, they could use this as an Optional rule in some DYO games.

7. *6.7 ENCIRCLEMENT:* Infantry in a *RB* Cellar Location are immune to the effects of Encirclement due to the fortress-like nature of the cellar. When surrounded in such a position a side neither asked for nor was given any quarter; it was invariably a battle to the last man.

8. *7.1 CULVERT:* The Culvert represents an underground "gully" formed by a four- to five-feet wide concrete drainage system passing beneath street-level to connect to the normal gully. Since the Culvert is assumed to have a concrete floor as well, mines may not be set up hidden in the Culvert.

9. *9.1 STORAGE TANKS:* These represent large man-made structures for storing various industrial fluids and chemicals, such as petroleum and solvents. Evidence suggests that those featured on the *RB* map were drained (empty) at the time of the battle.

10. *10.1 MOL-PROJECTOR:* This little-known Soviet weapon, for which no official designation has come to light, was used in 1942-43 and then discarded. It looked somewhat like a PSK but, unlike the latter, did not fire a rocket. Moreover, not being recoilless, it was probably incapable of being shoulder-fired. The U.S. Army referred to it as a low-trajectory mortar for firing incendiary ampules at AFV, thus implying that it was a smooth-bore muzzle-loader with a glass, MOL-like projectile. (In this it was similar to the Northover Projector, a British Home Guard weapon of 1940 that fired a glass WP grenade.) Its issue was apparently not widespread, but in 1942-43 at least some rifle battalions contained one MOL-Projector platoon (probably 2-4 weapons). Photographic evidence indicates that it was used in Stalingrad.

11. *11.1 (CG) INTRODUCTION:* Each CG scenario is intended to simulate the most crucial actions taking place in the *Barrikady* on that day of the campaign, perhaps picking up at the point with the most potential for a breakthrough. Players should realize that the events occurring on the map (within the span of about 10-15 "Game Time" minutes; with two minutes approximating one complete Game Turn) in real life might have taken considerably longer, given the cautious, close-quarter nature of the Stalingrad fighting.

12. *11.2 DEFINITIONS; "Strategic Location":* It was decided early in the *RB* playtest that having to keep track of Control of *every* Location on the *RB* map was a wellnigh impossible task. Therefore, only Control of terrain with a TEM ≥ 2 (but including all Factory Locations and all map-edge/Shore hexes) is considered for Perimeter Determination purposes (though, granted, this in itself can still be a considerable chore).

13. *11.32 CG BALANCE PROVISIONS:* More than just a means to balance the CG, this rule simulates the fact that, historically, if a side were faring poorly in a battle as important as this was to both participants it would probably have a better chance of receiving a few extra, and perhaps stronger, reinforcements.

14. *11.4 SSR CG7:* A wreck in a terrain Blaze is not removed (as per D10.41) in the *RB* CG, since the burning terrain itself may be "removed". See also 11.6092.

15. *11.4 SSR CG9; RUSSIAN INFANTRY RG:* Most Russian Infantry reinforcements were ferried across to the west bank of the Volga at night, and even then

FOOTNOTES

suffered considerable casualties due to German interdiction. The ferry landing in the *Barrikady* factory district was roughly midway between the Red Barricades and Red October factories (about where hexes LL41-LL47 would be, were the map to include such). Reinforcements entering play along the east edge represent released Divisional or Regimental reserves.

16. *11.4 SSR CG9; GERMAN INFANTRY/AFV RG:* Historically, the Germans commenced the attack on the Barrikady from the north and northwest (i.e., from the direction of the Tractor Factory). However, German forces were never far off-map to the west in and around the *Barrikady Housing Estates*. From 23-25 October Infanterie Division 79 and Panzer Division 14 attacked from the west against both the *Barrikady* and *Krasnyi Oktyabr* factories.

17. *11.4 SSR CG11:* The Red Barricades Ordnance Factory provided the Soviets with an important strategic anchor for the defense of the city. The thick-walled, concrete-block construction of the factory's massive workhalls provided numerous ideal, easily-fortified locations from which to carry on the struggle. Russian infantry fought with well-documented grim fanaticism for virtually every square meter of the devastated factories.

18. *11.4 SSR CG12:* All commissars were recalled from front-line duty, by an order from Stalin himself, effective 1 November, 1942. The (8-0 or 8-1) leader substituted for such a removed Commissar represents a *fresh* Soviet leader, newly risen to fill the gap created by the recalling of the commissar.

19. *11.602g MARKER REMOVAL:* During the playtest it was decided that each still-hidden unit at scenario end should be placed on-map Concealed (in its respective setup Location). In this way, such a unit can not "magically" escape from an Isolated Area, and can be used for friendly-Perimeter determination, if necessary. As a house-rule, such a unit could be kept off-map unless in danger of Isolation or needed to help set their friendly Perimeter. However, if such a unit's Location is later determined to be Isolated, it must then immediately be placed on-map Concealed in that Location.

20. *11.604 ENCIRCLEMENT & MINEFIELDS:* The penalties suffered by a unit caught Encircled/in-a-minefield at CG scenario end are merely an abstract way to represent such unit's susceptibility to increased casualties while attempting to "break contact".

21. *11.6056 POCKETS:* Note that there must be a friendly AFV/MMC present to allow the formation of a Pocket, not just a friendly SMC/Control-marker.

22. *11.6059:* Isolated SMC are by definition within the friendly Perimeter Area; the only SMC Eliminated in this step are those completely outside the friendly Perimeter Area. This can occur since an SMC, by himself, is insufficient to allow the formation of a Pocket.

23. *11.6061 EFFECT ON UNITS:* An Isolated unit is not necessarily cut off completely from the main body of friendly forces. Often it is merely in a position that is difficult for the friendly "supply lines" to reach due to enemy interdiction.

24. *11.6066 DRAWING THE PERIMETER:* Once each side has carefully drawn out its respective Perimeter on the reduced-size *RB* mapsheet it is much easier to visualize any Isolated Area(s). For this reason alone we highly recommend that you do a new "Perimeter map" during this step for each CG scenario completed in order to clearly see each sides' "start line" and setup area(s) for the next CG scenario.

25. *11.6073 FORTIFICATIONS:* The other uses for Known Minefields given in F.7-.7B do not apply unless both players agree before the start of the CG.

26. *11.608 PRISONERS:* "Eliminated" here actually represents the prisoners' evacuation to a POW collection area.

27. *11.6095 FACTORY BUILDING:* A Factory building ablaze at CG scenario end is not reduced to stone rubble since most of its massive masonry walls remained upright after being consumed by the fire, as evidenced by the numerous photographs of such Stalingrad structures, clearly showing roofless, bombed-out buildings with only their walls left standing.

28. *11.6096 FLAME SPREAD:* Some amount of terrain fire is allowed to "carry over" to represent the ongoing nature of the battles by having some pre-existing fires to continue to burn during the next scenario. Such fires could have special significance if the next scenario were a night assault, for, according to Chuikov, Russian night attacks were frequently carried out in the illumination of burning buildings and rubble.

29. *11.6132 WEAPON REPAIR:* The relative "harshness" of this table on some repair attempts is simply a game mechanic to reduce SW accumulation noticed in the playtest of the CG, especially for the Germans (as they will normally capture several Russian SW, especially MMG/HMG). The Russians receive a −1 drm to some of their SW repair attempts not because of the reliability of such SW, but to help make good some of the losses incurred during the scenario due to "leaving behind" those "heavy" MMGs when routed.

30. *11.6134 FT/DC:* Special weapons such as flamethrowers and demolition charges, so easily expended in the course of an ASL scenario, would be replenished to the owning unit during a lull in the action.

31. *11.6142 AFV PLATOON WITHDRAWAL:* Most AFV platoons/companies, when attached to an infantry organization, were done so temporarily until their job was completed (or needed more urgently in another sector).

32. *11.615 FORTIFICATION REMOVAL:* This represents the work of sappers during a lull in the action, perhaps overnight, or even by the occupying units.

33. *11.6161 HISTORICAL DRM CHART:* Most of these DRM are an attempt to represent the actual historical influx of reinforcements (for instance, the arrival of the Soviet's 45th Rifle Division near the end of October and early November), or the periods when there were historical lulls in the campaign. These same DRM are used not only for CPP Replenishment and RG Strength determination but ELR Adjustment as well, as such an infusion of new "blood" (or the lack thereof) could have a profound effect on the troops' morale and willingness to carry on the fight.

34. *11.617 ELR LOSS/GAIN:* A player who continues to attack day after CG-Day will soon find his troops' ELR reduced to one or zero, and see them melt away before his very eyes. It is therefore imperative that a side "come up for air" every few days or so, as necessary, as their historical counterpart would have been forced to do.

35. *11.619 GERMAN REINFORCEMENT GROUP CHART; StuIG Pltn:* The experimental StuIG 33B was the third attempt to mount the 150mm sIG 33B Infantry Gun on a PzKpfw chassis. Unlike its two predecessors, this one featured a fully enclosed fighting compartment on a StuG IIIE hull. A company of twelve was sent to Stalingrad in time to support the *Operation Hubertus* offensive in November 1942. A second company of twelve (formed as Company 9, Panzer Regiment 201, Panzer Division 23) was member to the forces that tried to break the Soviet encirclement of "Festung Stalingrad" in December of that year. These twenty-four were the total number of StuIG 33B produced.

36. *11.619 REINFORCEMENT GROUP CHART; footnote [P]:* Both sides must use a north-south Hex Grain alignment for all Barrages since each side's artillery was either due east (Russian) or west (German) of the *Barrikady* factory.

37. *11.6205 LEADER DETERMINATION DRM:* This DRM is to reflect the fact that many of the best German leaders were sent into battle with the initial units.

38. *11.6243 AMMUNITION SHORTAGE REMOVAL:* This rule simulates the ability of an Isolated unit to be "resupplied" in the midst of battle. Friendly MGs are the only SW allowed to be re-munitioned in this manner since most squads usually had MG ammunition more readily available than, say, mortar or ATR rounds.

Red Barricades Factory Building Identification Key

(for the reduced-size *RB* map on the back of the Chapter O divider)

1. Martin-Electro Furnace
2. Gun Construction Hall (gun tube processing and drilling)
3. Gun Tube Thermal Processing and Deburring Hall
4. Assembly Hall (gun construction and completion on conveyor belts)
5. Foundry Hall (mechanical workstations for forming, casting and forging)
6. Manufacturing Hall (with miscellaneous workstations)
7. Assistant Power Plant and Oil Heating
8. Workshop or Warehouse
9. Stockyard
10. Shipping Docks and Hangars

RED BARRICADES CREDITS

DESIGN: Charles Kibler
HISTORICAL RESEARCH & DEVELOPMENT: Bob McNamara
SCENARIOS: Charles Kibler, Eric Baker, Michael A. Balis
COVER ART: George Parrish
GAME ART: Charles Kibler, David Dobyski
MVP: Frank Calcagno Playtest Group
PLAYTEST-GROUP COORDINATORS: Frank Calcagno, Sam Rockwell, Eugene Murrell, Jim Stahler, Alan Freedman, Bruce Degi, Mark Nixon, Michael A. Balis, Eric Weiss, Jeff Cebula, Eric Baker, Kurt Nordquest, Jim Collier, Keith Potter, Tobias Timm, Dan Murray (Thanks also to Pat Jonke, Perry Cocke, Chuck Goetz, Guy Chaney, Bob Bassin, Rex Martin and Paul Kaster)
TYPESETTING: Colonial Composition
PREP DEPT. COORDINATOR: Lou Velenovsky
PRINTING: Monarch Services

Special thanks to the *Bundesarchiv* and *Militararchiv* (West Germany) and the *National Archives Trust Fund* (Washington, D.C.) for historical maps and aerial photographs. Photograph on page O10 (showing the Red Barricades factory in the background) from *Mit Tanne und Eichenlaub*, war chronicle of the 100th Jaeger Division by Hans Neidhardt (Leopold Stocker Verlag, 1981).

Red Barricades CG Roster (11.6173-.619)

CG: **SIDE:** **PLAYER(S):** **VICTOR:**

CG I	CG II	CG III	CG Day	Hist DRM	CPP Start	CPP Repl.	CPP Total	ELR	Weath.	EC	RG Purchased: RG ID (CPP cost)	SAN	CPP Spent	CPP Left	Recon #Loc.	Init.	Moon Phase	Stone Loc.	WIN
			17/10						Clear	Mod.							Half		
			18/10														Half		
			19/10														Half		
			20/10														Half		
			21/10														Full		
			22/10														Full		
			23/10														Full		
			24/10														Full		
			25/10														Full		
			26/10														Half		
			27/10														Half		
			28/10														Half		
			29/10														Half		
			30/10														Half		
			31/10														Half		
			1/11														Half		
			2/11														Half		
			3/11														Half		
			4/11														Half		
			5/11														None		
			6/11														None		
			7/11														None		
			8/11														None		
			9/11														None		
			10/11														Half		
			11/11														Half		
			12/11														Half		
			13/11														Half		
			14/11														Half		
			15/11														Half		

FORTIFICATIONS (11.621)

Fortified Building Locations			Mines						Misc. Fortifications		HIP Locations					
			Hex	Str.-Type	Hex	Str.-Type	Hex	Str.-Type	Type	Hex	Unit(s)	Hex	CA	Unit(s)	Hex	CA

Red Barricades RG Purchase Record (11.6197)

Fill out one line for each RG purchased

CG: **Side:** **Sheet:**

CG Day	RG ID	Group Type	#P	#R	Str.	#Units	SW/Gun Received								Leader(s) Received			Other	On-Bd.
							.50c MOL-P	HMG	MMG	LMG	ATR	MTR	FT	DC					

RED BARRICADES Campaign Game Force Organizer

Casualties
(11.12)

Entering RGs
(11.6194; SSR CG9)

1

2

3

4

5

6

Fortification Counters
(11.621)

Retained
(11.607; 11.6134; SSR CG13)

On-Map Setup RGs
(11.6194a)

1

2

3

4

5

Dug-In AFV RG
(11.6194c)

Reserve RGs
(11.6194b)

1

2

3

4

5

6

Wounded Leaders
(11.610)

Heroic SMC
(11.6112-.6113)

Malfunctioned Weapons
(11.6132)

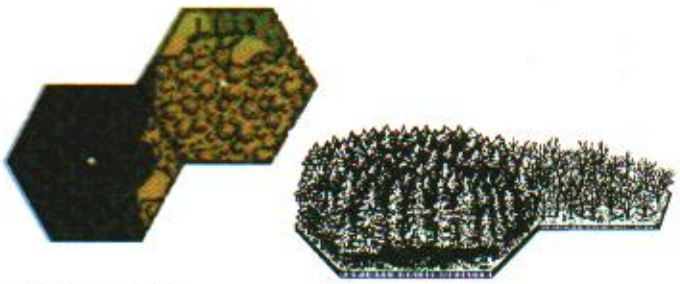
Captured Weapons
(11.6135)

The Avalon Hill Game Company grants permission to photocopy this sheet for personal use.

P. KAMPFGRUPPE PEIPER

ORDER OF PRESENTATION:

1. Pine Woods
2. Slope Hexsides
3. Barbed-Wire Fences
4. Stream-Hex Terrain
5. Village Terrain
6. Hillside Walls & Hedges
7. Known Minefields
8. *KGP* Campaign Games

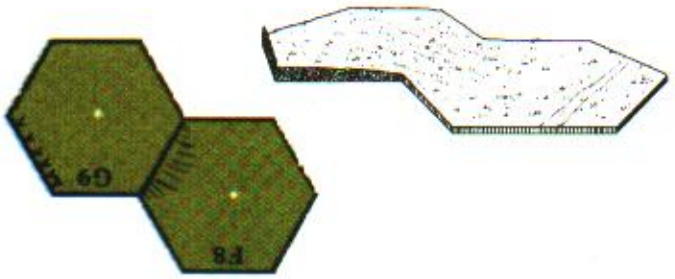


1. PINE WOODS

1.1 *KGP* includes a new type of terrain representing extensive stands of pine (evergreen) woods.[1] On the *KGP* maps, the standard "woods-green" background color in a woods hex indicates a *pine*-woods hex (EX: StKK13) while a normal (B13) woods hex (EX: StLL12) has a thin black outline and no standard background color. A pine-woods hex is treated exactly like a normal woods hex except as stated otherwise.

1.2 *OBSTACLE HEIGHT:* Pine woods are a two-level LOS Obstacle.

1.3 *MF COST:* Infantry enter pine woods at a cost of 1½ MF (3 MF for Cavalry).

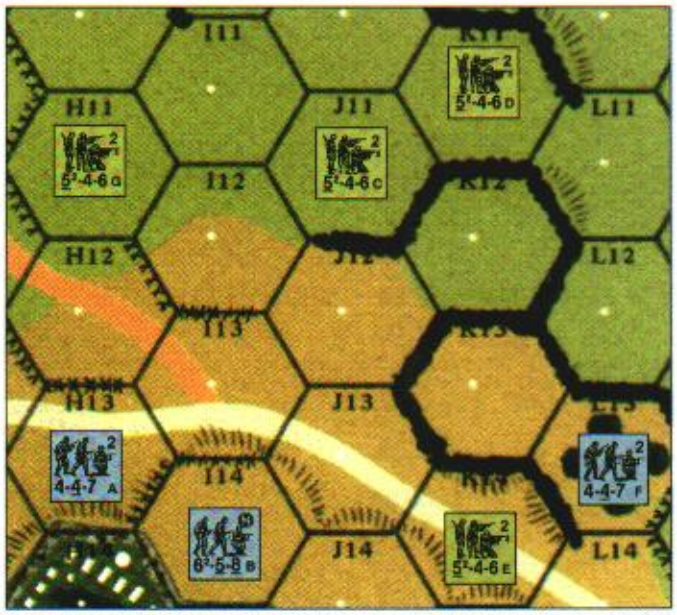


2. SLOPE HEXSIDES

2.1 A slope hexside[2] represents an undulation in the terrain substantial enough to give an Up-Slope (2.2) unit a LOS advantage. On the *KGP* maps a slope hexside is represented by brown hash-marks along that hexside (EX: StG9-F8). The entire hexside (inclusive of vertices) marked by a slope, but *not* the slope artwork itself, is considered part of that slope hexside.

2.2 *UP-SLOPE/DOWN-SLOPE:* A Location whose hex contains ≥ one slope hexside is either Up-Slope or Down-Slope to LOS drawn across that hexside to or from that hex. If the slope lines are *in* the Location's hex, the Location is defined as being Down-Slope across that hexside; if the lines are in an adjacent hex along the hexside common to both hexes, the Location is Up-Slope across that hexside. A Location can be both Up- and Down-Slope across two different slope hexsides.

2.3 *LOS:* Slopes are neither obstacles nor Hindrances. Being Up-Slope affects LOS *only* in that an Up-Slope Location is treated as being ¾ of a level higher than normal to LOS that *begins or ends* in that Location *and crosses* an Up-Slope hexside of that Location.[3] Thus, barring other obstructions to LOS, an Up-Slope unit—even if not in a hill Crest-Line hex—can trace a LOS across an Up-Slope hexside of its hex to a lower elevation (i.e., across a hill Crest Line) and/or over (B.4) obstacles and Hindrances whose topmost obstacle/Hindrance height is < the Up-Slope elevation of the viewing unit [EXC: entrenched LOS restrictions would still apply as per B9.21, as would wall/hedge TEM as per B9.3 (see also 6.2-.3)]. Otherwise, being Up-Slope or Down-Slope *itself* has no effect on LOS (e.g., slopes are ignored if the LOS goes *through* their hex or *along* their hexside, and also when calculating an A6.41-.43 increase or decrease in the number of Blind Hexes caused by an intervening obstacle). Being Up-Slope *itself* can neither grant HA nor allow an Up-Slope unit to make a HD attempt. The presence of ≥ one slope hexside does *not* change the elevation of that hex's Base Level.



EX: Squad A's LOS to squads B, E and F (and to hex J13) is unaffected by slopes. Squad A (which is at Level 3) has no LOS to Level 2 squads G, C or D. Squad B has a LOS to all squads depicted. Squad B could claim Height Advantage only if fired on by squad G or squad(s) C/D. Squad E can see squads A, B and F. Squad F has a LOS to squads A, B, D and E; however, it could see squads C and G (and hex I12) as well *if* it were Up-Slope from them along hexside K13-L13. In all cases, LOS reciprocity (A6.5) applies. See also the 6.2 example.

If hexes J11-K12 contained a two-hex Two Story House (B23.22), K11 would be a Blind Hex to squad B but L10 would not be (since the building's topmost height would be Level 3½ whereas squad B is at Level 3¼ due to its being Up-Slope along that LOS).

An AFV/wreck in J13 would Hinder squad A's—but not squad B's—LOS to squad E (and vice versa), but would not Hinder squad A's/B's LOS to squad F (or vice versa). An AFV/wreck in H12/I13, and/or a wall/hedge/slope along hexside(s) H11-H12/H12-I13, would not Hinder squad B's LOS to/past squad G.

FIRE LANE A1

2.31 *FIRE LANE:* For the purposes of Fire Lane LOS/LOF drawn across ≥ one slope hexside, assume that the term "same-level" means "same-Base-Level". See also 2.42 and its example.

2.4 *COVER:* A slope can, in certain instances, provide a +TEM (2.41) or a +DRM (2.42).

2.41 *DIRECT-FIRE TEM:* Ground-level Infantry in a hex containing ≥ three (or two non-contiguous) Down-Slope hexsides may claim a +1 slope TEM vs Direct Fire [EXC: FT], provided the attack originates from a non-adjacent firer whose elevation advantage (if any) over that of the target is < the range of the attack *and* the attacker's LOS crosses ≥ one of the target hex's Down-Slope hexsides. (A.5 applies to a FG attack.) Slope TEM is cumulative with no other +TEM [EXC: Mud/Deep-Snow TEM]). Being Up-Slope *itself* provides no TEM, does not negate the FFMO/FFNAM DRM, and does not affect Wall Advantage rules.

EX: See the 2.3 illustration, and assume that the following attacks are Small Arms. Squad E can claim slope TEM if fired on by squad B (or from hex J12 or H14), but not if fired on by squad A (whose LOS does not cross a Down-Slope hexside of K14) or from H12, I12, etc. Squad F can fire on adjacent squad E with no slope TEM, regardless of which unit has Wall Advantage. If squad E is fired on by squad A or F, the –1 for FFMO can be claimed if otherwise applicable. If squad E is fired on by squads A and B (even in conjunction with [an]other firer[s] in J13/J14/K13) as a FG, squad E can claim slope TEM (A.5).

FIRE LANE A1

2.42 *FIRE-LANE DRM:* Infantry being attacked by a Fire Lane receives a +1 Fire Lane slope DRM if the firer is Up-Slope from, ¾ of a level higher than, and not adjacent to, that target [EXC: if the Infantry is attacked by a Fire Lane *Snap Shot* (A9.221), the DRM applies only if these three conditions apply to *each* of the two hexes that form the Snap Shot hexside, as determined by the firer's separate LOS to each of them]. An Up-Slope attacker's Fire Lane cannot affect a target that lies at a different Base Level (see 2.3) from that of the attacker.

EX: See the 2.3 illustration, and assume that squads A and B each have a MG. If squad A places a Fire Lane counter in hex L13 (or beyond L13 along that same LOF), all moving Infantry in I13, J13, K13 (or I14, J13, K14; A9.221) and L13 can be attacked by that Fire Lane with no slope DRM (since squad A is not Up-Slope from any of those Locations). If squad B places a Fire Lane counter in K14, all moving Infantry in J13 (or J14) can be attacked by that Fire Lane with no slope DRM (since those hexes are adjacent to the firer), but moving Infantry in K14 could claim both the slope TEM (2.41) and slope DRM. If that Fire Lane counter were instead placed beyond K14 along that same LOF (e.g., in M14), moving Infantry in J13 (or J14) and K14 would be affected no differently while moving Infantry in L13 (or L14) would be attacked with no slope DRM (note that I14 is *not* Up-Slope from L13 and L14 along squad B's individual LOS to each of those two hexes), nor (for the same reason) would the slope DRM apply to Infantry attacked by a Fire Lane Snap Shot at hexside L13-L14. If squad B places a Fire Lane counter in I12 (or beyond I12 along that same LOF), moving Infantry in I12 and I13 could be attacked by that Fire Lane, but those in I12 would receive the slope DRM.

2.5 *ENTRY:* A unit crossing a slope hexside that it is Down-Slope from is moving Up-Slope. A unit crossing a slope hexside that it is Up-Slope from is moving Down-Slope.

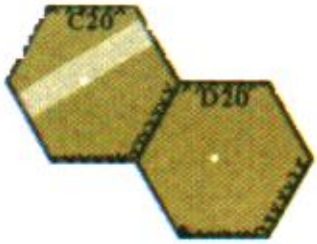
2.51 *MF COST/BONUS:* Infantry/Cavalry (or a Wagon) must expend ½ MF + COT in order to move Up-Slope. Infantry on skis would receive a ½-MF bonus for each Down-Slope hexside they cross (cumulative with any bonus received for moving to a lower elevation). Crossing a slope hexside while moving on a road does not negate the B3.4 MF road bonus.

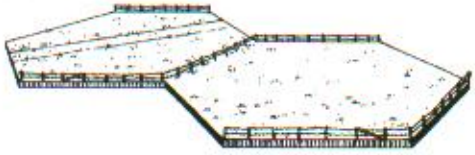
EX: See the 2.3 illustration. Squad A must expend 2½ MF to enter hex I14 (1 [COT] + 1 [crossing a barbed-wire-fence hexside; 3.2] + ½ [moving Up-Slope] = 2½); if it were also crossing a Crest Line to Level 4, the cost would be 3½ MF ((1 [COT] × 2 [ascending across a Crest Line]) + 1 [crossing a barbed-wire-fence hexside; 3.2] + ½ [moving Up-Slope] = 3½). Squad A would expend 2½ MF to enter graveyard hex H14. Squad B would expend one MF to enter J13, since there is no additional cost to move Down-Slope.

2.52 *MP COST:* A unit that expends MP must pay one MP + COT in order to move Up-Slope.

2.53 *CREST-LINE SLOPE:* No vehicle (or charging cavalry) may cross a combination Crest-Line-slope hexside (EX: StJ6-K6; ChX3-Y4).[4]

2.54 *RAIN/SNOW:* When crossing a slope hexside, E3.54 (or E3.723), if otherwise in effect, applies just as if the moving unit *is* changing elevation (in addition to any application of that rule due to crossing a Crest Line).





3. BARBED-WIRE FENCES

3.1 A barbed-wire fence is depicted by a series of small black Xs overlaying a hexside (EX: StC20-D20; ChB3-B4). Barbed wire is neither an obstacle nor a Hindrance, provides no TEM, does not negate the FFMO/FFNAM DRM, and cannot be Cleared or eliminated in any way.[3]

3.2 *MF COST:* Infantry must pay one MF + COT to cross a barbed-wire-fence hexside, unless using Armored Assault or moving within a trench or tunnel (in which case only the COT applies). The cost for Cavalry is two MF + COT. No Wagon, ridden bicycle, Infantry on skis, or currently-CX Infantry/Cavalry/horse may cross a barbed-wire-fence hexside. All barbed-wire-fence hexside MF costs are doubled at night. A Straying unit required, but unable, to cross a barbed-wire-fence hexside becomes TI instead.

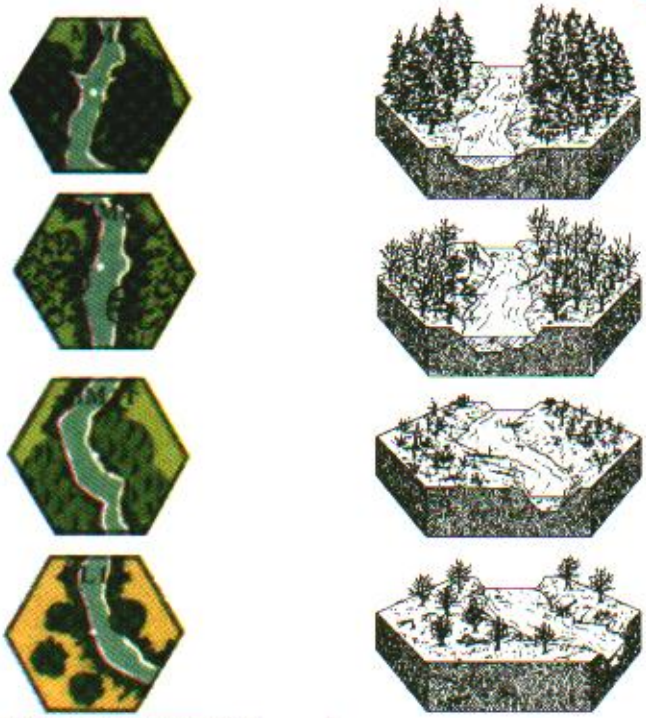


3.21 *TEMPORARY BREACH:* A non-Straying, Good Order Infantry MMC neither beneath an Entrenchment/Pillbox nor above a Wire counter may create a temporary breach in one barbed-wire-fence hexside of its hex by expending two MF in its MPh while at ground level in (but not IN) that hex. Place the top edge of the MMC counter over the selected barbed-wire-fence hexside and mark the unit TI. For as long as that MMC remains TI, unpinned and in Good Order, it is considered to be using Hazardous Movement but that hexside's barbed-wire cost for Infantry [EXC: if broken, berserk, Manhandling, or part of a Human Wave] becomes ½ MF. (A vehicle crossing that hexside would still be subject to Bog as per 3.3, but would not affect that hexside's temporarily-breached status.) Creating a temporary breach in barbed wire is a concealment-loss activity (A12.141).

3.3 *MP COST & BOG:* Barbed wire has no effect on MP costs; however, no motorcycle may cross a barbed-wire-fence hexside. Each vehicle that enters a new hex by crossing a barbed-wire-fence hexside must undergo a Bog DR, in addition to any other Bog Check required for entry of the Location. If it Bogs, it is left in the hex it was attempting to enter. (If it Bogs twice, due to both crossing a barbed-wire-fence hexside *and* other terrain in the hex, mark it with a Mired—not a Bog—counter.) The only DRM that can apply to a barbed-wire Bog Check are:

+1 Vehicle is not fully-tracked;
+2 Vehicle has Truck-type MP expenditure.

3.4 *BYPASS:* The barbed-wire-fence *artwork* (i.e., the small black Xs) along such a hexside has no effect on a unit's normal ability (if any) to Bypass along that hexside.



4. STREAM-HEX TERRAIN

4.1 *STREAM- WOODS/BRUSH/ORCHARD:* The *KGP* maps feature stream-woods (both pine [EX: StMM5] and normal [EX: StMM6]), stream-brush (EX: StMM11), and stream-orchard (EX: StLL14) hexes. Each such supplemental terrain type always rises (to its normal height) from the Crest level of—not from IN—the stream hex. See also B19.5-.52.

4.11 *ENTRY:* A unit enters a stream- woods/brush/orchard hex across a stream hexside at the normal (for its depth; B20.4-.44)) stream cost. If entering across a non-stream hexside, movement costs are *cumulative* (e.g., five MF to enter a shallow-stream woods/brush hex—three for the shallow stream [B20.43] plus two for the woods or brush [EXC: 4½ MF if a shallow-stream *pine*-woods hex]—or four MF to enter a shallow stream-orchard hex).



4.12 *CREST:* All rules for Crest status (B20.9) apply in a stream-woods/brush/orchard hex. [EXC: Good Order Infantry may gain Crest status in such an Accessible hex, along the non-stream hexside they cross, at a cost of three MF for a stream- brush/woods hex (2½ MF if *pine* woods) or two MF for a stream-orchard hex. Otherwise, B20.91 applies unchanged.]

4.13 *TEM:* Disregarding SMOKE and Hindrances, a unit IN a stream- woods/-brush/orchard hex is in Open Ground if the LOS INTO that hex emanates from within, or lies within the stream depiction (B20.2) as it enters, that hex. Otherwise, a unit in/IN such a hex is not in Open Ground and can claim the hex's woods, brush or orchard (or entrenchment, if applicable as per B20.91-.92) TEM [EXC: Air Burst TEM can also apply to a unit(s) IN a stream-woods hex].





4.2 *STREAM CULVERT:* A Stream Culvert[5] (EX: hex ChLL7; LgL5) represents a man-made, subterranean passage for a stream. It is a separate Location that is indicated by thick black dashed lines showing its outline underground. A unit IN a Stream Culvert is placed beneath a Culvert counter, is considered to be in Open Ground, and has a LOS only to ADJACENT stream (and Stream Culvert) Locations. The normal Stacking limit (A5.1) IN a Stream Culvert is *one* squad-equivalent. Normal rules pertaining to subterranean units/Locations apply unchanged (e.g., E1.923).

4.21 *SETUP & ENTRY:* No unit/Equipment/Fortification may be set up IN a Stream Culvert. Infantry enter a Stream Culvert as if entering INTO another hex of that stream, but such entry is allowed only from IN an ADJACENT stream (or Stream Culvert) Location [EXC: entry is NA if the stream is flooded]. No 5/8" vehicle/Gun counter may enter a Stream Culvert.

4.22 *CREST:* Crest status cannot be gained in a Stream Culvert hex, nor can it be gained along a stream-and-Stream-Culvert hexside (e.g., hexside ChLL6-LL7).

4.23 *FRIGID:* Each Infantry unit IN a Stream Culvert at the end of a Player Turn is subject to Replacement/Disruption at that time, just as if it were IN a frigid Water Obstacle (B20.7).

4.24 *ATTACKS vs:* No type of attack (or Bombardment) can affect a Stream Culvert itself. Nothing IN a Stream Culvert can be affected by Indirect Fire or Aerial attack. A unit IN a Stream Culvert is an ineligible (A14.22) Sniper target.





4.3 *FORD:* Printed fords exist on the *KGP* maps (EX: StMM10). All rules applicable to fords represented by counters (B20.8) apply unchanged.

5. VILLAGE TERRAIN



5.1 *NARROW STREET:* A Narrow Street[7] is represented on the *KGP* maps by a road depiction overprinting ≥ one hexside (EX: hexside StN17-O17). A Narrow Street can be paved or unpaved.



5.11 *MOVEMENT:* A Narrow Street is always one-lane (i.e., the restrictions of B6.43-.431 apply as if that "road"[8] were a one-lane bridge). A unit Bypassing along a Narrow Street hexside is always assumed to be on the road within its hex—and, if that hexside is also a Crest Line hexside, in the *lower* of those two hexes. VBM along a Narrow Street is allowed regardless of hexside-to-obstacle clearance (D2.3), and costs *half* the normal Bypass MP expenditure [EXC: VCA change (D2.33) remains one MP (MF for a Wagon)]. Infantry/Cavalry Bypassing along a Narrow Street pay normal Bypass MF costs, but can still (as could a Wagon) qualify for the MF road bonus (B3.4). Contrary to the B3.4 example, a unit moving along/across a Narrow Street hexside cannot enter an obstacle at the road MF rate. Dashing (A4.63) across/along, as well as routing along, a Narrow Street is NA.[9] SMOKE in *either/both* of the two ground-level Locations common to a Narrow Street hexside adds an extra MF/MP to the cost of using Bypass along that hexside [EXC: if the hexside is also a Crest Line hexside, only SMOKE in the *lower* hex can do so].

EX: See the 5.141 illustration. If squad G Bypasses along Narrow Street hexside O18-N18, it must still expend two MF to enter building O19 even though part of that Narrow Street extends into O19. The same would be true if squad G moved from N17 into the O17 building.

5.12 *MOVEMENT RESTRICTIONS:* The following movement-related restrictions apply on a Narrow Street (see also 5.141):



5.121 *TCA:* A turreted vehicle with a MA Caliber Size of ≥ 50mm *and* a Barrel Length of other than "*" may be Non-Stopped on a Narrow Street only if its TCA coincides with its VCA or "rear" VCA.

5.122 *TCA CHANGE:* A vehicle with a MA Caliber Size of ≥ 50mm attempting to change its TCA relative to its VCA while on a Narrow Street (or Single-Lane Road; SSR KGP7) must first make a Final TCA-Change dr of ≤ 3. (See also 5.121.) A maximum of two such dr per vehicle may be made per phase. In its MPh, each failed TCA-change attempt costs the vehicle two MP. Only the following cumulative drm can apply:

+2 "LL" Barrel Length	+x Armor Leader modifier
+1 "L" Barrel Length	−1 "*" Barrel Length
+1 If BU	

5.123 *VCA CHANGE:* A motorcycle may expend 1/4, while a very small (D1.75) Target Size vehicle may expend 1/2, of its printed MP allotment to change its VCA 180° while on a Narrow Street. No other vehicle type may change its VCA [EXC: as per D2.33], nor may any vehicle change its VCA as part of a Motion attempt (D2.401), while on a Narrow Street.

5.124 *TOWING:* A vehicle towing a Gun or trailer *may* use VBM along a Narrow Street unless otherwise prohibited. However, such a Gun cannot be unhooked while in Bypass during play. A trailer may be unhooked while in Bypass during play (and is eliminated for all purposes thereafter), but only by the crew of the vehicle towing it.

5.125 *(UN)LOADING:* PRC may (un)load (and their possessed 76-107mm MTR [C10.1] may be "[un]hooked") from/onto a vehicle on a Narrow Street into/from either/both of the ground-level Locations forming that hexside.

5.126 *RUBBLE/BLAZE/WRECK:* All Bypass along a Narrow Street hexside is NA if either/both of the *hexes* forming that hexside contain(s) another vehicle/wreck in Bypass along that hexside, a Blaze counter [EXC: burning wreck along *another* hexside], and/or a Rubble counter. No wreck (or Immobile vehicle) on a Narrow Street may be removed as per D10.4.

5.13 *ATTACK EFFECTS:* The following special cases apply to attacks by/vs a firer/target in Bypass on a Narrow Street (see also 5.141-.142):

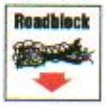


5.131 *SMOKE/RESIDUAL-FP:* SMOKE/Residual-FP in *either* of the two ground-level Locations common to a Narrow Street hexside can affect a unit in Bypass along that hexside. However, if *each* such Location contains SMOKE/Residual-FP of a different strength from that in the other Location, only the *higher* amount applies. [EXC to both: If that hexside is also a Crest Line hexside, the SMOKE/Residual-FP in the lower-Base-Level hex applies.]

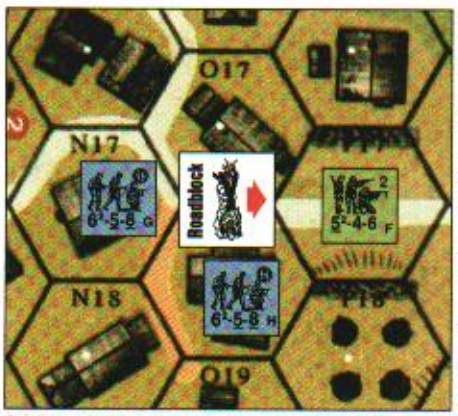


5.132 *CC:* A vehicle on a Narrow Street is subject to Street Fighting (A11.8) when attacked in CC (including CC Reaction Fire) if its attacker occupies the ground level of a building in one of the two hexes common to that Narrow Street hexside. A +1 DRM applies to all CC CMG attacks by a vehicle currently in CC/Melee on a Narrow Street.

5.14 *FORTIFICATIONS:* Fortifications not normally allowed in a paved road hex may be placed in a hex with ≥ one paved Narrow Street hexside unless prohibited by other terrain in the hex.



5.141 *ROADBLOCK:* A roadblock may be placed "across" a Narrow Street by setting up the counter so that it straddles, with its arrow pointing to a *vertex* of, that hexside. For LOS and movement purposes, the roadblock is considered to extend from center dot to center dot of the two hexes formed by that hexside. A Narrow Street roadblock cannot convey Wall Advantage, provides *no* TEM vs Indirect Fire or Residual FP, and prohibits VBM *along* the straddled hexside. As a non-Bypassing unit *crosses* a hexside that is straddled by a Narrow Street roadblock, it must declare a vertex of that hexside in order to establish, vs any ensuing Snap Shot, which "side" of the roadblock it is on (thus determining whether it will be able to claim the roadblock's protective benefits vs that attack).



EX: A roadblock has been placed in hexes StO17-O18, with its arrow pointing toward the O17-O18-P17 vertex. Since the roadblock is considered to extend from the center dot of O17 to the center dot of O18, squads F and G have *no* LOS to each other (B9.2), and squad H can claim neither roadblock TEM nor Wall Advantage if fired on by squad F. Squad G must also expend one MF to cross the roadblock if it Bypasses directly to vertex O17-O18-P17 (the two MF being expended simultaneously).

Squad H may enter O17 (whether entering or Bypassing the building) without the roadblock affecting its entry cost. If it directly enters building O17, its owner must declare if it crossed the hexside on the vertex O17-O18-P17 or O17-O18-N17 side of the roadblock; if he chooses the latter, an ensuing Snap Shot conducted by squad F (or by any other unit—including one in Bypass at vertex O17-O18-P17—whose LOS to vertex O17-O18-N17 first crosses the roadblock) will be subject to the roadblock's TEM. If squad H instead enters O17 by Bypassing along Narrow Street hexside O17-N17, each ensuing attack vs it [EXC: Indirect Fire] at vertex O17-O18-N17 by any unit whose LOS to that vertex first crosses the roadblock will likewise be subject to roadblock TEM.

5.1411 *REMOVAL:* Clearance attempts vs a Narrow Street roadblock can be made only from any of the four ground-level Locations that touch the straddled hexside. A unit wishing to use a DC to eliminate a Narrow Street roadblock must occupy one of the three hexes that form a vertex of the straddled hexside, and must declare the attempt to eliminate it. The DC is then Placed/Thrown/Set vs that *vertex*, and can affect nothing but the roadblock when it detonates. Direct Fire ordnance can eliminate a Narrow Street roadblock only if the firer has a LOS to the entire straddled hexside and declares the roadblock as its sole target prior to firing; the attack can affect nothing but the roadblock. Indirect Fire HE eliminates a Narrow Street roadblock with the proper result vs *either* of the two ground-level Locations that form the straddled hexside. B29.5 applies otherwise unchanged.





5.142 *MINES:* All mines set up in a hex that contains ≥ one *paved* Narrow Street hexside must be placed on-map revealed (i.e., with the type and strength of that minefield displayed) unless all the Narrow Street hexsides of that hex are also Crest Line hexsides formed by lower-Base-Level hexes. The removal of such revealed mines as per B28.53 is NA. Mines in *either* of the two hexes common to a Narrow Street hexside (or in both such hexes, if one contains A-P mines and the other A-T mines) can possibly affect a unit using Bypass along that hexside; however, if *each* such hex contains mines of the same type but of a different strength from that in the other Location, only the *higher* strength can be used to attack the Bypassing unit. [EXC to both: If that hexside is also a Crest Line hexside, only the mines in the lower-Base-Level hex are used.]

EX: See the 5.141 illustration, and assume that N17, O18 and N18 contain A-P minefields of six, eight and twelve factors respectively. The minefields in N17 and O18 have to have been set up revealed. Any unit Bypassing along the N17-O17 Narrow Street hexside, regardless of which hex that unit occupies, will be attacked by the six-FP N17 minefield. A unit Bypassing along the N17-O18 Narrow Street hexside would undergo the eight-FP attack of the O18 minefield. Note that mines set up in N18 could use HIP since its sole Narrow Street hexside is unpaved.





5.15 *RUBBLE:* Placing a Rubble counter in a *hex* that contains a Narrow Street hexside eliminates any roadblock across that hexside, affects all units/*Equipment (see 8.2 definition)* currently in Bypass (in either/both hexes) along that hexside as if they were hit by falling rubble (i.e., as per B24.121), and eliminates all mines along that hexside (in both hexes).





5.2 *STEEPLE:* A building hex with a black center dot in a white cross (EX: StJ19) denotes a church with a Steeple Location in that hex—i.e., an additional building Location, with an inherent stairwell leading to it from ground level, above what would otherwise be the highest building Location of that hex. Except as stated otherwise, a Steeple Location is treated as a normal building Location [EXC: it cannot be Fortified, has no Rooftop Location, and the +1 drm for stone rubble determination (B24.11) is NA]. Each building Location in the hex beneath the Steeple Location is a normal building Location in all respects.

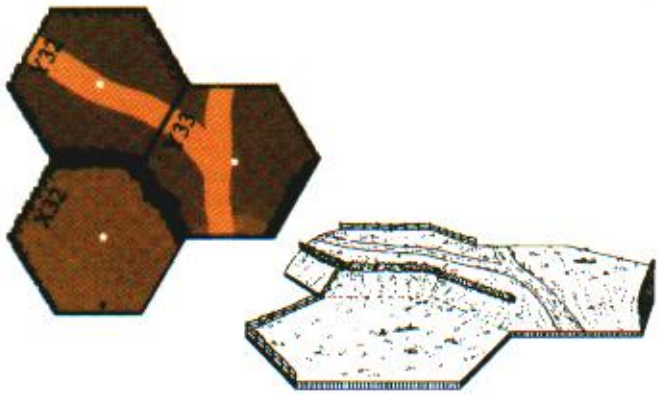
EX: Building StJ19 contains normal ground- and 1st-level building Locations, but *hex* StJ19 also contains a 2nd-level Steeple Location. Hex ChAA10 has a 1st-level Steeple Location with an inherent stairwell leading to it from the otherwise-normal ground-level building Location.

5.21 *STACKING:* A Steeple Location has a normal stacking limit (A5.1) of one HS-equivalent. No Gun may be set up in a Steeple Location.





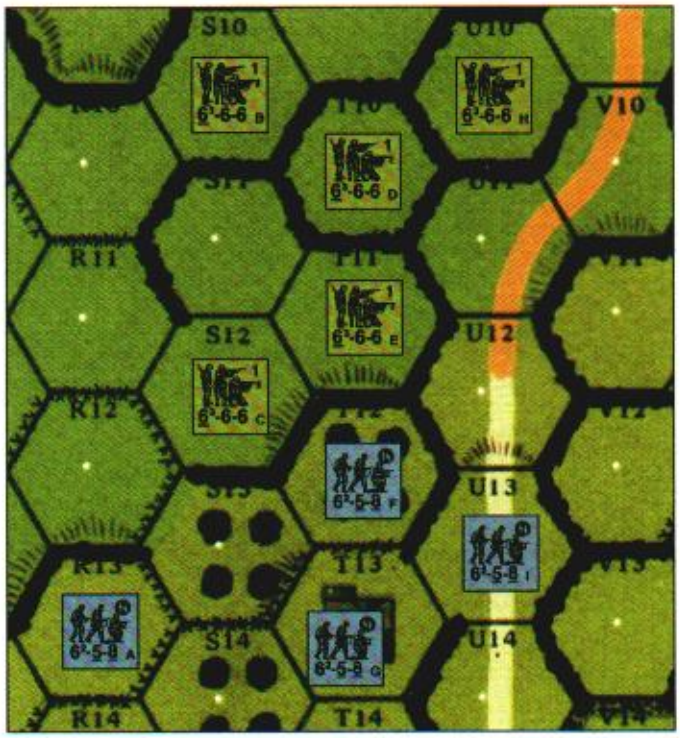
5.3 *SINGLE-HEX TWO-STORY HOUSE:* A building with a *large* white center dot (EX: LgI20) is a 1½-level LOS obstacle with both a ground- and first-level Location and an inherent stairwell. Like a Single Story House (B23.21), it has no Rooftop Location. In all other respects it is a normal building.



6. HILLSIDE WALLS & HEDGES

6.1 A Hillside wall/hedge[10] is one which lies along a hexside that is common to two adjacent hexes with different Base Levels, with none of the lower Base-Level's terrain appearing between the wall/hedge depiction and the higher Base-Level's terrain depiction. Examples of Hillside hedges are StX32-Y32 and ChK2-K3; an example of a Hillside wall is StS17-T16. All normal wall/hedge rules apply to Hillside wall/hedges except as modified herein.

6.2 *LOS:* A Hillside wall/hedge (including both its depiction and its associated hexside; B9.1) is ignored when determining whether or not a LOS exists between units whose elevations differ by ≥ one full level [EXC: a unit entrenched behind a Hillside wall/hedge still has its LOS restricted as per B9.21]. It is likewise ignored when determining the number of Blind Hexes created by a Crest Line. If a hill Crest Line ends at a Hillside wall/hedge, *the line along which the hill depiction meets the wall/hedge depiction* is considered to be the actual Crest Line.



EX: The following serve to further illustrate various LOS possibilities with Hillside hedges/walls and slopes:

Squad A (whose Base-Level elevation is Level 2) has a LOS to squads B, C, D, F, G and I. If squad A were entrenched, it would have a LOS to all squads *except* B, C, D, E and H.

Squad B (at Level 1) has a LOS to all squads *except* G (since G is not Up-Slope across hexside T12-T13).

Squad C has a LOS to all squads *except* H and I.

Squad D has a LOS to all squads *except* G.

Squad E has a LOS to all squads *except* A and G.

Squad F has a LOS to all squads. If entrenched, it would have a LOS to all squads *except* B, D and H.

Squad G has a LOS to squads A, C, F and I.

Squad H has a LOS to squads B, D, E, F and I.

Squad I has a LOS to all squads *except* C (since squad I is not Up-Slope across hexside T12-U13).

6.3 *ELEVATION, TEM & WALL ADVANTAGE:* A Hillside wall/hedge is always at the *higher* of the two Base Levels it lies between, and is treated as a normal wall/hedge when calculating the TEM of targets at ≥ the wall/hedge's base elevation. However, a unit at any level *lower* than that on which a Hillside wall/hedge sits never receives *any* benefit (including Wall Advantage; B9.32) from that wall/hedge hexside. A unit in Crest status may claim Wall Advantage over a Hillside wall/hedge that forms a hexside of that unit's hex only if both are at the same elevation and on the same side of the Depression. Otherwise, a unit's inability to claim Wall Advantage over a Hillside wall/hedge hexside does not prevent it from claiming Wall Advantage over another wall/hedge hexside, provided the unit meets all the other B9 criteria for doing so.

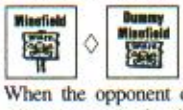
EX: See the 6.2 illustration. Only squad F can claim Wall Advantage across hillside hedges T12-S12/-T12-T11. Furthermore, squads C and E can never receive any benefit from the hillside hedges along hexsides(s) of their hexes, as the units are both *lower* than those hedges.

7. KNOWN MINEFIELDS



7.1 Special minefield counters have been included in *KGP*. These are termed Known Minefield[n] counters, and are treated as normal mines except as specified otherwise. Known Minefield counters have the normal depiction on the front but list no attack strength; the reverse side is the same but with the strength shown. When Known minefields are called for in any scenario (or RePh; 8.6073), the owner places the desired number of these counters onboard (with the strength-side *down*). Once the strength of such a counter has been revealed, it is flipped over. Known Minefield counters may represent minefields previously discovered by reconnaissance or in a previous engagement; therefore, Known minefields are set up onboard even in night scenarios. If a Known Minefield counter has its strength reduced or eliminated by OBA/bomb attack (B28.62), that counter is replaced by one having the appropriate new strength (or by a Dummy Minefield counter [7.2] if its strength was eliminated); if its strength was unrevealed at the time, its new strength remains unrevealed.

EX: A player whose OB contains 24 Known minefield factors may set up two Known Minefield counters with 12 factors each, or three with 8 factors each, or four with 6 factors each, or two with 6 factors each plus one with 12 factors, etc.



7.2 *DUMMY MINEFIELDS:* Some Known Minefield counters have "Dummy" printed on their reverse side in lieu of a FP factor, thus representing Dummy minefields. When the opponent discovers that it is a Dummy (which must be announced when *any* ground unit enters, or successfully Searches [A12.152], its Location), simply remove it from play. A Dummy minefield is unaffected by a K/KIA resulting from a bomb/OBA attack (B28.62). The number that may appear beneath a Dummy Minefield counter depiction in a printed scenario OB represents the number of Dummy *counters* allotted. In a scenario that does not allot Dummy minefields (which includes all CG scenarios), a player may add (at no extra FPP cost) one Dummy Minefield counter to his OB for every 24 *Known* minefield factors he sets up. In addition, in *any* scenario in which a player has received ≥ one Dummy Minefield counter, he may make a Secret dr (halved; FRD) and receives an additional number of Dummy mine counters equal to the result.

7.3 *HIDDEN MINES:* Known Minefield counters may also be used to mark hexes containing hidden mines whose presence (but not strength) is discovered either by Searching (A12.152) or by a unit's being subjected to a mine attack DR therein. In addition, any "normal" Minefield counter (i.e., one of the types covered in Section B28) is considered to indicate the presence of Known mines when placed onboard. Normal mines may not be otherwise exchanged for or converted to Known mines [EXC: 8.6073].

8. *KAMPFGRUPPE PEIPER* CAMPAIGN GAMES

8.1 *INTRODUCTION:* The *KGP* Campaign Games offer two or more players a series of interrelated scenarios dealing with the advance and subsequent entrapment of *Kampfgruppe Peiper* in the Stoumont-Cheneux-La Gleize area of Belgium during the German "Ardennes Offensive" of December 1944. Using this system, a variable number of scenarios are played, each simulating a part of the actual battle occurring on those days of the campaign. Up to three scenarios may be played *per "day" per Map Group* (see the 8.2 definition of "CG Date").

8.11 *BETWEEN SCENARIOS:* Between Campaign Game (CG) scenarios, players make use of a special CG phase called the Refit Phase (RePh) wherein each side takes stock of what has happened and prepares for further combat in the next CG scenario. In the RePh, Reinforcement Groups (RG) in the form of infantry/vehicle/gun sections/platoons and OBA modules—to name a few—may be purchased through the expenditure of Campaign Purchase Points (CPP).

8.12 *CASUALTIES:* Casualties suffered in a CG scenario, as well as those suffered in the ensuing RePh *through CG-Scenario End* (defined in 8.2), should be recorded on the *ASL* Scenario Aid Card (Chapter E divider) since amassed Casualty VP (A26.2) totals are used to determine certain RePh DRM (e.g., 8.6113).

8.13 *TEAM PLAY:* Each CG herein (8.51-.53) is easily adapted—indeed, recommended—for team play, with each player commanding certain unit types (e.g., one player controlling all the armor, and another all the Infantry, on their side). In addition, U.S. units may be easily apportioned according to their Entry Code color (8.6197). If desired, an overall commander may determine which RG his subordinate players will receive, assigning each to the one who requires it most.

8.14 *CG ROSTER & RG PURCHASE RECORD:* The enclosed printed copies of the *KGP* "CG Roster" and "RG Purchase Record" should be photocopied and used by players to record important CG information. See RePh steps 8.617-.619, 8.6032-.33 and 8.622 for most information on updating the CG Roster. See 8.6198 for specifics on the RG Purchase Record.

8.15 *CHAPTER P DIVIDER:* The Chapter P divider provides an offboard Holding Box for each mapboard Entry Area, for both available reinforcements and already-exited units/Equipment that are Retained for the next scenario. Units/-Equipment eligible to enter play should be kept in the top (unshaded), and Retained exited units/Equipment in the lower (shaded), portion of the box. Since reinforcements (and even Retained units) for each side can be kept secret, it is suggested that players make two photocopies of this divider so that each side has one on which to keep its forces out of the opposing side's view.

8.2 *DEFINITIONS & ABBREVIATIONS:* The following glossary explains abbreviations and important terms used in the *KGP* Campaign Game system.

CG: Campaign Game.

CG Date: Each CG Date consists of the calendar date plus an AM, PM or Night reference (e.g., "19 AM"). One CG scenario may be played per Map Group per CG Date—hence up to three CG scenarios may be played per Map Group per calendar day: one in the morning (AM), one in the afternoon/early-evening (PM), and one at night (N).

CG End: The CG-Scenario End (see definition below) that occurs on the final CG Date listed in 8.51-.53 (and on the CG Roster) for that CG—or, if one side concedes CG victory, the CG-Scenario End that occurs at the conclusion of the final CG scenario played in that CG—is also the CG End (i.e., is the end of the CG).

CG-LVP Total: The LVP value calculated by adding the side's Current-LVP Total (see definition below) to that side's CG-LVP Total from the *preceding* CG Date (if any); see 8.6033.

CG Roster: The sheet used to record information for each CG Date. During the RePh, one line is filled out for each CG Date. Players are urged to photocopy the one provided herein.

CG-Scenario End: Occurs when both the CG scenario being played *and* the ensuing RePh step 8.6031 have been completed.

CPP (Campaign Purchase Points): Used for purchasing RG in RePh step 8.619.

Current-LVP Total: The LVP value of all LVP Locations currently Controlled by the side.

Depleted: A German RG received at < Full Strength (see definition below).

Eligible: The status of an Entry Area enabling its use by a side for entry (and numerous other) purposes; see SSR CG6c (8.4).

Eliminated: Units/Equipment/Fortifications/RG "Eliminated" in a CG are removed from that side's OB (i.e., are not Retained). A vehicle/(Burnt-Out)-Wreck that is Eliminated while on-map is removed from the map.

Enterable: A hex/Location that the unit in question could enter (disregarding its occupation by a Fortification/enemy-unit) during a hypothetical MPh/APh. If defined in relation to a Setup/-Entry Area (or to a "path" of hexes drawn to/from/between such), the hex/Location must be Enterable along that "path". Neither a terrain-Blaze hex nor a river Location is Enterable.

Entry Area: Each map-edge hex that contains a large arrow with a blue/red/green/gray background color, plus each edge-hex within four hexes of that hex, plus the Holding Box (see definition below) of that Entry Area. The nationality symbol(s) in the arrow indicate(s) if the Entry Area is U.S./German. See also SSR CG6 (8.4).

Equipment: Any SW/Gun/Vehicle/Daisy-Chain that can be part of a side's OB. Any counter that can be Portaged/driven/Manhandled about on the map.

Escape: The RePh process by which a unit attempts to exit an Isolated Location, No Man's Land, an enemy Setup Area, or Uncontrolled Territory that it cannot remain in, to a friendly Setup Area or Eligible Entry Area; 8.606.

FPP (Fortification Purchase Points): Used to purchase Fortifications in RePh step 8.621.

Front-Line Hex: A Setup-Area hex that shares ≥ one hexside with ≥ one hex of an enemy-Setup-Area/No-Man's-land/Uncontrolled-Territory hex.

Full Strength: A RG received *in toto*. (U.S. RG are always received at Full Strength, while some German RG may be Depleted; see 8.6193 & 8.6201.)

Holding Box: The off-map (see 8.15) portion of an Entry Area. It is used for holding *all* units/Equipment that are Retained in (including those that Shift/Escape/Exit to), as well as those that will enter play as reinforcements via, that Entry Area. Each Holding Box contains (from top to bottom) the hex coordinate of that Entry Area's center (arrow) hex, the name of the Entry Area, the name(s) of the formation(s) that entered there historically, the CG Date on which the Entry Area becomes Eligible, an unshaded portion for the placement of reinforcements, and a shaded portion for exited units/Equipment. See also 8.15.



Idle Date: A CG Date in which both sides have picked an Idle chit (meaning that no scenario is played); 8.6232.

Initial Scenario: The first scenario of a CG (see 8.51-.53). A CG's Initial Scenario gives each side's setup/entry restrictions, Initial-Scenario Victory Conditions, starting OB (including certain predetermined RG and a pool of CPP to spend on additional RG), and SSR applicable only to that Initial Scenario. Each RG *not* available for use in an Initial Scenario is marked by a "‡" next to the number in that CG's "CG Maximum" column of the side's RG Chart.

Isolated: A unit/Weapon in a friendly Setup-Area Location from which it cannot trace a path of contiguous, Enterable, Uncontrolled-Territory/friendly-Setup-Area Locations to an Eligible Entry Area (or, for Germans on the "Lg" Map Group, to a designated "HQ hex"); see 8.6052. A Location/hex/Setup-Area is considered Isolated if an Infantry MMC would be Isolated upon being set up therein. See also SSR CG17 (8.4), 8.6057 and 8.6241.

***KGP*:** Of, or pertaining to, the *Kampfgruppe Peiper* Historical *ASL* Modules.

LVP (Location Victory Point): Each *KGP* Map Group has several hexes marked with a red dot that contains a white number. This number corresponds to the VP value of each *playable Location* of that feature. For example, each *existing* non- rooftop/cellar Location (even if rubbled) of a building so marked is worth a number of LVP equal to the number in that red dot, even if that particular hex of the building does not contain the dot. Rubble *falling* from an LVP building (B24.12-.121) is worth no LVP itself, and has no effect on the LVP value (if any) of the Location it falls into [EXC: whenever the rubbling of a LVP building/bridge reduces the number of its playable Locations, its total LVP value is correspondingly reduced]. See also the definitions of Current-LVP Total and CG-LVP Total.

EX: If *all* ten Locations of the St. Edouard sanatorium building (StAA15) are still non-rubbled *and* Controlled by one side at CG-Scenario End, they are worth 20 LVP to that side, since each such Location is worth two LVP. If, however, two *ground*-level Locations of the sanatorium have been rubbled, the building's LVP value is only 16 (two LVP for each of its eight existing, playable building/rubble Locations).

Map Group: Each Map Group[1] comprises two Map Sections [EXC: the "Ch" Map Group (used in CG II) contains only one Map Section]; see SSR KGP1. The "Ch" and "Lg" Map Groups will be contained in *KGP II*.

Map Section: One of the five *KGP* mapsheets. The five Map Sections included in the *KGP* modules are organized into three Map Groups.

No Man's Land: A *non-Strategic* Location within two hexes of both friendly- *and* enemy-Controlled Strategic Locations; 8.6051.

OB (Order of Battle): All units, Equipment, Fortifications and RG of a side that are eligible to participate in the next CG scenario.

● **Objective Hex:** Each initial-OB-given or purchased RG whose ID on a Reinforcement Group Chart begins with an "I"or "HW" allows the owning side to secretly designate an Objective Hex during RePh step 8.6198. An Objective Hex remains a *potential* Strategic Location even if not revealed on the CG Date it was designated. As soon as (but never before) such an Objective Hex is Controlled (as per A26.11-.12; even if during setup) by *Infantry* of the *designating* side, its identity must immediately be revealed to the opponent and it becomes a permanent Strategic Location. Once revealed, use a Control marker of the Controlling side to mark the hex. When *designated*, such a hex *cannot already be a Strategic Location* and must have at least one of the following attributes:

- Any in-hex TEM of ≥ +1;
- Any combination of ≥ three Crest-Line/slope/wall/hedge/road hexsides;
- A ford Location.

Pltn (Platoon): A CG RG organization type.

RePh (Refit Phase): The series of steps performed after each CG scenario. All Chapter P rules beginning with "8.6" are *KGP* CG RePh rules/steps. See also 8.6.

Reserve: German "I", "V" and "HW" type RG purchased on the same CG Date as the CG scenario being played must be set up in Reserve status (SSR CG7a; 8.4) [EXC: as per Initial-Scenario SSR, or if purchased at extra CPP cost for Standard On-Map Setup (8.6194a)].

Retained: All units, Equipment and RG in a side's OB that are available for setup/entry in the next CG scenario; i.e., all Initial-Scenario OB-given/purchased units/Equipment (or all units/Equipment remaining available from the previous scenario of the CG), and all RG purchased since the previous (if any) scenario of the CG. In *KGP*, such a unit/Equipment is required either to be set up in the Setup Area it was Retained in (8.6055; 8.6061) or to enter at an Eligible Entry Area (SSR CG6; 8.4) if Retained off-map; e.g., a unit ending a CG scenario in friendly Setup Area "X" must begin the next CG scenario in that same Setup Area [EXC: if Shifted to another Setup/Entry Area; 8.613].

RG (Reinforcement Group): Usually a number of units/Equipment purchased, as a group, for use in the CG as additions to a side's OB. Also includes FPP, Air Support, SAN increase, Bombardment, OBA, and Pre-Registered-hex capability.

RG Purchase Record: The sheet used to record the units-in/information-for each CG RG type (see 8.6198). One line is filled out for each RG purchased. Players are urged to photocopy the one provided herein.

Sect (Section): A CG RG organization type.

Setup Area: Each Strategic Location Controlled by a side, plus each *non*-Strategic-Location hex that is within two hexes of such a Strategic Location but *not* within two hexes of an *enemy*-Controlled Strategic Location (i.e., not a No-Man's-Land hex; 8.6051). Each such *non*-Strategic-Location hex must also be Enterable by *Infantry* from ≥ one Strategic Location of that Setup Area. Friendly Setup Areas that touch/overlap are treated as a single Setup Area. For an Initial Scenario, see also 8.5.

Shift: The RePh process by which a Retained unit attempts to exit its current Setup/Entry Area to another friendly Setup Area or Eligible Entry Area; 8.613.

● **Strategic Location:** Each building/rubble/bridge/entrenchment Location, each Objective Hex, and each Location that is occupied by a non-Abandoned Immobile vehicle with functioning MA of ≥ 20mm (or functioning FT MA) and/or by an unhooked non-malfunctioned Gun, is a Strategic Location [EXC: an Objective Hex not yet occupied by the designating side; see Objective Hex definition above].

Strength: A Pltn/Sect RG is received at Full—or, if German, possibly at Depleted—Strength (8.6193).

Uncontrolled Territory: All *non*-No-Man's-Land hexes that are part of *no* Setup Area; i.e., that are > two hexes from all Controlled Strategic-Location hexes (8.6053).

Weapon: Any SW/Gun/Vehicular-armament/Daisy-Chain using the IFT/TH table(s) to cause damage to the opponent.

8.3 *THE CG SCENARIOS:* The parameters of the Initial Scenario for each CG are given in 8.51-.53. Additional scenarios for that CG (and the Victory Conditions for each) are generated in a special between-CG-scenario sequence called the Refit Phase (RePh); 8.6. The CG continues until the specific CG Victory Conditions are fulfilled by one side (if applicable) or the completion of the last CG Date of that CG, whichever occurs first. Each side's initial Setup Area(s) for a non-Initial CG scenario is determined by the Strategic Locations Controlled by both sides at the previous CG-Scenario End.

8.31 *CG BALANCE PROVISIONS:* Should each player wish to play the same side (A26.5), the following Balance is used throughout each CG:

✙ The German Secret DR of 8.616 is halved (FRD).

☆ The U.S. Secret DR of 8.616 is halved (FRD).

8.4 *CAMPAIGN GAME SPECIAL RULES:* The following CG SSR apply in all *KGP* CG scenarios and RePh:

CG1. MAPS: Each CG uses its own Map Group; see 8.51-.53 and SSR KGP1.

CG2. *KGP* SSR: All *KGP#* SSR (see the Chapter P divider) are in effect except as amended below.

CG3. WEATHER: The historical weather for each CG Date is listed in 8.617. Alternatively, players may agree to use the optional 8.6171 random weather rules.

● **CG4.** ELR/MASSACRE: Each side's printed ELR given in the Initial Scenario (8.51-.53) of each CG is also treated as that side's printed ELR for all subsequent scenarios of that CG [EXC: for non-SS German ELR see SSR KGP11; if a Massacre (A20.4) occurs during any CG scenario/RePh, all effects listed in A20.3-.4 are applicable for the remainder of that CG; the Scenario Defender's ELR at night is one < it would be in a daytime scenario].

● NVR 6 cdr **CG5.** CG NIGHT SCENARIO: The NVR of a CG Night scenario is determined using E1.11 and the historical Moon Phase and Cloud Cover given in the 8.617 chart. The side(s) selecting the Attack chit in a night Assault scenario (8.6233) is considered the Scenario Attacker (E1.4; *despite* usually having units available to set up on-map); a side selecting the Idle chit is the Scenario Defender (E1.2). The Scenario Defender in a CG night Assault (8.6233) scenario has *automatic* Freedom of Movement (following any enemy attack besides a successful Ambush; E1.21) for his *two* best non-Reserve leaders. The Scenario Attacker may use normal Cloaking (E1.4-.43) for his Infantry, even if they set up on-map. (German Cloaking counters must be a different color than those used for any Reserves [SSR CG7a; 8.4].) Cloaking-counter HIP is NA. On-map Cloaked SW need not be dm. Scenario Defender reinforcements Retained off-map may enter at an Eligible Entry Area only following a RPh reinforcement dr of < the current Game Turn number, *or* automatically once any Scenario Defender unit has been attacked by other than OBA/Sniper or has seen a Known enemy unit. A reinforcing AFV with a radio releases other friendly AFV with radio as per E1.21 [EXC: those in Reserve; SSR CG7b]. See also SSR CG4 and CG23.

CG6. ENTRY AREAS: A large arrow denotes the *center* hex of each *nine-hex-wide* Entry Area (EX: StGG1; StN56; ChA10). If it is a U.S. Entry Area, the arrow contains a U.S. star and is color-coded to match ≥ one of the colors in the "Entry Code" column (8.6197) of the U.S. RG Chart. If it is a German Entry Area, the arrow is gray and contains a German cross. An arrow that is partly gray and partly a U.S. Entry-Code color indicates a U.S. *and* German Entry Area.

a) *U.S.:* A U.S. unit may *initially* enter *only* at an Entry Area whose arrow color-code matches at least one colored dot in the Entry Code column (8.6197) for the RG that unit is part of [EXC: if the unit Escaped, or Shifted, to its currently occupied Entry Area (8.6061; 8.613)], and only on/after the CG Date listed on that arrow (SSR CG6c) for the U.S. side [EXC: U.S. Early Entry (8.6194b)], regardless of the hex's current Control.

b) *GERMAN:* German units generally set up on-map, but may enter at an Eligible Entry Area if Retained in a Holding Box due to exit (SSR CG21), Escape (8.6061), Shift (8.613), or purchase for off-map reinforcement (8.6194a). See also SSR CG6c.



c) *ELIGIBILITY:* An Entry Area is *Eligible* to a side if the center (arrow) hex displays that side's nationality symbol *and* that side's CG Date listed on the arrow is (or antecedes) the current CG Date [EXC: if the U.S. uses Early Entry (8.6194b) in a CG scenario, *that* Entry Area is considered Eligible for the U.S. side during that scenario—but *only* for each U.S. RG using Early Entry therein, and for *all* U.S. units/Equipment exiting (SSR CG21) via, or Escaping (8.606) or Shifting (8.613) to, that Area *after* Early Entry has been used there]. Furthermore, the center (arrow) hex of a *German* Entry Area must also be German-Controlled in order for the German to consider it Eligible [EXC: German units/Equipment Retained in an otherwise-Eligible Entry-Area Holding Box at the start of a CG scenario may *enter* at that Entry Area regardless of who currently Controls its center (arrow) hex]. If the Germans currently have *no Eligible* Entry Area on the Map Group, all German units/Equipment Retained off-map (including all purchased since the previous CG-Scenario End) may *only* enter from off-map at a *German* Entry Area; i.e., none of them may be set up on-map [EXC: on the "Lg" (only) Map Group, they must set up on-map (and in Reserve as per SSR CG7a if "T"-, "V"- or "HW"-type RG].[12] A U.S. Entry Area may be used by the U.S. side regardless of who Controls the center (arrow) hex. See also SSR CG20.

CG7. RG SETUP/ENTRY: Each RG listed in an Initial Scenario's OB is available for on-map setup/entry as specified below. If set up on-map, units/Equipment of a RG must be set up in the friendly Setup Area they are Retained in (or as defined by Initial Scenario setup restrictions). All units/Equipment that set up off-map during the RPh (A2.51) but do not enter during that same Player Turn are returned to the *shaded* portion of their Entry Area's Holding Box; they forfeit their entry in the present, but are Retained for the next, CG scenario. All units/Equipment of the same RG must *initially* either be set up in the same Setup Area or enter at any hex(es) of the same Entry Area. In addition, certain *purchased* RG must also set-up/enter as per the following nationality-specific rules:

a) *GERMAN RG:* Each German RG whose ID (8.6191) on the German RG Chart begins with "T", "V" or "HW" which was *purchased* on the same CG Date as the CG scenario being played may be set up on-map only if set up in Reserve using the principles of Cloaking (E1.4; see also below) [EXC: if it would set up on the "St" or "Ch" Map Group but the Germans have *no Eligible* Entry Area thereon; if purchased at extra CPP-cost for Standard On-Map Setup (8.6194a); Initial-Scenario SSR L2 (8.51)], even when the German is the Scenario Attacker/Defender at night. If unable to be set up in Reserve, such a RG is instead Retained in the unshaded portion of any German-Entry-Area Holding Box of that Map Group and may enter on/after Turn 1 [EXC: as per Initial-Scenario SSR or SSR CG5] as per SSR CG6c; all, some or none (including individual RG units) may enter on each turn. For non-Reserve German RG, see SSR CG15 and 8.6194-.6194a.

For each Reserve RG purchased, the German receives one Reserve Cloaking counter (i.e., a "½" "?" of any unused nationality) for each MMC that will set up as Infantry, plus one for each vehicle, in that RG. Each Reserve RG purchased may (at its owner's option) also automatically include one Reserve Dummy Cloaking counter (usable in a day/night scenario). Each Reserve Cloaking counter may represent a maximum of one vehicle (plus its PRC and towed Gun or trailer) *or* one Infantry unit/stack (and its possessed Equipment), and must be set up at ground level in a non-Isolated, friendly-Setup-Area Location ≥ eight hexes (or, if this is not possible, as far away in hexes as possible) from all U.S. Setup-Area and all U.S. Entry-Area hexes. Reserve Cloaking-counter HIP is NA. The pertinent CA/-CE-status information of each Reserve vehicle must be recorded (each Reserve AFV is considered CE unless noted otherwise by the owning player; see also SSR CG10 and SSR KGP8). The Cloaking counter of a Reserve vehicle in Bypass is set up *in* the hex in the normal manner rather than straddling its hexside, but that hexside and the vehicle's CAFP must be recorded. Reserves cannot Deploy/-Recombine, and are ignored for the purposes of Deployment/HIP/"?" limits.

b) *RELEASE:* During a CG scenario, each Reserve unit/stack must remain Cloaked—and may conduct no action whatsoever—until an enemy ground unit is in its LOS within six hexes, *or* until subjected to an *enemy* attack (including Bombardment/WP/Sniper) that results in loss of the Cloaked Reserve unit's/-stack's concealment, at which time its owner may (or must, if the Reserve Cloaking counter was so attacked or was revealed by Detection as per A12.15) reveal that Reserve Cloaking counter's contents (if any) by placing them on-map unconcealed. In general, the contents (if any) of a Reserve Cloaking counter are considered to not exist until they are revealed. The following apply to Reserve Cloaking counters:

- A Reserve Cloaking counter is ignored for all Overstacking, concealment loss/-gain, Interrogation and Control purposes;
- A non-Cloaked Dummy stack and a Reserve Cloaking counter may neither set up, nor end a phase, together in the same Location;
- A Reserve Cloaking counter is an ineligible Sniper target (A14.22);
- A Reserve Cloaked leader may not use his leadership benefits for any purpose;
- If a Flame/Blaze occurs in a Location that contains a Reserve Cloaking counter (even a Dummy), that counter may move/advance once to an ADJACENT non-Blazing Location—provided it is not moving closer (in hexes) to an enemy ground unit regardless of LOS. If it cannot do so, its owner may at that time place it anywhere within three hexes of its current hex, though he may not place it closer to an enemy ground unit and must otherwise abide by the rules pertaining to Reserve setup.
- Each Dummy Cloaking counter is Eliminated at the end of play (8.602e).
- Each RG unit/Equipment piece that is still Cloaked at scenario end is revealed (8.602g) and Retained (8.605-.606).

c) *U.S. RG:* Each U.S. RG whose ID (8.6191) on the U.S. RG Chart begins with "T", "V" or "G" which was purchased on the same CG Date as the CG scenario being played enters on/after Turn 1 as per SSR CG6a [EXC: as per Initial-Scenario SSR, SSR CG5, or 8.6194a]—as do all U.S. units/Equipment Retained off-map in Holding Boxes from the previous CG scenario. All, some or none (including individual RG units) may enter on each allowed turn. U.S. RG cannot be set up in Reserve. For other U.S. RG types, see SSR CG15 and 8.6194-.6194b.

CG8. OPTIONAL VEHICULAR EQUIPMENT: All desired optional armament (e.g., AAMG; bow-mounted FT [U.S. Vehicle Note F]) must be rolled for individually (H1.41). Consult the applicable Vehicle Note(s). If so equipped, no additional CPP cost is assessed. For Schürzen see SSR KGP14. For Gyrostabilizers see SSR KGP17.

CG9. WEAPON/CREW REMOVAL: A Retained vehicle may begin (i.e., set-up/-enter) a CG scenario with any/all eligible armament Removed (D6.631). A Retained vehicle may begin a CG scenario abandoned. Such a Removed-Weapon/-crew counter must begin that CG scenario in the same Setup/Entry Area as the vehicle it came from.

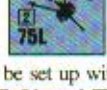
CG10. STATUS MARKERS: During its setup, each side may opt to secretly record the BU, CE, TCA, bogged (SSR KGP8), Immobilized, abandoned, Out-of-Gas, malfunctioned, disabled, Fanatic and/or Low-Ammo status of its vehicles/Guns/personnel in lieu of placing the appropriate marker(s) on them. Place the actual marker(s) when the piece is non-concealed and within 16 hexes of any enemy ground unit that has a LOS to it.





CG11. CONCEALMENT: Each Infantry unit (and its possessed Equipment) setting up in Concealment Terrain may set up concealed, regardless of enemy LOS. Each vehicle may begin concealed if it is set up in Concealment Terrain ≥ six hexes from the nearest enemy Setup-Area Location. Such "?" need not be purchased; i.e., each is placed freely. Otherwise, A12.12 applies in the normal manner. The side setting up first may conceal each eligible unit before the opponent views the setup; likewise, the side setting up second may conceal all eligible units before his opponent views that setup. For purposes of "?" placement prior to the start of play, a Location is also considered Concealment Terrain if it is out of the LOS of all *opposing* Setup Area *Locations* (including an Initial Scenario's listed setup limits), considering current Mist/NVR visibility limits. "?" purchased in the RePh (8.621) and those received at night (E1.2) are intended mainly for use as Dummies.





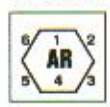
CG12. BORE SIGHTING & GUNS: Bore Sighting is NA [EXC: Eligible SW MG may Bore Sight at night]. A12.34 applies in the normal manner. Each non-vehicular Gun that ended the last CG scenario on-map must be set up within three hexes of the Location in which it ended that scenario [EXC: 81mm MTR; Escape (8.606-.6061); Shift (8.613); if at the start of setup (RePh step 8.624) it is hooked up to a Mobile vehicle; if a CG Idle Date has been generated; instead, it may set up anywhere in its current Setup Area], regardless of whether it will be set up (un)hooked. Each SW/Gun in a Setup Area that contains Personnel may be set up (un)hooked/(un)limbered/(non-)dm unless otherwise prohibited.



CG13. GERMAN PF: For each CG scenario, the number of PF initially available to the German side is 1½ times the number of non-Reserve German *squads* set up on-map. During play, whenever ≥ one *squad* is released from Reserve (SSR CG7b) or enters as a reinforcement, the number of available PF is immediately increased by 1½ per such squad. (To indicate an extra "½ PF", move the PF Remaining marker *halfway* into the next box of the PF Usage Track; a "½ PF" does not itself entitle the German to a PF attempt.)



CG14. GERMAN FANATICISM: For two CG scenarios of each CG [EXC: *once* during CG II], the German may declare that all of his Personnel are Fanatic for the entire scenario (including vs Bombardment). This must be declared immediately upon the conclusion of all on-map setup.



CG15. OBA: Each side's available OBA is limited to a maximum of two (including U.S. 60mm) modules per Map Group per CG Date [EXC: this limit does not apply to U.S. RG "O3" (M12 GMC OBA); a Bombardment RG is not an OBA module]. For the purposes of this

rule, "available" means having the module's radio/field-phone in play (or using its Offboard Observer) at any time during a CG scenario. A radio/field-phone counter (and its associated OBA module) is immediately Eliminated when its OBA is exhausted, or in the RePh (8.602d) if its OBA was "used" as per SSR CG22 in the previous scenario. On an OBA RG's CG Date of purchase, its radio or field phone is placed with non-Isolated Personnel in any friendly Setup/Entry Area [EXC: field phones may be used only by the U.S., and only if they set up on-map with non-Isolated Infantry; see also U.S. RG Chart footnote "o"]. Each field phone's Security Area (C1.23) must comprise Enterable (by Infantry) Locations that are not within an enemy Setup Area, and must be drawn to a map-edge that contains ≥ five edge-hexes of a U.S. Eligible Entry Area. A new Security Area may be recorded for each CG scenario. If no legal Security Area can be traced during setup, that field phone is Eliminated but the player may immediately add a *new* radio or field phone (for the Eliminated phone's OBA module) to some *other* non-Isolated friendly Setup (or, for the radio, Eligible Entry) Area. See also SSR CG22 and 8.6206.



CG16. SNIPERS: Each side may use *two* Sniper counters per CG scenario per Map Group [EXC only *one* on the "Ch" Map Group]. If > one Sniper per side is in play, each must still be set up initially as per the first two sentences of A14.2, but with ≥ 15 hexes between them (or as far apart as possible if they cannot set up ≥ 15 hexes apart); when a Sniper attack can occur, make a dr to randomly determine which one actually attacks (assign numbers so that each has an equal chance). The SAN is never altered by the presence of > one friendly Sniper in play simultaneously. Any result (e.g., Pin) affecting a Sniper counter affects all friendly Snipers on that Map Group simultaneously. See also 8.6122.

CG17. U.S. AMMO SHORTAGE REMOVAL: When a Good Order U.S. Infantry unit suffering from Ammunition Shortage due to Isolation (8.6241) *begins* a friendly Player Turn in the same Location as an armed, Good Order U.S. Infantry MMC that is not itself suffering from Ammunition Shortage *and* whose US# is ≥ that of the other MMC, its Ammunition Shortage ceases to exist at the end of that Player Turn provided both units become TI and remain in Good Order throughout that Player Turn. A U.S. MG [EXC: .50-cal HMG] SW's Ammunition Shortage is removed whenever it is possessed by an armed, Good Order U.S. MMC that is not suffering from Ammunition Shortage. All other U.S. Weapons suffering from Ammunition Shortage lose that status only by ending a CG scenario non-Isolated.

CG18. SELF RALLY: Each side is allowed a number of non-Disrupted MMC Self Rally attempts (per Map Group) equal to the number of Map Sections of that Map Group, provided (as per A18.11) each such attempt is carried out before other friendly MMC Rally attempts.

EX: Two Self Rallies may be made on the "St" Map Group per friendly Player Turn.

CG19. TERRAIN CHANGES: Each alteration of printed terrain that occurs during a CG is permanent, barring subsequent Clearance/removal (as applicable). All Fortification, Rubble, Breach, Trailbreak, Shellhole and (Burnt-Out; SSR KGP10) Wreck counters are left on-map from scenario to scenario (unless removed due to a Blaze or falling rubble, etc.; for Wrecks, see also the 8.2 definition of "Eliminated"). Each terrain Blaze is resolved in RePh step 8.609-.6095. No Wreck is removed from play due to being in a terrain Blaze; it remains on-map (still treated as a LOS Hindrance), and in RePh step 8.6091-6093 it becomes/remains a Burnt-Out Wreck [EXC: 8.6095]. Whenever a vehicle is Out of Gas, Immobilized, Abandoned, and all of its present Inherent Weapons are disabled (or it has no Inherent Weapons), it is immediately replaced by a Burnt-Out Wreck (if this occurs during play, the opponent is awarded the appropriate number of Casualty VP). However, a vehicle that has no Wreck depiction (D1.9) can *never* be turned into a (Burnt-Out) Wreck; it is instead simply removed from play. Whenever a *non-Burnt-Out* Wreck is Out of Gas and Scrounged (if it had any Scroungeable Weapon), it is immediately replaced by a Burnt-Out Wreck.

CG20. VIADUCT ENTRY AREA: No vehicle may ever use (i.e., enter/exit via, Escape to, or Shift to/from) the ChHH0 "Viaduct" Entry Area.[13]

CG21. MAP EXIT: Each Personnel/Equipment piece that exits the map via an *Eligible* Entry Area during play cannot re-enter during that scenario, but is Retained (unless Shifted; 8.613) in that Entry Area's Holding Box [EXC: all German Personnel/Equipment so exited off the "Lg" Map Group during CG III are immediately Eliminated]. However, each such *broken* Personnel unit must take a NTC (a Good Order leader's DRM can apply) immediately upon exiting; failing this NTC causes its Casualty Reduction (if it is Eliminated, so is its possessed Equipment). Everything exited at any other Location during play is Eliminated. In both cases, such Elimination counts for Casualty VP purposes. Retained exited units/Equipment are placed in the shaded portion of that Entry Area's Holding Box.

CG22. RETAINED RG: Regardless of whether it was used during a CG scenario, each purchased/OB-given RG (or part thereof, including each Pre-Registered-hex/-radio/field-phone assigned to an OBA RG, even if that radio/field-phone *counter* was Eliminated during play), is Retained until Eliminated/Recalled in a CG scenario or its subsequent RePh. For purposes of this rule, an OBA RG is considered to have been used (and thus will be Eliminated in the next RePh; SSR CG15) if ≥ one FFE:1 counter from that module was placed during the previous scenario. (If Retained, the OBA's Draw Pile [C1.211] is restored to the number of red and black chits it had at the start of the previous scenario, and its radio or field phone is restored if it was Eliminated. During the RePh, each radio/field-phone may be freely relocated within its present Setup Area, or Shifted [8.613], and each non-Eliminated Pre-Registered hex may have its hex coordinate changed to that of a legal new hex.) A FB RG is considered to have been used if ≥ one of its FB made a Sighting TC DR; once so used (or if the FB RG was Recalled as per SSR KGP3), the entire FB RG is Eliminated at the end of the scenario. Each unentered RG (or part thereof) is Retained in the Holding Box of its Entry Area [EXC: if Shifted; 8.613]. U.S. 60mm OBA is considered an OBA *RG* for the purposes of SSR CG15 and CG22 (only).

CG23. GAME END: A Turn Record Chart is printed on one map of each Map Group. Each CG scenario has a variable Game Turn length. At the *end of each Player Turn* of Turn 6, and at the end of *each Player Turn* thereafter, the ATTACKER makes a Game End dr; if it is ≤ the circled number in the current turn's box on the CG Turn Record Chart, the scenario ends immediately. There is a +1 drm to each CG Night scenario Game End dr.

EX: At the end of *either* Player Turn of Game Turn 7 in a daytime scenario, play ends immediately on a Game-End Original dr of ≤ 3.

8.5 *INITIAL SCENARIO:* The special information needed to play each CG's Initial Scenario is provided in 8.51, 8.52 and 8.53 respectively. For each Initial Scenario, players *begin* with RePh step 8.618 (German Ammunition Shortage) and *complete* RePh steps 8.618-.621 (these steps are preceded by a † in the RePh Sequence; 8.6). In addition, for each Initial Scenario:

- The actual Strengths of most German OB-given and purchased (8.619) RG must be determined in the normal manner (8.620);
- German Initial-Scenario *OB-given* (as opposed to purchased) RG need not be set up in Reserve;
- The Quality (8.6202) and exact unit type (8.6203) of certain U.S. OB-given and purchased RG must be determined in the normal manner (8.620);
- Weapons and leaders are determined in RePh steps 8.6204-.6206;
- Each side is considered to initially Control each Strategic Location and Entry Area within—but not those outside of—its initial setup boundaries.



8.51 *KGP* Campaign Game I: CLASH AT STOUMONT

CG Dates: 19 AM – 21 PM [eight CG Dates]

One of the two armored spearheads of the German *6. Panzer Armee* in the Ardennes offensive was *Kampfgruppe Peiper* of *SS-Panzer Division 1 "Leibstandarte Adolf Hitler"*. This *Kampfgruppe* comprised various elements of *SS-Panzer Regiment 1*, *SS-Panzergrenadier Regiment 2*, *SS-Panzer Artillerie Regiment 1* and *SS-Panzer Pionier Bataillon 1*, with *schwere SS-Panzer Abteilung 501* and *FlaK-Sturm Abteilung 84* attached. After a slow start on 16 December due to poor road conditions, traffic jams, minefields, and the less than satisfactory progress of *Volksgrenadiers* trying to breach the initial American positions, the *Kampfgruppe* rolled through the U.S. lines with relative ease. A bridge across the Amblève river at Stavelot was seized on the morning of the 18th; but at Trois-Ponts, a village nestled amidst high hills and named after its three bridges, American engineers blew the bridge that controlled the exit west from the Amblève valley, forcing Peiper to follow the right bank of the river to La Gleize through the most mountainous terrain in Belgium. After capturing another bridge over the Amblève at Cheneux that afternoon, Peiper's lead column was rebuffed farther on near Habiémont. Denied exit from the river valley once again, the armored tip of *KG Peiper* halted for the night in the woods between La Gleize and Stoumont. At about the same time, the U.S. 3/119th Infantry began detrucking in the latter village. To the sound of Germans singing loudly in the distance, the GIs deployed and dug in—though darkness prevented them from choosing positions with optimum fields of fire. Just before dawn, several Shermans and two 90mm AA guns arrived to bolster the defenses; unfortunately for the Americans, one of the latter fell into a ditch as it was being positioned and had to be abandoned. On this ominous note, the stage for the coming battle was set.

MAP GROUP: "St"

CG I VICTORY CONDITIONS: The Americans win if their CG-LVP Total is ≥ 130 at any CG-Scenario End—or if they Control all hexes occupied by buildings AA15, J19 and P56 (even if ≥ one of these buildings becomes partially/totally rubbled at ground level) at CG End.

ATTACK-CHIT LIMITS (8.6231): U.S. 5; German 3.

INITIAL-SCENARIO VICTORY CONDITIONS: The Germans win if at CG-Scenario End they have amassed ≥ 50 Casualty VP *more* than the Americans and/-or the German Current-LVP Total is ≥ 28.

INITIAL-SCENARIO SETUP SEQUENCE: U.S. sets up first; German moves first.

INITIAL U.S. OB:

- **Elements of the 3rd Battalion, 119th Infantry Regiment, of Company C, 743rd Tank Battalion, of the 823rd Tank Destroyer Battalion (SP), and of Battery C, 143rd AAA Gun Battalion (Mobile) [ELR: 3]** set up within three hexes of any *building* hex(es) with a coordinate of ≥ 19 but ≤ 34 [EXC: see SSR I.2]; each Gun, and ≥ 15 non-crew MMC squad-equivalents, must set up in non-building Locations: [SAN: 3]

RG: Inf Pltn ×6	**RG:** AT Pltn I	2-2-7 ×5
RG: Med Tank Pltn II	76L AT ×4	1S Foxhole ×15
M4A3 MT ×3	90L AA (M2)	25 CPP
M8 AC ×2	M4 Tractor	

INITIAL GERMAN OB:

- **Elements of SS-Panzer Regiment 1 and SS-Panzergrenadier Regiment 2 [ELR: 5]** set up on/east-of Hex Grains A29-S38-S57 [EXC: ≤ three infantry-type pltns (RG I1/I2/I4 *only*) may enter along the south edge on/after Turn 1; all, some or none may enter on each turn]: [SAN: 2]

RG: SS PzGr Pltn ×4	**RG:** Pz V Sect ×4	85 CPP
RG: SS PzGr HW Pltn	**RG:** Pz IV Sect ×4	

INITIAL-SCENARIO SPECIAL RULES:

The following SSR apply *only* to the 19 AM Initial Scenario of CG I.

I.1 See KGP SSR. Weather is Extremely Heavy Mist (SSR KGP3).

I.2 All OB-given and purchased RG of both sides may be set up on-map at no extra CPP cost [EXC: Germans need not set up in Reserve; the U.S. OB-given Med Tank Pltn II RG must enter at HH0 following a reinforcement dr of two < the current Game Turn number; if still unentered at scenario end, it is Retained in the Holding Box of the Targnon Entry Area].

I.3 Each U.S. Gun must be set up unhooked and unlimbered, and its starting CA is determined by a dr when it is *initially* revealed. If this dr is ≤ 2 the Gun uses its *pre-recorded* CA; on a dr of 3-4 it must pivot one hexspine clockwise; on a dr of ≥ 5 it must pivot one hexspine counter-clockwise. [EXC: If an AT is attacked by non-ordnance fire before its CA has been determined, its owner makes the dr secretly; this sets the CA (thus determining, as applicable, if the gunshield will modify the attack) even if the Gun is not revealed by the attack.]

- **I.4** U.S. cannot purchase trenches. One M4A3 MT in the initial U.S. OB may be recorded as *automatically* equipped with a FT as per U.S. Vehicle note F (Only one of the three initial M4A3's may be equipped with a FT).

AFTERMATH: At first light, through a dense early-morning mist, the Germans mounted a full-scale assault. The main push came from the east, with smaller groups attacking from the south and northeast. With visibility so poor, they were almost into the American defenses before the latter could open fire. The GIs resisted bravely for several hours, and for a time the German attack seemed to falter—but the eventual loss of all the U.S. AT guns shifted the balance in the Germans' favor. The Americans were finally forced to fall back, and, covered by the remaining Shermans, most withdrew along the N.33 through the lines of the 1/119th Infantry some 3000 yards west of Stoumont. In its defense of the town the 3/119th had suffered losses of over 250 men, including about 100 taken prisoner. A small German force probed ahead on the heels of the withdrawal, but was stopped cold—with the loss of three Panthers—in front of the 1/119th. To conserve his dwindling stocks of fuel and ammunition, Peiper called a halt to await resupply and pulled most of his advance force back down the N.33 to the edge of Stoumont. That village, along with Cheneux and La Gleize, were to become strongholds until the supply situation permitted further advance. However, unbeknownst to Peiper, U.S. forces had already cut his link to the rear by retaking Stavelot. On the 20th, Task Force Jordan arrived from Theux and probed the defenses of the rocky pass just north of Stoumont; but the loss of two tanks to German fire, combined with the restrictive terrain, forced it to halt for the night. In the late afternoon, the 1/119th Infantry and the "bastard tanks" of the 740th Tank Battalion (their crews had not yet seen action and on the previous day had hurriedly drawn a menagerie of AFVs from a nearby repair depot) attacked from the west along the N.33; at dusk they reached the outskirts of Stoumont, and later that night captured the St. Edouard Sanatorium. Around midnight, however, the Germans unexpectedly counterattacked the building and quickly retook most of it. Shortly before daybreak they also tried to push the Americans back along the N.33, but were stopped with little gain. On the afternoon of the 21st, the 1/119th attempted, to no avail, to recapture the sanatorium. At the same time, TF Jordan and the 3/119th tried using the forest tracks through the woods north of Stoumont; they reached the edge of the trees despite heavy resistance, but German tanks prevented further progress. In the meantime, however, the fresh 2/119th Infantry, moving through the Bois de Bassenge, reached the N.33 near the St. Anne Chapel only about 800 yards from Peiper's HQ. The Germans soon pushed them back, but this new and dangerous threat to Peiper's rear, combined with U.S. artillery fire pouring incessantly into Stoumont, prompted him to order a withdrawal to La Gleize. This was accomplished without incident after dark; and on the afternoon of the 22nd the Americans—who ironically had decided to forego further attacks until reinforcements could be brought up—entered Stoumont virtually unopposed.



8.52 *KGP* Campaign Game II: THE BRIDGE AT CHENEUX

CG Dates: 20 PM – 21 PM [four CG Dates]

Although Peiper's attempt on the 18th to exit the Amblève valley via Cheneux had been stopped by the "damned engineers" near Habiémont, the German commander decided to hold Cheneux as a bridgehead across the river. To this end he ordered it garrisoned, mainly by elements of *FlaK-Sturm Abteilung 84*. Even as this was being done, the U.S. 82nd Airborne Division was moving east to plug the gap in the American defenses between the 30th Infantry and 7th Armored divisions. When scouts from the 504th Parachute Infantry Regiment, already warned by civilians that the Germans were in Cheneux, approached the western outskirts of the village on the morning of the 20th, they spotted a woman standing between two houses. Her warning gestures clearly indicated that her house was occupied by Germans; having also spotted two *flakwagens* and a machinegun position near Boutet's house, the scouts withdrew to report. Consequently, the paratroopers of B and C Companies were ordered to move up from Rahier. In the meantime the German bridgehead was reinforced by the last elements of *KG Peiper* to reach La Gleize before the Americans shut the door completely in the Trois-Ponts area: *Battalion II* of *SS-Panzergrenadier Regiment 2*, which arrived on foot with only the supplies and equipment its men could carry. As Company B neared Cheneux, it was met by a wall of fire from automatic weapons. Both paratroop companies then deployed in the dense mist and advanced, supported by a captured German halftrack mounting a 75mm howitzer.

MAP GROUP: "Ch"

CG II VICTORY CONDITIONS: The Americans win if they Control ten LVP hexes [EXC: the NN6 bridge Location counts as 5 such hexes] at game end, or immediately if the Germans cause (even accidentally) that bridge's destruction.

ATTACK-CHIT LIMITS (8.6231): U.S. 3; German 1.

INITIAL-SCENARIO VICTORY CONDITIONS: The Americans win if their Current-LVP Total is ≥ 1 at CG-Scenario End.

INITIAL-SCENARIO SETUP SEQUENCE: German sets up first; U.S. moves first.

INITIAL GERMAN OB:

Elements of Battalion II, SS-Panzergrenadier Regiment 2, and of FlaK-Sturm Abteilung 84 [ELR: 5] set up on/east-of (Alternate) Hex Grains G1-G14-CC25-TT25; however, a maximum of one German MMC (and all SMC/SW stacked with it), *or* one vehicle (and all its PRC), may be set up *per hexrow* on/west-of hexrow V (even if in Reserve), and each entrenchment set up on/west-of hexrow V must contain ≥ one German MMC: [SAN: 4]

RG: SS Inf Pltn ×2	**RG:** AAht Sect I ×2	Roadblock
RG: SS MG Pltn	**RG:** AAht Sect II	35 CPP
	RG: AAtr Sect	

☆ INITIAL U.S. OB:

Companies B and C of the 1st Battalion, 504th Parachute Infantry Regiment [ELR: 5] enter along the west edge as per SSR CG6a (8.4): {SAN: 2}

RG: Para Inf Pltn ×3 SPW 251/9 (see SSR II.5) 24 CPP

INITIAL-SCENARIO SPECIAL RULES:

The following SSR [EXC: II.5 and II.6] apply *only* to the 20 PM Initial Scenario of CG II.

II.1 See KGP SSR. Weather is Very Heavy Mist (SSR KGP3).

II.2 Each hex that is *not* an eligible German setup hex is considered a U.S. Setup-Area hex for the purposes of Reserve setup (SSR CG7; 8.4) only.

II.3 Place one Burnt-Out Wreck in hex K10 and one in GG8.

II.4 Purchased U.S. "I#" and "V#" RG units enter on/after Turn 2. All, some or none may enter on each allowed turn.

II.5 The U.S. OB-given SPW 251/9 is manned by a U.S. vehicle-crew (A21.22). Captured penalties apply, but for *this* Inherent crew (only), all such penalties are reduced by one (A21.11-.12) [EXC: the MA's ROF is "1"]. MA/Immobilization repair attempts and the optional CMG are NA. Red MP penalties apply (D2.51).

II.6 No mines or German vehicle may be set up in, nor may any German vehicle voluntarily Stop, change VCA or attempt ESB in, bridge Location NN6.

AFTERMATH: As the paratroopers moved through the thick mist, the Germans again unleashed a hail of fire from machine guns and 20mm flak pieces. To make matters worse, the Americans also found their path of advance down the bare hill crossed by numerous barbed-wire fences which greatly impeded their movement. With losses mounting rapidly, they were forced to pull back and await further orders. The 504th's commander, Col. Reuben Tucker, insisted that they resume the attack, so after nightfall the two companies advanced again. This time, with the darkness aiding their concealment but facing no less intense fire from the defenders, they managed to close in on Boutet's house and engage several *flak-wagens* in close combat. As this was occurring, two self-propelled tank destroyers sent forward by Col. Tucker made a fortuitous appearance, enabling the surviving paratroopers to take the house. They now had a toehold in the western outskirts of the village; despite heavy losses, the fighting continued all night. On the 21st, Company G of the 3/504th arrived to bolster the assault on the village. Furious house-to-house combat continued, with the Germans slowly yielding ground. In the meantime the other two companies of the 3rd Battalion, now south of Cheneux, pushed north through the hamlet of Monceau with the Amblève bridge as their objective. By late afternoon the German position was desperate, and that evening they retreated across the railroad viaduct to La Gleize, leaving behind all their heavy equipment. Peiper's bridgehead was eliminated, at a cost of some 225 "All-Americans" of the 504th. B Company had only 18 men left and no officers; C Company but 38 men and 3 officers. The Germans had suffered about 200 killed in the fighting, plus an unknown number of wounded and 31 taken prisoner.



8.53 *KGP* Campaign Game III: DECISION AT LA GLEIZE

CG Dates: 19 PM – 23 PM [thirteen CG Dates]

The picturesque village of La Gleize, situated on a small promontory some 700 yards north of the Amblève river, commanded the road north to Spa, those leading west to Stoumont and Cheneux, and those going south to Trois-Ponts and Stavelot where the main body of *SS-Panzer Division 1* was laboring to catch up with *Kampfgruppe Peiper*. La Gleize was thus the linchpin of Peiper's defenses, and throughout the fighting he retained a significant portion of his forces in that area. When on the morning of the 19th the Americans first detected enemy activity around La Gleize, the commander of the 117th Infantry Regiment moved his Company K to Cour and Company L to Roanne, allotting each some Sherman tanks for support. In the afternoon, the first platoon of GIs to arrive at Roanne was ordered to push on toward La Gleize, some 2000 yards to the southeast, to reconnoiter the situation there.

MAP GROUP: "Lg"

CG III VICTORY CONDITIONS: The Americans win if at any CG-Scenario End their CG-LVP Total is ≥ 160 and/or they Control *all* existing LVP Locations.

ATTACK-CHIT LIMITS (8.6231): U.S. 8; German 3.

INITIAL-SCENARIO VICTORY CONDITIONS: The Americans win if at CG-Scenario End they have amassed ≥ 10 Casualty VP and/or Control both hex S55 *and* bridge Location R46.

INITIAL-SCENARIO SETUP SEQUENCE: German sets up first; U.S. moves first.

✠ INITIAL GERMAN OB:

Elements of Kampfgruppe Peiper [ELR: 5] set up, using HIP if in Concealment Terrain and not in Reserve, on/west-of Hex Grains A44-AA57-FF56 and on/-south-of Hex Grain FF1-FF56: {SAN: 2}

RG: SS PzGr Pltn PzKpfw VIB (see SSR III.4)

RG: SS Inf Pltn 30 CPP

☆ INITIAL U.S. OB:

Elements of Company L, 3rd Battalion, 117th Infantry Regiment, and the 1st Platoon of Company A, 743rd Tank Battalion [ELR: 4] enter as per SSR III.5: {SAN: 2}

RG: Inf Pltn **RG:** Med Tank Pltn II 8-0 14 CPP

INITIAL-SCENARIO SPECIAL RULES:

The following SSR apply *only* to the 19 PM Initial Scenario of CG III.

III.1 See KGP SSR. Weather is Moderate Mist (SSR KGP3).

III.2 Each hex that is *not* an eligible German setup hex is considered a U.S. Setup-Area hex for the purposes of Reserve setup (SSR CG7; 8.4) only.

III.3 The German player may not spend additional CPP for Standard On-Map setup (8.6194a) of purchased RG, nor may he purchase any roadblock(s).

III.4 The OB-given PzKpfw VIB must be set up Immobilized (not Out of Gas) in hex R44 (VCA: R43-S44).

III.5 The U.S. OB-given Inf Pltn RG and 8-0 enter on Turn 1 within two hexes of V56. All other U.S. "I#"/"V#"/"G" RG enter as per SSR CG6a (8.4) following a reinforcement dr of < the current Game Turn number (make a separate dr for each such RG).

III.6 Beginning on Turn 3, the German player may make a DR during each friendly RPh. If this Final DR is ≤ the current Game Turn number, any one Reserve Cloaking counter (German's choice) is immediately Released (SSR CG7b; 8.4). A +1 DRM applies for each Reserve Cloaking counter that has already been Released.

AFTERMATH: The small force of GIs duly moved out, and advanced uneventfully at first—but near a ford across the Roannay stream they were ambushed by hidden *SS-panzergrenadiers*. Their supporting Shermans arrived shortly thereafter, and began firing through the mist at a King Tiger sitting on the N.33 where it had thrown a track the previous day. Suddenly one of the Shermans blew up violently, hit by a German gun firing from Hassoumont. These reverses stopped the Americans cold; they pulled back to Roanne and, after such an inauspicious start, made no further moves against La Gleize that day. In the meantime, however, U.S. troops and equipment continued to arrive. On the morning of the 20th, Company K and its supporting Shermans advanced to Borgoumont, where around noon they were joined by the tanks and armored infantry of Task Force McGeorge. Shortly afterward they advanced along the road toward La Gleize, catching the Germans offguard in Hassoumont. However, after heavy fighting that lasted into the night, the GIs were forced to withdraw behind the Nabonru stream. Also at about noon, U.S. forces advanced from the east toward Marechal's mill, but were rebuffed by the Germans holding the buildings. The 21st saw TF McGeorge, following another futile attempt to close in on La Gleize, abandon Borgoumont for a wide flanking move to the east and south in order to attack northward along the N.33. Fighting continued around Marechal's mill as well—and all the while, American artillery pounded the defenses in and around La Gleize. That night the Germans abandoned the mill, and the exhausted survivors of the fighting at Stoumont and Cheneux made their way into the perimeter, only to be sent immediately into the line. Before dawn on the 22nd, a force of *SS-panzergrenadiers* infiltrated into Les Tchéous. After daylight they, along with several tanks coming up the Spa road, attacked toward Borgoumont in a last desperate attempt to break the encirclement. Heavy and accurate artillery fire, along with that of a 90mm AA gun newly set up on the Roanne heights, forced them to withdraw, leaving behind a King Tiger and two Pz IVs. While this was happening, TF McGeorge made another push on La Gleize, but this attack also gained little and the task force found itself stalled along the Les Minières road. That night, the temperature dropped sharply and a rising breeze cleared the clouds and mist. The Luftwaffe attempted to drop supplies to Peiper, but most fell into American hands. On the morning of the 23rd, U.S. artillery fire increased even more in ferocity, leading the Germans to dub their position *der Kessel* ("the Cauldron"). An earlier-requested air strike failed to materialize, however, the planes instead mistakenly hitting Malmédy, killing a number of soldiers and civilians in the U.S.-held town.

When the terrific bombardment on La Gleize eased, the Americans attacked from all sides: TF McGeorge pushed west along the N.33 while the 90mm AA gun and Sherman tanks on the Roanne heights dueled with Tigers around the Wérimont farm; the GIs in Borgoumont, supported by mortar concentrations and a few Shermans, moved southwest; and TFs Harrison and Jordan attacked eastward and toward La Venne. The latter were quickly halted at the La Venne crossroads and by accurate fire from the Dinbeid and Les Montis heights—while elsewhere the Americans fared not much better, as the Germans threw every last able-bodied man into the fray. The fighting was furious, but the defenders frustrated every assault. Finally the attack was called off, and in its place was substituted another intense bombardment. Though his men had fought brilliantly, supplies of every kind were now almost totally exhausted, and amidst the deluge of artillery shells Peiper knew his position was no longer tenable. Around 1700 hours he received permission from *I. SS-Panzerkorps* to evacuate to the main German lines, though with the stipulation to bring out his heavy equipment. With virtually no fuel left, Peiper ignored this demand, and at about 0200 on the 24th he and some 800 of his men quietly abandoned the La Gleize defenses and walked south to La Venne. Left behind was a small rearguard to delay the Americans and destroy the remaining guns and vehicles. The sun rose to the sound of demolitions, and a renewed American attack met with minimal resistance instead of the expected desperate last stand. GIs cautiously entering the smoldering ruins of La Gleize liberated about 170 Americans and captured some 300 Germans, almost all of the latter too seriously wounded to have accompanied Peiper. Just before dawn on Christmas Day, Lt-Col. Peiper and about 770 others, almost asleep on their feet, reached the main force of *SS-Panzer Division 1*—a formation now effectively reduced to being armored in name only.

8.6 *REFIT PHASE (RePh):* The following steps (8.601-.625) are performed simultaneously by each side during the RePh, which occurs after each CG scenario. Each step (and sub-step) must be carried out in the numbered/lettered order given; those not applicable to the current situation may be omitted (e.g., if there are no Flames/Blazes on the map, skip RePh step 8.609). Those steps listed below preceded by "†" are the only steps to be completed before setting up to play a CG *Initial* Scenario. Those preceded by "‡" are performed only if, as per the result of Initiative Determination (8.623), a non-Initial CG scenario is to be played on the current CG Date. Those preceded by "§" are the only steps necessary to achieve CG-Scenario End after the last-Player-Turn CCPh. Those preceded by "*" are performed in repeated sequence until a new CG scenario is generated in RePh step 8.623.

RePh Sequence

§8.601 Conclusion of Melee
§8.602 Marker Removal
§8.603 Rally, Unloading, Victory Determination, & CG-LVP Totals
8.604 Encirclement, Minefields, Bog & Shock
8.605 Setup Area Determination
8.606 Escape
8.607 Equipment Possession & Hidden Fortifications
8.608 Prisoners
8.609 Extinguishing Flames & Blazes
8.610 Wounded Leaders
8.611 Battle Hardening & Promotion
*8.612 New CG Date & SAN Adjustment
*8.613 Shift
*8.614 Equipment Repair & Replenishment
*8.615 Fortification & Wreck Removal
*8.616 CPP Replenishment
*8.617 *KGP* Weather
†*8.618 German Ammunition Shortage
†*8.619 Purchasing Reinforcement Groups
†*8.620 RG Strength, Quality, Weapons & Leaders
†*8.621 Purchasing Fortifications
*8.622 Purchasing Reconnaissance
*8.623 Initiative Determination
‡8.624 Unit Setup
‡8.625 Scenario Commencement



8.601 *CONCLUSION OF MELEE:* First, each unit currently on a Climb marker must be placed in either the Location it was attempting to reach or the Location it left when it began to climb, at the owner's choice. If the Location the unit is placed in contains an enemy unit(s), mark them all with a *Melee* counter.

All opposing units in the same Locations are now assumed to be in *Melee*, and must undergo an (unlimited) number of Melee rounds until no more CC attacks can be made. Such units are free to perform any/all normal CCPh activities associated with Melee (i.e., attack, Capture attempts, Withdrawal, etc.; Ambush is NA). Consider the side that moved first in that scenario to be the ATTACKER. Following the conclusion of the *first* round of RePh Melee in a Location, each still-hidden/concealed unit therein is revealed, each pinned unit therein becomes unpinned, each CX counter is removed, each vehicle currently in Motion therein has its Motion counter removed, and each Stun counter on a vehicle therein is flipped over to its "+ff" side (the vehicle is still subject to Recall, if applicable, and may be marked as CE if so desired).

8.6011 *ORDER OF RESOLUTION:* Resolve all Melees in alphanumeric sequence (e.g., A1, then B16, then B35, then C19, etc.).

8.602 *MARKER REMOVAL:* All markers/counters listed below are removed from the map at this time (Right of Inspection does *not* apply to revealed stacks):

a) SR and FFE counters;
b) SMOKE counters;
c) Acquired counters;
d) Radios and Field Phones [EXC: if Retained; SSR CG22 (8.4)];
e) DM, Disrupted, Fanatic, Berserk, Wall Advantage and HD markers, Dummy stacks, Dummy Cloaking counters, and "?";
f) CX, Motion, CE, BU and Labor markers;
g) All hidden/Cloaked units, entrenchments and Equipment are placed on-map in their setup Location[14] (other still-hidden Fortifications need not be revealed at this time);
h) Sniper counters;
i) FB counters (see also SSR CG22; 8.4).

8.603 *RALLY, UNLOADING, VICTORY DETERMINATION, & CG-LVP TOTALS*

8.6031 *RALLY & UNLOADING:* All currently broken units of both sides automatically rally, even if Disrupted. No DR are made. All Passenger/Rider Personnel and Equipment are then unloaded into their vehicle's Location (a unit unloading into an A-P minefield is not immediately attacked, but 8.6042 will apply). All Guns hooked up and in tow remain so (for now—see SSR CG12 [8.4]); if its vehicle is Eliminated in the RePh, so is the Gun that is being towed. When step 8.6031 has been completed, CG-Scenario End has occurred.

8.6032 *CG-SCENARIO VICTORY DETERMINATION:* Final hex/building Control and Casualty-VP/Current-LVP totals are now determined, and the winner of the just-completed CG scenario is determined as per 8.6234 or 8.51-.53 as applicable. Units/Equipment Eliminated in the RePh *after* CG-Scenario End never count for CG-scenario Victory Determination (nor for MMC Battle Hardening DRM; 8.6113) [EXC: prisoners count for Casualty VP purposes as per A26.21]. On its CG Roster, each side records its Current-LVP Total in the upper half of the "LVP" column, and the winning side in the "Win" column, on the line for the current CG Date.

8.6033 *NEW CG-LVP TOTALS:* Each side now calculates its new CG-LVP Total by adding its Current-LVP Total to its preceding CG Date's CG-LVP Total, and records this number below its Current-LVP Total on its CG Roster. The total LVP value of each Map Group is:

Stoumont: 52 Cheneux: 14 La Gleize: 34

EX: If the Americans end the CG I Initial Scenario Controlling Locations worth 10 LVP, their Current-LVP *and* CG-LVP Totals for that CG Date are "10". If at the next CG-Scenario End, on 19 Dec PM, they Control additional Locations worth 5 LVP without having lost any of those they Controlled at scenario start, their new Current-LVP Total is "15" and their new CG-LVP Total is "25" (15 + 10). If on 19 Dec N at the next CG-Scenario End their Current-LVP Total has dropped to "12", their CG-LVP Total will then be "37" (12 + 25).

8.604 *ENCIRCLEMENT, MINEFIELDS, BOG & SHOCK*

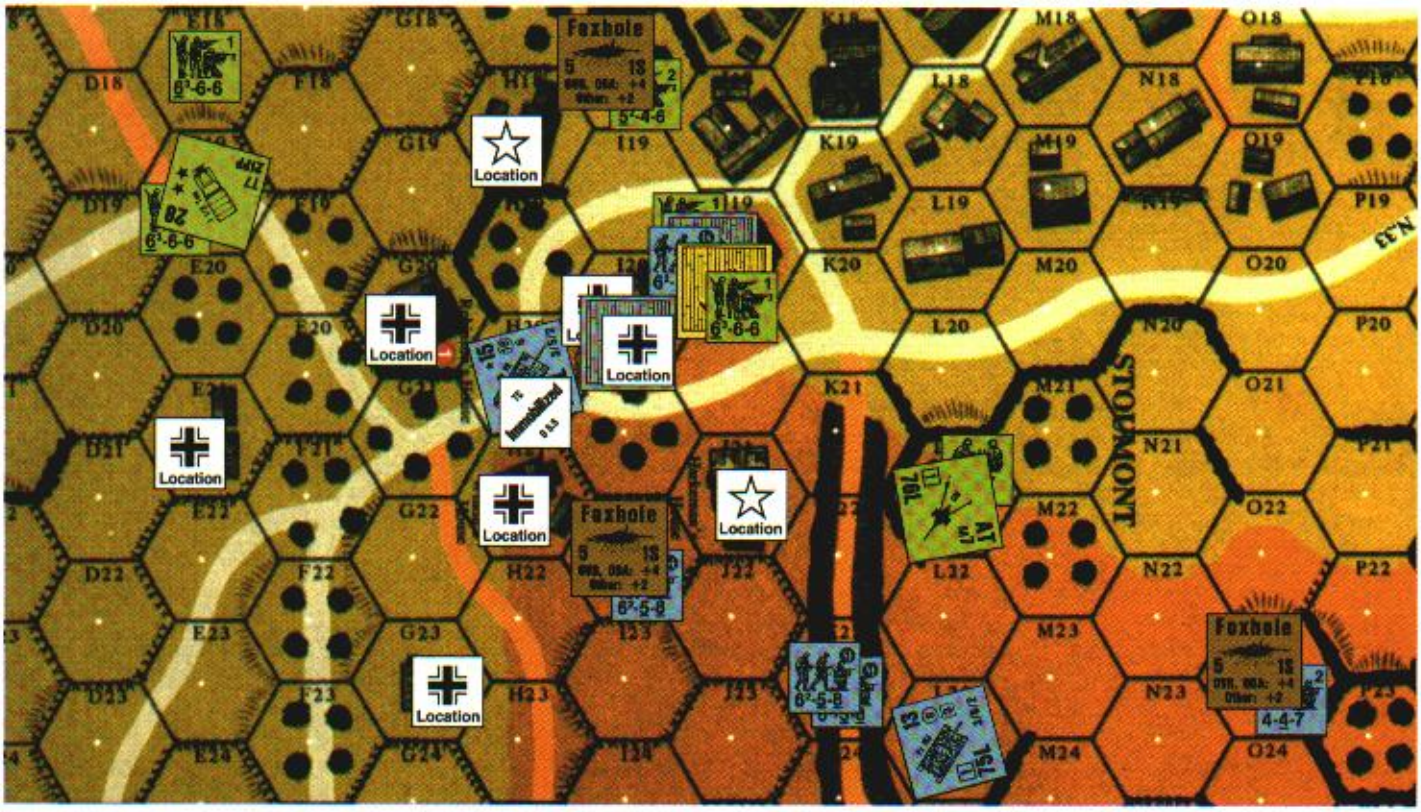


8.6041 *ENCIRCLEMENT:* Each Encircled unit [EXC: prisoner] must take a separate 1TC (leader's DRM can apply). If it passes its 1TC, it remains in its present Location (Encircled markers are not removed until 8.6062). Failing the 1TC results in the unit's immediate Elimination [EXC: the Encircled Vulnerable PRC of an Immobile vehicle are Eliminated, leaving the vehicle abandoned]. Each prisoner that an Eliminated Encircled unit was Guarding must if possible be claimed by another unit in that Location friendly to the Eliminated unit. If the prisoner is not claimed, it is considered Rearmed (A20.551) and may automatically possess any Equipment dropped by its Eliminated Guard. Otherwise, any Equipment that an Eliminated Encircled unit possessed is left in the Location unpossessed.





8.6042 *MINEFIELDS:* Each Mobile vehicle (and its Vulnerable Inherent crew, if required; B28.43) in any type of minefield undergoes the appropriate type(s) of mine attack(s), fully resolved in the normal manner, as if it is attempting to exit the minefield Location [EXC: if the crew breaks, it is unloaded in *Good Order* into the minefield's Location]. Each Infantry unit in an A-P minefield *hex* (including a crew that just unloaded due to a minefield attack) must take a NTC (leader's DRM can apply); failure of the TC causes Casualty Reduction. [EXC to both: A unit theoretically able to exit the minefield *hex* without being attacked by the mines *and* without having to enter a minefield/enemy-Controlled Location need not take the NTC.] In all cases, each surviving unit must remain in its respective Location in that minefield hex until its Setup Area is determined in 8.605-.606.





EX: These illustrations show a portion of the Stoumont Map Group at the end of a CG scenario and how the Setup Areas, No-Man's-Land and Uncontrolled-Territory hexes have been marked; see 8.605-.6054 and "MARKING THE MAP" above 8.6054. Strategic-Location Control is indicated by a solid-colored line (red for U.S., blue for German; where feasible, units have been removed from Strategic Locations for the sake of clarity). Each player has marked his own allowed Setup Area(s) for the next CG scenario with dashed lines of the matching color; e.g., the two German Setup Areas comprise those hexes within the blue dashed- *and* solid-line areas. By comparing the proximity of opposing-Controlled Strategic Locations, players have also highlighted all No-Man's-Land (8.6051) hexes in yellow. Hexes neither enclosed by a colored line nor shaded yellow are Uncontrolled Territory (8.6053).

The U.S. Setup Area includes all Strategic Locations outlined in red, as well as all hexes enclosed by the red dashed lines (non-Strategic Locations within two hexes of a friendly-Controlled Strategic Location but *not* within two hexes of an enemy-Controlled Strategic Location). The German Setup Area has been likewise marked in blue.

Note that both sides Control ≥ one Location in hex J19 (the St. Hubert church's Steeple hex), putting that hex within each side's Setup Area A. The ground-level and second-level-Steeple (5.2) Locations are in the U.S. Setup Area. With the first-level Location being German Controlled, the U.S. unit in the Steeple is Isolated since it lacks the required path to a friendly-Controlled, non-Isolated, non-Blazing, ground-level building Location (8.6057). The German unit in that first-level Location is *not* Isolated, because it *can* trace such a path (through I20's first level, thence to ground level in that hex). However, if there was no immobilized German vehicle with functioning MA of ≥ 20mm in H20, all German-Controlled Locations of the church would be Isolated because H20 would then be a No-Man's-Land hex (since it would be a non-Strategic Location within two hexes of both German- *and* U.S.-Controlled Strategic Locations).

The U.S.-Controlled J21 Strategic Location is Isolated since it is surrounded by hexes that are either No-Man's-Land or German-Controlled Strategic Locations. The U.S. Gun in L21 is not Isolated, as it is not thusly surrounded.

SHOCK MC 1-2: OK 3-6: flag

8.6043 *SHOCK/UK:* Each Shocked/UK AFV must undergo ≥ one recuperation attempt (C7.42) until either the marker is removed or the AFV is Eliminated.

BOG DR >12

8.6044 *BOGGED/MIRED:* Each non-abandoned, bogged/mired vehicle must undergo ≥ one Bog Removal attempt (D8.3) until it is either unbogged or immobilized (MP expenditure is immaterial). If Vehicle Note L applies to the vehicle, one squad-equivalent (as explained in the Note) in its Setup Area may be used to claim a –2 (–1 per crew or HS) drm to the colored dr of its Bog Removal DR. Every non-captured, bogged/mired U.S.-color vehicle in a U.S. setup Area but not in a Front-Line Hex receives a –1 drm.[15]

8.605 *SETUP AREA DETERMINATION:* Each side now determines its Setup Area(s) for the next CG scenario. If a side Controls *no* non-Isolated Strategic Location on the Map Group, all of its currently on-map Personnel/Mobile-vehicle units in Uncontrolled Territory on that Map Group must be Retained into a Holding Box (8.6053), while such units in enemy Setup-Area hexes must attempt Escape (8.606).

Location ◊ Location

Each side may, at any time during/after a CG scenario, place a friendly Location Control marker (supplied in the *KGP I* counter mix) in a Strategic Location that it currently Controls, especially if that Location's Control might become disputed at some later point. A Control marker must be removed (or flipped over) if the Controlling side loses Control of that Location. A non-Strategic Location may still be Controlled (as per A26.11-.12), but does not receive a Control marker.

A Setup Area may currently contain no units, but can still have friendly units Shifted into it unless it is Isolated.

8.6051 *NO MAN'S LAND:* As each side determines its Setup Area(s), there will be portions of the map where two opposing Setup Areas "overlap". A *non-Strategic Location* within two hexes of both friendly- *and* enemy-Controlled Strategic Locations is a No-Man's-Land hex. A No-Man's-Land hex can *never* be part of a Setup Area. A Strategic Location can never be No Man's Land (though it can be Isolated). Each manned, Immobile vehicle without functioning MA (or whose functioning non-FT MA is < 20mm) in No Man's Land becomes abandoned, and its crew (if any) must attempt Escape as per 8.606. See also 8.6056 and 8.6072.

8.6052 *ISOLATED UNIT:* An Isolated unit/Weapon is one in a friendly-Setup-Area Location from which that unit (or, for a Weapon only, a hypothetical Infantry MMC) would be *unable* to trace a path of contiguous, Enterable, Uncontrolled-Territory/friendly-Setup-Area Locations to an Eligible *Entry* Area. [EXC: On the "Lg" (only) Map Group, the *German* path must instead be traced to Location LgN25 ("Peiper's HQ"). Should that (or any such subsequently designated "HQ") Location become U.S.-Controlled, the German must, as part of step 8.6052 and before determining Isolated units/Weapons, record some other *secret* "HQ" Location (using any ground-level building level of his choice) on that Map Group.] See 8.6057 for upper-building-level Isolation, 8.606 for Escape requirements, 8.6241 for setup restrictions and penalties, and SSR CG17 (8.4). See also 8.6056.

- **8.6053** *UNCONTROLLED TERRITORY:* Uncontrolled Territory refers collectively to all hexes that are neither No-Man's-Land nor part of either side's Setup Area (i.e., ≥ three hexes from all Controlled Strategic Locations). Each Personnel/-Mobile-vehicle unit (and its portaged/possessed/towed Equipment) in an Uncontrolled-Territory hex at scenario end is Retained into the nearest (along the shortest path of contiguous, Enterable, Uncontrolled-Territory hexes) friendly Setup Area (even if Isolated) or Eligible Entry Area (Holding Box); unit's owner's

choice of Area if equidistant. Each Personnel/Mobile-vehicle unit unable to trace such a path is required to attempt Escape (8.606). Each Immobile vehicle without functioning MA (or whose functioning non-FT MA is < 20mm) becomes abandoned, and its crew (if any) is then either Retained (if it can trace such a path) or required to attempt Escape. See also 8.6056 and 8.6072.

8.6054 *SURROUNDED HEXES:* Each Uncontrolled-Territory, and each *unoccupied* Strategic, Location that is currently *completely* enclosed within a Setup Area of only one side becomes part of that Setup Area [EXC: a Location vacated later due to the Escape of an enemy unit; 8.6131].

8.6055 *IN FRIENDLY SETUP AREA:* Each unit/Equipment currently in a friendly Setup Area is Retained therein.

IMPORTANT: Each Gun must (for now; see SSR CG12 [8.4] and 8.613) remain in its *current* Location, due to setup restrictions.

8.6056 *NOT IN FRIENDLY SETUP AREA:* Use the following chart to determine what happens to on-map units/Equipment that do *not* end a CG scenario non-Isolated inside a friendly Setup Area. Note, however, that the actions listed are to be implemented in their proper RePh order (8.6).

MARKING THE MAP: *Included in the* KGP *modules is a reduced-size map of each* KGP *Map Group. Each side should now record its Setup Area(s) on a new photocopy of the respective reduced-size map. Both sides outline (using different color pens, but on the* same *photocopy) each Strategic Location Controlled by them. Other Strategic Locations can be marked by an appropriate letter inside a square; e.g., "E" for Entrenchment, "F" for Fortification, "G" for a functioning Gun, "V" for a manned, Immobile vehicle with functioning MA of ≥ 20mm or functioning FT MA . See the illustration and example on page P12.*

Once all Strategic Locations have been indicated, mark all No-Man's-Land hexes using another color (suggestion: a yellow "highlighter"). Next, each side draws its Setup-Area boundaries, enclosing all non-Strategic Locations within two hexes of each friendly-Controlled Strategic Location (excluding No Man's Land).

After all Setup Areas have been determined, each side should record (on the reduced-size map) an ID for each one. Subsequent changes in the status of (potential) Strategic Locations (e.g., Blazing wooden rubble turned to shellholes [8.6092], a manned, immobilized vehicle with functioning MA of ≥ 20mm that becomes Mobile [8.6141b], etc.) do not alter or otherwise affect either side's Setup Area(s) in any way; once all Setup Areas have been correctly marked, they remain thus until the start *of the next CG scenario.*

Personnel/Mobile-Vehicle:	
in enemy Setup Area	must attempt Escape (8.606)
in No Man's Land	must attempt Escape (8.606)
in Uncontrolled Territory	is Retained into the nearest friendly-Setup/Eligible-Entry Area or must attempt Escape (8.6053)
if Isolated	may attempt Escape or remain in place [EXC: if Overstacked]; 8.606
Abandoned (but otherwise Mobile) Vehicle—or Unpossessed Non-Vehicle Equipment other than Functioning Gun:	
in enemy Setup Area	is Captured or Eliminated (enemy's choice; 8.6071)*
in No Man's Land	is left in place unpossessed (8.6072)
in Uncontrolled Territory	is left in place unpossessed (8.6072)
if Isolated	is Retained by the Controlling side (8.6071)
Crewed, Immobile Vehicle *without* Functioning MA (or with Functioning non-FT MA of < 20mm):	
in enemy Setup Area	is Captured or Eliminated (enemy's choice; 8.6071)*
in No Man's Land	is Abandoned; the crew (if any) must attempt Escape (8.6051)†
in Uncontrolled Territory	is Abandoned (8.6053); the crew (if any) is Retained into the nearest friendly-Setup/Eligible-Entry Area or must attempt Escape (8.6053)†
if Isolated	is Retained by the Controlling side (8.6071)
Crewed, Immobile Vehicle *with* Functioning MA of ≥ 20mm (or FT)—or Functioning Gun:	
in Bypass of enemy-Controlled Strat. Loc.	is Captured or Eliminated (enemy's choice; 8.6071)*
in any other Location	becomes a Strategic Location

* Capturing/Eliminating side may Remove/attempt-to-Scrounge allowed Weapon(s) and/or turn vehicle into (Burnt-Out) Wreck.

† Abandoning crew may Remove allowed Weapon(s) and/or turn vehicle into (Burnt-Out) Wreck.



8.6057 *UPPER-LEVEL ISOLATION:* Any Infantry/Weapon in an upper-level building Location is not Isolated if a path (of ≥ one contiguous, Enterable, friendly-Controlled building Location) exists to a friendly-Controlled, non-Blazing, non-Isolated ground-level building Location. Such Infantry/Weapon(s) are Retained in the Setup Area the path is traced to. If such a path cannot be traced, the Infantry/Weapon is Isolated (see 8.6052 and 8.6241).

8.606 *ESCAPE:* Each Personnel/Mobile-vehicle unit ending a scenario in No Man's Land, or in an enemy Setup Area, or in Uncontrolled Territory from which it is required to attempt Escape (8.6053), *must* attempt Escape. Each Personnel/-Mobile-vehicle unit ending a scenario Isolated *may* attempt Escape [EXC: each such Isolated, Overstacked unit must attempt Escape (or be freely moved to another Location within that *same* Isolated Setup Area) until the Location is not Overstacked]. If > one *Personnel* unit in the same Location wishes to Escape, they may combine into one or more stacks; each stack then makes its own DR on the Escape table. When attempting to Escape, each MMC may portage ≤ five PP, and each SMC may portage ≤ two PP [EXC: a wounded SMC can portage nothing]. Each squad stacked with a leader may freely Deploy. Prior to its possessor's Escape attempt, each SW/Gun may (must, if the unit exceeds its allowed portage limit) be dropped or freely Eliminated/Transferred/dismantled-if-possible. A non-dm Gun can Escape only if already hooked up to an Escaping vehicle.

ESCAPE TABLE

Final DR	Infantry	Mobile Vehicle
≤ 8	Escapes[1]	Escapes
9	Escapes; Replaced[2,3]	Abandoned;[4,5] crew (if any) Escapes
10	Escapes; Casualty Reduced[3]	Eliminated;[5] crew (if any) Escapes
11	Escapes; Replaced, then Casualty Reduced[2,3]	Abandoned;[5] crew (if any) is Eliminated
≥ 12	All units and Equipment Eliminated	Eliminated; crew (if any) is Eliminated

[1] An Original 2 DR results in Escape and Heat of Battle for an eligible unit (A15.); use Random Selection to determine the unit(s) affected in a stack. [EXC: Any result other than Hero-Creation/Battle-Hardening results in Elimination of the unit(s).]

[2] A crew, or unit that would become Disrupted, is Eliminated instead.

[3] Use Random Selection for a stack.

[4] The surviving crew (if any) may turn the vehicle into a (Burnt-Out) Wreck.

[5] In current hex and VCA; the surviving crew (if any) may attempt to Scrounge the vehicle/Wreck.

[6] The surviving crew (if any) may attempt to Scrounge the vehicle prior to its Elimination.

DRM:

−1 If lone, unwounded SMC

−1 If an OT AFV

−2 If a CT AFV

−1 If current CG Date is Night

−2 If adjacent to a Friendly Setup Area. −1 If two hexes away from a Friendly Setup Area.

+x (Armor-)Leader/Hero DRM (NA to Personnel Leader/Hero if alone)

+y Total Stun DRM (D5.34; SSR KGP12) currently applicable to vehicle's Inherent crew

+1 If in enemy Setup Area, *or* if it must trace a path through ≥ one enemy Setup-Area hex to intended area of Retention

+1 Per HS-equivalent > one HS using the same Escape DR*

+1 Per PP > IPC being carried (unit with most excess PP determines this DRM for a stack (a stacked leader may combine to increase a MMC's IPC)*

+1 If unarmed

+1 If a Captured vehicle

+2 If Encircled*

+2 If Isolated

* NA to vehicle Escape attempt.

8.6061 *ESCAPE RESULTS:* If a unit survives the Escape attempt, it and all Equipment it took with it are Retained into a friendly Setup Area or Eligible Entry Area—whichever is nearest in a path of contiguous, Enterable, Uncontrolled-Territory/enemy-Setup-Area Locations (Escapee's choice if ≥ two such Areas are equidistant, but always using as few enemy Setup-Area Locations as possible). A U.S. unit that Escapes to an Eligible Entry Area may subsequently enter play at that Entry Area even if its Entry Code color (8.6197) does not match the (partial) background color of that Entry Area's center (arrow) hex.

If a unit is Eliminated by the Escape attempt, all Equipment it took with it is Eliminated on a subsequent dr of ≥ 4; on a dr of ≤ 3 the Equipment is left in the Eliminated unit's last-occupied Location. See also 8.6131.

EX: See the illustration on page P12. The U.S. squad in Uncontrolled-Territory hex E18 is freely relocated into any Location of the U.S. Setup Area. The U.S. squad and Mobile truck in German Setup Area A must attempt Escape. The U.S. player must roll for each attempt separately, and rolls an Original 6 and 7 respectively. The squad successfully Escapes on a Final DR of 8 (+1 DRM for being "in an enemy Setup Area" and +1 "per HS-equivalent > one HS using the same Escape DR"), and is relocated into the nearest U.S. Setup Area. The truck's DR, a Final 9 since it is both unarmed and in an enemy Setup Area, results in "Abandoned; crew Escapes". However, since an unarmed truck has no crew, it is simply left in place, marked by an Abandoned counter. In RePh step 8.6071 the German Retains the truck as Captured, and may even use it (as one of the three vehicles required) to "gas up" a same-Setup-Area Out-of-Gas vehicle (8.6141c). The Mobile German tank in U.S.-Setup-Area hex L23 and the two German squads in No-Man's-Land hex K23 must also attempt Escape. The tank successfully Escapes on a Final DR of 7 and is Retained into German Setup Area B. The squads roll an Original 8 and 10 respectively for their Escape

DR; since both DR are modified by +1 ("per HS-equivalent > one HS using the same Escape DR"), the Final DR of 9 and 11 result in one squad being Replaced by two 3-4-8 HS and the other Replaced and then Casualty Reduced (one 3-4-8). Thus three 3-4-8s are added to the units Retained in either German Setup Area shown, since the closest hex of each is three Uncontrolled-Territory hexes from K23. The Isolated U.S. squad in the 319 Steeple Location must attempt to Escape (due to being Overstacked; 5.21), and will have a +3 Escape DRM (+1 per HS-equivalent > one HS using the same Escape DR, and +2 for being Isolated). Despite being vacant, that Location will still be U.S.-Controlled at the start of the next scenario (8.6131). If the squad in the steeple had been a HS instead, it could have opted to remain in place (and 8.6241 would have applied to it).



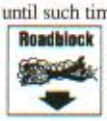
8.6062 *ENCIRCLED-MARKER REMOVAL:* All Encircled markers are now removed.

8.607 *EQUIPMENT POSSESSION & HIDDEN FORTIFICATIONS*

8.6071 *IN SETUP AREA:* Each piece of Equipment in a setup Area is Retained (as Captured, if applicable) therein by the side Controlling that Setup Area. At its (new) owner's option, each such non-vehicle piece may be Eliminated by any Personnel (even an Abandoning crew) Retained in that Setup Area, and each such vehicle may be Abandoned, etc. exactly as per 8.6145. The Inherent crew of each now-Captured Immobile vehicle with no functioning MA is also Captured. Each unpossessed/abandoned Equipment piece in a Setup Area may remain unpossessed/abandoned (in which case it retains its present CA), or may be automatically repossessed/remanned and operated (as per A21.11-.13, A21.21-22, D5.42 or D6.631) by Personnel Retained in that Setup Area. Each Immobile vehicle must remain in its present Location and VCA until such time as it becomes Mobile.

8.6072 *NOT IN SETUP AREA:* All unpossessed/abandoned Equipment in No Man's Land or Uncontrolled Territory must remain in its present Location (and vehicular/Gun CA) until Eliminated or repossessed/remanned in (or after; 8.6071) a subsequent scenario. Each Immobile vehicle must remain in its present Location and VCA until such time as it becomes Mobile.





8.6073 *HIDDEN FORTIFICATIONS:* Each still-hidden Fortification within a Setup Area of the purchaser's opponent is placed on-map. Each such minefield is marked by placing a Known Minefield counter as per 7.1 to reveal its presence but not its strength/type. Each on-map Fortification (i.e., from previous CG scenarios) is Controlled by the side (if any) Controlling its Location.



8.608 *PRISONERS:* Each prisoner Guarded by a non-Isolated unit is Eliminated.[16] An Isolated Guard may retain possession of his prisoner(s), freely transfer them to another friendly unit (capable of being a Guard) in the same Isolated Area, Massacre them (see SSR CG4; 8.4), or free them. If freed, a prisoner is automatically Retained (by the side friendly to it) into the nearest (in the shortest path of contiguous, Enterable Locations) friendly-Set-up/Eligible-Entry Area (of the Unarmed-unit side's choice if ≥ two such Areas are equidistant). An unarmed MMC is Replaced by a friendly Conscript (Green if U.S.) MMC of the same size; a freed SMC is Replaced by his original SMC type (if unknown, replace him with a 6+1 leader).





8.609 *EXTINGUISHING FLAMES & BLAZES:* Each building/rubble Location currently marked with a Flame/Blaze counter is considered fully consumed by the fire. Players must remove each Flame/Blaze counter and make the appropriate terrain alterations when performing the following sub-steps (8.6091-.6095):



8.6091 *BURNING WRECK:* Each Burning Wreck has its Blaze marker removed [EXC: if that Wreck is in a building/rubble hex, move the Blaze marker to the building/rubble so that it is now a terrain Blaze]. Replace the wreck with a Burnt-Out Wreck.



8.6092 *WOODEN RUBBLE:* Remove both the Rubble *and* Flame/-Blaze marker, and place a Shellhole counter in the Location. All other previous terrain in the Location is eliminated (each vehicle/-wreck in the Location becomes/remains a Burnt-Out Wreck).



8.6093 *STONE RUBBLE:* Remove the Flame/Blaze marker. The stone rubble still exists (each vehicle/wreck in the Location becomes/remains a Burnt-Out Wreck), and the Location may catch Fire again in a later scenario.

8.6094 *BUILDING:* Place the correct Rubble counter in all ground-level Locations of each building that has at least one Flame/Blaze in any of its Locations, removing each Flame/Blaze marker. Such rubble may catch Fire again in a later scenario.

8.6095 *ELIMINATIONS:* All Fortifications/Equipment in what were (as per 8.6092-.6094) building/rubble Flame/Blaze Locations (including all building Locations just rubbled as per 8.6094) are Eliminated. All (Burnt-Out) Wrecks in buildings just rubbled as per 8.6094 are Eliminated. All Isolated units/-Equipment that would have been confined to setting up in Locations (/rubbled-buildings; 8.6094) from which a terrain Flame/Blaze has just been removed are Eliminated.



8.610 *WOUNDED LEADERS:* Each side makes a dr on the following table for each currently wounded Retained leader:

WOUNDED LEADER TABLE

Final dr	Result
≤ 1	Retained unwounded
2-3	Retained wounded
≥ 4	Eliminated (evacuated)

drm:
−1 If German
−1 If Heroic
+1 If Isolated

8.611 *BATTLE HARDENING & PROMOTION*

● **8.6111** *(RE)COMBINING:* All Retained same-class HS with the same Strength Factors within the same Setup/Entry Area must now Recombine (A1.32) so that no more than one of each HS type is Retained in that Area [EXC: each side may Retain one HS per Retained (.50-cal) HMG, and the U.S. side may Retain one HS per Retained 60mm mortar, counter in that Setup/Entry Area even if that SW is currently malfunctioned].





8.6112 *VEHICLE-CREW COMBINING:* A side Retaining ≥ two vehicle-crews currently marked with a "+#" (Stun) counter (see also SSR KGP12) as *Infantry* in the same Setup/Entry Area must Eliminate all but one such unit within each such Area. However, for every *two* so Eliminated per Area, one vehicle-crew *not* marked with a "+#" (Stun) counter is added as Infantry to that Area.[17]

EX: The German player has three 1-2-7 vehicle-crews Retained as Infantry in the same friendly Setup Area. One is marked with a "+1" (Stun) counter, and the other two with a "+2" (Stun). In RePh step 8.6112 the German player must eliminate *any* two of those crews and replace them with a single 1-2-7 crew not marked with a "+#" (Stun) counter.





8.6113 *HEROES & MMC:* On each side, each Retained hero [EXC: leader; 8.6114] is Eliminated; however, each such Elimination enables that side to Battle Harden one non-crew MMC of the owner's choice within the same Setup/Entry Area as that hero [EXC: if unable to so Battle Harden a MMC in that Area, the hero is Retained]. Each side also makes one Secret DR to determine the number of Retained non-crew MMC eligible for Battle Hardening. In all cases, an Elite non-crew MMC that Battle Hardens becomes Fanatic (but only for the duration of the next scenario; 8.602e). No MMC may Battle Harden > once per RePh.

MMC BATTLE HARDENING TABLE†

Final DR	# of MMC
≤ −1	5
0	4
1	3
2-3	2
4-5	1
≥ 6	–

DRM:
−2 Friendly side won this CG Date's scenario
−1 Per 25 Casualty VP amassed by friendly side on the current CG Date [EXC: see 8.6032]

† Crews are ineligible





8.6114 *LEADERS:* On each side, each Retained *heroic* leader Battle Hardens and loses his heroic status [EXC: a heroic 10-3 loses his heroic status with no additional effect]. Each side also makes one Secret DR on the following table [EXC: 8.6115] to Battle Harden a Retained Personnel leader. If the leader selected is not currently Retained by that side, the player must Battle Harden his lowest-grade, non-wounded Retained Personnel leader.

LEADER BATTLE HARDENING TABLE†

Final DR	Type‡
≤ 2	10-2
3	9-2
4	9-1
5	8-1
6-7	8-0
8-9	7-0
≥ 10	6+1

DRM:
−2 Friendly side won this CG Date's scenario (the player may, after the DR, choose to ignore this DRM or apply only a −1 DRM)

† Or may create a 7-0 (8.6115)
‡ Armor leader NA

8.6115 *PROMOTION OUT OF THE RANKS:* In lieu of making a DR on the 8.6114 Table, the player may instead automatically create one 7-0 leader.

8.612 *NEW CG DATE & SAN ADJUSTMENT*

8.6121 *NEW CG DATE:* Each passage of this RePh step represents the start of a new CG Date. Should no scenario be generated (8.623), players return to this step and repeat steps 8.6121-.623 until one is.





8.6122 *SAN ADJUSTMENT:* Each side whose SAN is currently ≥ 4 must make a dr, with a +drm equal to that side's current SAN minus four. A Final dr of ≥ 5 immediately reduces that side's current SAN by *two*. Each side whose SAN is currently < 2 has it automatically raised to 2 (no CPP expenditure necessary).

EX: The U.S. SAN is currently 6. Due to the +2 drm (6 − 4 = 2) to the U.S. Sniper adjustment dr, an Original dr of ≥ 3 will lower the U.S. SAN to 4.



8.613 *SHIFT:* A Personnel/Mobile-vehicle unit (or group of such) Retained in a *Setup* Area may attempt to Shift to another friendly Setup Area, or Eligible Entry Area, of that Map Group [EXC: in CG II, no German vehicle may Shift *to* an *Entry* Area]. A Personnel/Mobile-vehicle unit (or group of such) Retained in an *Entry* Area may attempt to Shift to the next Eligible Entry Area along the edge of, or to a non-Isolated friendly Setup Area on, that Map Group. A unit/group that wishes to Shift *from a Setup Area* must be able to trace a path (of any length) of contiguous, Enterable (by *all* units of the Shifting group), Uncontrolled-Territory/-friendly-Setup-Area/Eligible-Entry-Area hexes from any friendly-Controlled hex of that Setup Area to any hex of the Area to which it is attempting to Shift.

Each MMC may portage ≤ five PP, and each SMC may portage ≤ two PP [EXC: a wounded SMC can portage nothing]. Prior to its possessor's Shift (attempt), each SW/Gun may (must, if the unit exceeds its allowed portage limit) be dropped or freely Eliminated/Transferred/dismantled-if-possible. A non-dm Gun can be Shifted only if already hooked up to a Shifting vehicle. Each squad stacked with a leader may freely Deploy.

Make a separate Secret DR on the following table for each unit/group attempting to Shift [EXC: no DR is required if a unit/group Retained in a Setup Area wishes to Shift to an Eligible Entry Area that is part-of/adjacent-to that Setup Area; i.e., such a Shift is automatically successful]. Only one Shift attempt may be made per unit/group per CG Date, and all units attempting to Shift from the same, and to the same new, Entry or Setup Area must do so as a single group. A unit/-group that successfully Shifts to an Entry Area is placed in the unshaded portion of that Area's Holding Box. A U.S. unit/group that Shifts to an Eligible Entry Area may subsequently enter play at that Entry Area even if its Entry Code color (8.6197) does not match the (partial) background color of that Entry Area's center (arrow) hex.

SHIFT TABLE

Final DR	Result
≤ 8	Shifted safely
9-10	No Shift*
11	Shifted with Casualties†
≥ 12	All units, Inherent crews and Equipment Eliminated

DRM:
−1 If that entire path can be traced on *road* hexes‡
+1 Per every five Uncontrolled-Territory hexes along that path between the current Setup/-Entry Area and the desired new Setup/-Entry Area‡

* Unit/group cannot Shift (the orders were not received or could not be carried out). It may not attempt to Shift again until the next CG Date, and must remain in its current Holding Box (if Retained off-map) or Setup Area (if Retained on-map), though it may participate normally in the next CG scenario.

† Each Personnel unit suffers Casualty Reduction on a subsequent dr of ≥ 4. Each vehicle is Eliminated on a subsequent dr of ≥ 5; if it is Eliminated, make a CS DR for its Inherent crew (if any; Casualty Reduction is NA). Roll separately for each unit.

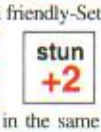
‡ Not applicable to a Shift from one Entry Area to another.

8.6131 *VACATED SETUP AREA:* If the last unit in a friendly Setup Area is Eliminated or successfully Escapes/Shifts elsewhere, each Location of that Setup Area remains Controlled by the last Controlling (i.e., by the vacating) side.[18] [EXC: The German must be informed if all Retained, on-map U.S. units on a Map Group are Eliminated or successfully Escape/Shift to (a) Holding Box(es). In such a case the Germans immediately gain Control of all Strategic Locations on that Map Group, and may automatically include them within their Setup Area for the next CG scenario. See also 8.6095.]

8.614 *EQUIPMENT REPAIR & REPLENISHMENT*

8.6141 *VEHICLES:* Each side performs the applicable step(s) below for each vehicle in a friendly-Setup/Eligible-Entry Area.







a) STUNNED/ABANDONED: A side Retaining ≥ two Inherent crews currently marked with a "+#" (Stun) counter (see also SSR KGP12) in the same Setup or Entry Area may Eliminate ≥ one of those crews. For every *two* so Eliminated per Area, one vehicle-crew *not* marked with a "+#" (Stun) counter is added as Infantry to that Area. Each abandoned vehicle may remain abandoned, or may be remanned and operated (as per A21.22 or D5.42/-D6.631) by Personnel (including each just-created vehicle-crew) Retained within the same Setup Area.



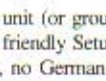
b) IMMOBILIZATION REPAIR: Each non-captured, non-abandoned, immobilized vehicle that is *not* Out of Gas must make a dr on the following table to determine if the immobilization is repaired:

IMMOBILIZATION REMOVAL TABLE

Final dr	Effect
≤ 2	Becomes Mobile*
≥ 3	No change

drm:
+x Per armor leader DRM
+1 If only Non-Qualified Use (A21.13) possible
+1 If in a Front-Line Hex
+1 If Isolated
+1 If German

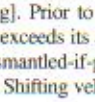
* And is Retained in its current Setup Area.



c) GERMAN GAS SIPHONING: For each *three* vehicles/wrecks (including any captured U.S. vehicle[s]) that are neither Out of Gas nor Burnt-Out but that are retained in the same German Setup Area and are now voluntarily marked by the German player as being Out of Gas (SSR KGP13), the German may "refuel" one currently Out-of-Gas vehicle within that same Setup Area [EXC: PSW 234/2 (/their non-Burnt-Out Wrecks) may be used to refuel only other such PSW and M10 TD and vice-versa]. Each otherwise-Mobile vehicle now marked as Out of Gas may be placed in any Enterable (by that vehicle) Location [EXC: not in a building] within its Setup Area. He may then replace any/all of those now-Out-of-Gas vehicles with one Burnt-Out Wreck apiece.

If the current CG Date is Dec 22 N, the German may make a Secret dr and automatically refuel a number of currently Out-of-Gas vehicles [EXC: PSW 234/2 and U.S. M10 TD] equal to that dr.[20]

A refuelled vehicle need not make its first otherwise-required Out-of-Gas DR.



d) U.S. AFV RECALL: Each Mobile, non-Isolated Retained U.S. AFV under Recall is Eliminated. If Mobile, under Recall and Isolated, such an AFV begins the next scenario under Recall (as well as suffering from Ammunition Shortage; 8.6241).

8.6142 WEAPON REPAIR: Each side now makes a separate dr on the table below for each malfunctioned, non-captured Retained Weapon in each friendly Setup/Entry Area that contains Personnel (or, for a vehicular Weapon, an Inherent crew in that vehicle).

WEAPON REPAIR TABLE†

Final dr	Effect
≤ 2	Repaired
≥ 3	Eliminated‡

drm:
−2 If vehicular-mounted
−1 If U.S.
+1 If only Non-Qualified Use (A21.13) possible
+1 If Isolated
+1 If German *and* suffering from Ammunition Shortage

† Captured Weapon NA.

‡ If vehicular-mounted, the Weapon is disabled; if MA, the AFV is immediately Recalled (8.6141d applies) [EXC: see SSR KGP12].

8.61421 *BAZ/PSK/FT/DC:* Each player makes a separate dr for each SCW, FT (*including vehicular-mounted FT*) and DC of his nationality that was eliminated (by any means) in the previous scenario. If the Final dr is ≤ 4, that SW is Retained in functioning order. Each dr made for a German SW receives a +1 drm, and an additional +1 drm if Ammunition Shortage (8.618) is already in effect. Each SW so Retained may be added to any friendly Entry/non-Isolated-Setup Area in which the current ratio of Squad counters to such SW counters is > 4:1 [EXC: > 2:1 for DC; ignore all engineer squad counters when determining the ratio for SCW; ignore all non-engineer squad counters when determining the ratio for FT/DC; no SW may be added if it would lower the ratio in that Setup/Entry Area to < 3:1 (< 3:2 for DC)].

8.6143 *VEHICULAR-MG EXCHANGE:* A disabled, non-captured, vehicular MG may be automatically repaired (even if disabled in step 8.6142) by Eliminating a MG of the type that would be given were the disabled MG to be Removed. If the disabled MG is one whose Removal is NA (e.g., a CMG), use a German LMG if the AFV is German-color or a U.S. MMG (or U.S.-color British LMG—see 8.6145) if the AFV is U.S.-color. In all cases, the MG to be Eliminated must be one Retained within the same Setup/Entry Area as the AFV. See also SSR CG9 (8.4).

8.6144 *CAPTURED EQUIPMENT:* Each side makes a separate dr for each functioning, captured, Retained Weapon in each friendly Setup/Entry Area that contains Personnel: if ≥ 4 it is Eliminated (disabled if vehicular). Each already-malfunctioned Captured Weapon is Eliminated (disabled if vehicular). Disablement of MA by either means does not cause Recall. At its captor's option, a captured vehicle may remain in play if it has any functioning Weapon (even if its MA is disabled); otherwise, it is turned into a (Burnt-Out) Wreck as per 8.6071.

8.6145 *ABANDONING, SCROUNGING & REMOVAL:* At the Controlling player's option, ≥ one non-Recalled vehicle in each friendly Setup Area may be Abandoned and/or turned into a (Burnt-Out)Wreck and/or have allowed armament Removed. Likewise, he may attempt to Scrounge ≥ one non-Recalled-vehicle/*non-Burnt-Out*-wreck in each friendly Setup Area. [EXC to all: Such actions are NA unless ≥ one Personnel unit (even an Abandoning crew) is Retained in that Setup Area.] Use a U.S.-color British LMG (provided in *KGP II*) for a MG Scrounged from a U.S.-built vehicle.

8.6146 *SPECIAL AMMO:* Each non-captured, non-Isolated U.S. Weapon in a U.S. Setup/Entry Area has all of its Depleted ammunition types (if any) replenished to normal availability. Each such German Weapon in a German Setup/Entry Area must make a Final dr of ≤ 3 (a +1 drm applies if Ammunition Shortage [8.618] is *already* in effect) for each Depleted Ammo type in order for that special ammunition to be restored. Adjust side records accordingly.



8.6147 *U.S. LOW-AMMO REMOVAL:* Each Low Ammo marker on each non-captured, non-Isolated U.S. unit/Weapon in a U.S. Setup/-Entry Area is removed.

8.6148 *U.S. AMMUNITION-SHORTAGE REMOVAL:* Each non-captured, non-Isolated U.S. Infantry-unit/Weapon in a U.S. Setup/Entry Area and currently suffering from Ammunition Shortage now has that penalty lifted.

8.6149 *SW/GUN dm/ELIMINATION:* At the Controlling player's option, ≥ one SW/Gun in each friendly Setup/Entry Area that contains Retained Personnel may be Eliminated/dismantled/assembled.



8.615 *FORTIFICATION, WRECK & IMMOBILE-VEHICLE REMOVAL:* Attempts may be made to Eliminate (Burnt-Out) wrecks, Immobile vehicles, roadblocks and Known minefields in friendly-Controlled Locations [EXC: an attempt vs a roadblock is allowed only if the removing side Controls *both* ground-level Locations that form the roadblock's (Narrow-Street; 5.141) hexside]. Vs roadblocks/minefields, the number of removal attempts cannot exceed the number of squad-equivalents Retained within that Setup Area; vs (Burnt-Out)-wrecks/Immobile-vehicles, the number of removal attempts cannot exceed the number of Mobile tracked vehicles of ≥ 30 tons Retained within that Setup Area.

Only one removal attempt dr may be made per item per completion of this RePh step (and does not create a Labor marker). If a Location contains > one of the above-mentioned items (all mines in the same Location are are considered one minefield for this purpose), the side may roll once for each (if so allowed as per the preceding paragraph), but must announce which item it is currently rolling for [EXC: a Location must be devoid of mines before a removal dr may be made vs a (Burnt-Out) wreck, or Immobile vehicle, in a non-Bypass position in that Location; vs a (Burnt-Out) wreck, or Immobile vehicle, in Bypass along—or vs any roadblock that lies along/across—a hexside, both ground-level Locations sharing that hexside must be devoid of mines before its removal may be attempted].

FORTIFICATION/WRECK/IMMOBILE-VEHICLE REMOVAL TABLE

Final dr	Result
≤ 3	Eliminated†
≥ 4‡	No Effect

drm:

+2 Minefield/(Burnt-Out)-wreck/Immobile-vehicle is in a Front-Line Hex.
+2 Roadblock is along/across a hexside of ≥ one Front-Line Hex.
+1 Minefield/(Burnt-Out)-wreck/Immobile-vehicle is ADJACENT to, but not in, a Front-Line Hex.
+1 Roadblock is not along/across a hexside of a Front-Line Hex, but is along/across a hexside of a hex that is ADJACENT to a Front-Line Hex.
–1 Per Assault Engineer HS-equivalent Retained in that Setup Area (vs minefield/roadblock only).

† Vs a Known minefield, this result Eliminates all mines (A-P and A-T) in the Location.

‡ An Original dr of 6 results in Casualty Reduction of a non-Isolated Elite MMC within that item's Setup Area (Assault Engineer if possible, otherwise owner's choice; if no Elite MMC is available, Reduce a First-Line MMC, etc.).

8.616 *CPP REPLENISHMENT:* CPP are replenished according to the following formula: the CPP Base # (8.6161) *minus* a Secret DR (see also 8.31) = the final amount of CPP Replenished. This final amount should be kept secret. See also 8.6162.

8.6161 *CPP BASE NUMBER:* Each side's CPP Base # is given below for the current CG Date and CG:

CPP BASE # CHART

	CG I		CG II		CG III	
CG Date	☆	✠	☆	✠	☆	✠
19 PM	35	35	–	–	–	–
19 N	50	25	–	–	20	35
20 AM	65	20	–	–	50	55
20 PM	45	20	–	–	90	75
20 N	50	50	40	35	65	40
21 AM	60	20	65	35	35	50
21 PM	75	25	10	25	20	25
21 N	–	–	–	–	20	75
22 AM	–	–	–	–	40	60
22 PM	–	–	–	–	20	30
22 N	–	–	–	–	20	30
23 AM	–	–	–	–	175	–
23 PM	–	–	–	–	175	–

8.6162 *CG ROSTER UPDATE:* On the line for the current CG Date in the CG Roster's "Repl" column, record the final amount of CPP Replenished. (The 19 AM box is shaded, since CPP Replenishment is NA prior to each CG's Initial Scenario.) Copy the number in the preceding CG Date's "Left" box (8.619) into the current CG Date's "Start" box, then add it to the number just written in the "Repl" box and record the sum in the "Total" box of the same line. This is the total CPP available for RG/Recon purchases.

EX: Players have just completed the 19 AM Initial Scenario of CG I, which resulted in a German victory. In® RePh step 8.6121 the CG Date changes to 19 PM. In RePh step 8.616 each side replenishes its CPP. The German, with a CPP Base # of 30 (8.6161), makes a CPP Replenishment DR of 6. This DR is subtracted from the German CPP Base # to yield a final replenishment of 24 CPP (30 – 6 = 24), so on the German CG Roster the German player writes "24" in the "Repl" box of the 19 PM line. The German also has two unspent CPP from the preceding CG Date (as evidenced by a "2" in the "Left" box of the 19 AM line), so he writes "2" in the "Start" box of the 19 PM line. He then adds the "2" to the "24", and writes "26" in the "Total" box of the 19 PM line. He thus has 26 CPP to spend.

8.617 KGP *WEATHER:* Consult the Historical Weather Chart[21] for each CG Date's weather (plus Moon Phase and Cloud Cover information if night). Alternatively, by mutual consent players may choose to use the optional 8.6171 table(s) to *randomly* determine the weather. Record the current weather on the CG Roster, in the "Weather" column on the line for the current CG Date. For Wind see SSR KGP2.

***KGP* HISTORICAL WEATHER CHART**

CG Date	CG Weather	Moon Phase	Cloud Cover
Dec 19 AM	Extremely Heavy Mist	–	–
Dec 19 PM	Moderate Mist	–	–
Dec 19 N	Moderate Mist	No Moon	Overcast
Dec 20 AM	Extremely Heavy Mist	–	–
Dec 20 PM	Very Heavy Mist	–	–
Dec 20 N	Very Heavy Mist	No Moon	Overcast
Dec 21 AM	Heavy Mist	–	–
Dec 21 PM	Heavy Mist	–	–
Dec 21 N	Light Mist & Overcast	No Moon	Overcast
Dec 22 AM	Light Mist & Overcast	–	–
Dec 22 PM	Very Light Mist & Overcast	–	–
Dec 22 N	Clear (Mist Change DR is NA)	No Moon	None
Dec 23 AM	Clear (Mist Change DR is NA)	–	–
Dec 23 PM	Clear (Mist Change DR is NA)	–	–

● ***8.6171** *RANDOM WEATHER:* In lieu of using the *KGP* Historical Weather Chart (see 8.617), the U.S. player makes a DR on the *KGP* Random Weather Table to determine the weather for the current CG Date. Record the results on the proper line of the CG Roster for the current CG Date.

****KGP* RANDOM WEATHER TABLE§**

Final DR	Result
≤ 3	Mist† & Overcast
4-8	Mist†
9	Overcast‡
≥ 10	Clear‡

DRM:
–1 If the preceding CG Date's *Weather* was Overcast
–1 If the current CG Date is AM or Night
+1 If the preceding CG Date's *Weather* was Clear
+6 If the current CG Date is Dec 22 N or later

§ Wind applies as per SSR KGP2.

† Also make a subsequent dr on the *KGP* Random Mist Density Table below.

‡ There is no Mist initially, but make Mist Change DR as per SSR KGP3 *unless* the current CG Date is Dec 22 N or later.

****KGP* RANDOM MIST DENSITY TABLE**

Final dr	Density
0	Extremely Heavy
1	Very Heavy
2-3	Heavy
4-5	Moderate
6-7	Light
≥ 8	Very Light

drm:
–1 If the current CG Date is AM
+1 If the current CG Date is PM
+2 If the current CG Date is Dec 21 N or later

8.618 *GERMAN AMMUNITION SHORTAGE:* Beginning on Dec 20 AM, and on each CG Date thereafter (if necessary), the German makes a DR. On a Final DR of ≥ 12 the German OB suffers from Ammunition Shortage (A19.131) for the duration of the CG. A +1 DRM applies per CG scenario completed *after* 20 AM.

8.619 *PURCHASING REINFORCEMENT GROUPS:* Both sides now secretly allot CPP for the purchase of RG. All CPP expended are subtracted from that side's current CPP total. The CPP expended, those remaining, and the RG(s) purchased may all be kept secret. Each side consults its respective RG chart for the different types of RG historically available, the CPP cost of each, the number of each that may be purchased during the course of the CG being played,[22] and any pertinent footnote(s). As each RG is selected, record its ID (and the CPP expended to purchase it) in the "RG Purchased" column, on the line for the current CG Date, on the CG Roster. After all RG are selected, write the total CPP expended in the "Spent" column of the CG Roster for the current CG Date; then write the number of CPP remaining, even if zero, in the "Left" column for the current CG Date. Any CPP remaining may be used in Recon (RePh step 8.622), or to purchase further RG in any subsequent RePh step 8.619 (-.6198).

See SSR CG6-CG7 (8.4), 8.6194a, 8.6197 and 8.6198 for setup/entry restrictions on purchased RG. Each RG chart contains the following columns:

8.6191 *ID:* Provides an alphanumeric identification for each RG; e.g., vehicular-type RG have an ID of "V#", infantry-type RG have an "I#" ID, etc.

8.6192 *GROUP TYPE:* Lists the name of the RG. This name and its ID are secretly recorded on the purchasing side's RG Purchase Record (8.6198).

U.S. REINFORCEMENT GROUP CHART

ID	Group Type	Unit Type(s)	CPP COST	CG Date Max.	CG Maximum I	CG Maximum II	CG Maximum III	Entry Code
F1	FB 44	1-3 FB 44[f]	2	1	2	0	3‡	–
I1	Inf Pltn	3× Squad; 1× HS[lqr]	7	4	16	0	5+8*	●●
I2	Para Inf Pltn	3×7-4-7; 1×3-3-7[lr]	8	5	0	12	0	●
I3	Combat Eng Pltn	3× 7-4-7[elr]	12	1	1	0	1*	●●
I4	HMG Pltn	3× .30cal HMG; 1× .50cal HMG[cr]	12	1	3	0	1+2*	●●
I5	Med MTR Sect	2× 81mm MTR[cr]	6	1	2	2	2	●●
I6	Arm'd Inf Pltn	3× Squad; 1× HS; 3× M3 *ht*; 1× M3A1 *ht*; 1× M3(MMG) *ht*[lqr]	24	1	3	0	1+2*	●●
I7	Arm'd MTR Pltn	3× M4A1 MC *ht*[hr]	12	1	1	0	1+1*	●●
I8	Arm'd MG Pltn	3× M3(HMG) *ht*[qr]	22	1	1	0	1*	●●
V1	Lt Tank Pltn I	5× M5A1 *LT*[hr]	12	2	2	0	2*	●●
V2	Lt Tank Pltn II	2× M24 *LT*[r]	7	1	1‡	0	1*	●●
V3	Med Tank Pltn I	5× *MT*[arl]	16	2	3	0	3+2*	●●
V4	Med Tank Pltn II	5× *MT*[arl]	18	1	2‡	0	1+1*	●●
V5	Aslt Gun Pltn	3× M4(105) *MT*[r]	11	1	1	0	1+1*	●●
V6	TD Sect I	2× M10 *TD*[ar]	7	2	2‡	0	2*	●●●
V7	TD Sect II	1× M36 GMC *TD*[z]	5	2	1‡	2‡	1*	●●●
V8	Jeep Sect	2× ¼-Ton Jeep *tr*[r]	2	2	3	2	3	●●●●
V9	Truck Sect I	2× 1½-Ton *tr*[r]	1	2	3	0	3	●●●●
V10	Truck Sect II	2× 2½-Ton *tr*[r]	2	2	3	0	3	●●●●
V11	Truck Sect III	2× 7½-Ton *tr*[r]	2	1	1	0	1	●●●
G1	AT Pltn I	3× M1 57mm *AT*; 3× ¼-Ton Jeep *tr*[cr]	10	1	1	1‡	1	●●
G2	AT Pltn II	3× M1 57mm *AT*; 3× M3 *ht*[cr]	13	1	1	0	1*	●●
G3	AT Sect	2× M5 3-in. *AT*; 2× M3 *ht*[cr]	11	1	2	0	0	◌
G4	ART Sect	2× M2A1 105mm *ART*; 2× 2½-Ton *tr*[cr]	8	1	2‡	0	0	●
G5	AA Sect	1× M2 90mm *AA*; 1× M4 *Tractor*[2?r]	7	2	2‡	0	1‡*	●●
O1	Btln Mortar	80+mm OBA Module[mpS]	7	1[v]	3	2	7[o]	–
O2	Med Artillery	100+mm OBA Module[pS]	8	1[v]	2‡	1‡	5[o]‡	–
O3	M12 GMC	150+mm OBA Module[p]	4	1[v]	1[z]	0	1[x]	–
B1	Bombardment	[b]	8	1	3‡	1‡	6‡	–
M1	Fortifications	15 FPP	1	5	18	10	14	–
M2	Sniper	SAN Increase +1	3	1	7	4	12	–

* Each colored number represents the maximum number of such RG that may be purchased for entry (or setup as per 8.6194a) via an Entry Area of that same color (see 8.6197).

U.S. RG CHART NOTES:

[a] Roll for armor leader availability on table 8.6206.

[b] When the U.S. player purchases a pre-game Bombardment, he records a secret Pre-Registered hex for it. To resolve each Bombardment, after all on-map setup is completed he places an AR counter in the Pre-Reg. hex and makes a C1.31 error DR (with the white dr halved; FRU) to determine the Bombardment Center Hex. He then places a FFE:C counter in that Center Hex. All hexes within seven hexes of that hex now undergo Bombardment as per C1.82-.823. There are no "spared hexes". After the Bombardment has been fully resolved, its FFE:C is removed and that Bombardment RG is Eliminated. Each Bombardment is fully resolved before conducting another Bombardment (if any). The maximum number of Bombardments useable per CG scenario is equal to the number of new CG Dates since the last CG-Scenario End (e.g., if one Idle Date occurred between scenarios, no > two Bombardments may be conducted for the current scenario). No Bombardment is resolved on an Idle Date.

[c] Each MG is accompanied by a 3-4-7 HS [EXC: 3-3-7 HS in CG II]; each Gun by a 2-2-7 crew.

[e] Assault Engineers (A11.5; H1.22) and Sappers (B28.8; B24.7).

[f] Determine arrival turn, number of FB and presence/lack-of bombs as per E7.2-.21. (All bombs are HE.) No > two FB RG may enter play per CG scenario, and no > one (or part thereof) may be in play at any given time during the scenario.

[g] Available only on 21 PM in CG I and 23 PM in CG III. M12 GMC OBA[z] is a 150mm module (HE only) with an Offboard Observer (in lieu of a radio/-phone) who in CG I is at Level 0 on/south-of StU1 [EXC: he has no LOS to any hex on/north-of hexrow StX], and in CG III is at Level 3 on/south-of LgK1; secretly record the actual hex during U.S. setup. Normal OBA rules apply to M12 GMC OBA [EXC: each red chit drawn is automatically mixed back into the Draw Pile; each FFE can affect (i.e., its Blast Area comprises) only the hex containing the FFE counter; the FFE creates no LOS Hindrance].

[h] The initial Inherent crew of each M4A1 MC halftrack is a 2-2-7 (not a 1-2-6).

[l] Determine SW and leader type(s) as per 8.6204 and 8.6206 respectively.

[m] Receives a –2 DRM to its Radio Maintenance DR (C1.22).

[o] As of 23 AM in CG III, an Offboard Observer (in lieu of a radio/phone) is automatically available for each module (if so desired, and at no extra CPP cost) at Level 3 on/south-of LgK1; secretly record the actual hex during U.S. setup.

[p] Increase CPP cost by one per Pre-Registered hex (C1.73) purchased with the module (no module may have > two Pre-Reg. hexes). Each Pre-Reg. hex is Retained as long as the module it is assigned to is Retained (see SSR CG22; 8.4). Barrage (E12.) is NA. See also SSR CG15.

[q] Determine MMC types as per 8.6202. For RG I6 and I8, see also U.S. Vehicle Note 30.

[r] Must enter as reinforcements if entered on the CG Date of purchase (SSR CG6c; 8.4) [EXC: 8.6194a]. See also 8.6194b.

[s] May fire only HE and SMOKE [EXC: no Smoke for 80+mm].

[t] Determine model type(s) as per 8.6203.

[v] See also SSR CG15 and CG22 (8.4).

‡ Purchase for use during the Initial Scenario of the CG is NA.

8.6193 *(FULL/DEPL) UNIT TYPE(S):* Lists the type(s) of units that each RG contains. U.S. RG always include each unit listed (i.e., are always at Full Strength), while most German RG are subject to Depletion (see 8.6201).

8.6194 *CPP COST:* Lists the CPP cost of the RG (regardless of its later-determined Strength, if German). This is the number of CPP that must be subtracted from the purchasing side's current CPP total in order to receive that RG. If purchased on a CG Date on which a scenario will be played (8.6232), most German RG types must be set up on-map in Reserve (SSR CG7a; 8.4) while most U.S. RG types enter play during the course of the scenario (SSR CG6a and CG7c) [EXC: as per Initial Scenario SSR, or if purchased for Standard On-Map Setup as per 8.6194a]. Place all counters for each entering RG in an Eligible-Entry-Area Holding Box (as per 8.15) until they set up to enter. The listed CPP cost of certain RG may be altered as follows:

a) STANDARD ON-MAP SETUP: Unless otherwise prohibited, each U.S./-German RG whose ID on the RG Chart begins with the letter "I", "V", "G" or "HW" may be set up on-map in a friendly, non-Isolated Setup Area in a scenario played on the same CG Date that it is purchased *if it has its listed CPP cost increased by three* [EXC: German "G" type RG need *not* pay the extra three CPP in order to use Standard On-Map Setup]. A German RG purchased for Standard On-Map Setup is *not* set up in Reserve—and, if it can use an Eligible Entry Area, may instead be Retained in that Entry Area's Holding Box to enter as a reinforcement (see SSR CG6c; 8.4). A U.S. RG may be purchased for Standard On-Map Setup only if there is ≥ one Eligible Entry Area with that RG's Entry Code (8.6197) on the Map Group it will be set up on, and for setup purposes that U.S. RG must be able to trace a path (of any length) of contiguous, Enterable (by all units of that RG) friendly-Setup/Uncontrolled-Territory Locations from its Setup Area to that Entry Area. Only the listed CPP is paid to gain current-CG-Date use of an "M" or "B" type RG, regardless of nationality.

b) U.S. EARLY ENTRY: By increasing the listed CPP cost of a U.S. RG whose ID begins with "I", "V" or "G" by 50% (FRD), that RG may enter at a U.S. Entry Area of the proper (for that RG) Entry Code color (8.6197) *one CG Date prior to* the CG Date printed in that Entry Area's arrow. See also SSR CG6c (8.4).

EX: The CG Date is 20 N of CG I. U.S. RG must still normally enter within four hexes of StGG1/-StTT19. However, each *"blue"-Entry-Code* "I#"/"V#"/"G#" RG the U.S. side purchases at 150% (FRD) of its printed CPP cost may instead enter within four hexes of StQQ53 on 20 N, one CG Date earlier than the "21 AM" date printed in the arrow in that hex.

8.6195 *CG DATE MAX.:* Lists the maximum number of RG of this type that may be purchased *per CG Date per Map Group*.

8.6196 *CG MAXIMUM:* Lists the maximum number of RG of this type that may be purchased during the course of each CG. Players must keep a written record (using the RG Purchase Record; 8.6198) of each RG purchased during the CG in order to know if additional RG of that type are still available for purchase. RG given in a CG's Initial-Scenario OB (8.51-.53) never count against this maximum.

EX: The German side may purchase a maximum of six SS Inf Pltn RG during CG II.

8.6197 *U.S. ENTRY CODE:* The "Entry Code" column of the U.S. RG Chart contains ≥ one color-coded dot for each "I", "V" and "G" RG type. This dot corresponds to the (partial) background color of the arrow in the Entry Area that in most cases must be used by that RG initially (see SSR CG6a; 8.4), and also serves to identify that RG's parent formation:

- ● ("St" Map Group): Task Force Harrison (the 119th Infantry Regiment of the 30th Infantry Division, and the 740th Tank Battalion), with elements of the 743rd Tank Battalion and 823rd Tank Destroyer Battalion (SP) attached;
- ● ("Lg" Map Group): Elements of the 117th Infantry Regiment (30th Infantry Division) and 743rd Tank Battalion;
- ● ("St" Map Group): Task Force Jordan (elements of the 1st Battalion, 33rd Armored Regiment, and of the 36th Armored Infantry Regiment) of Combat Command B, 3rd Armored Division;

GERMAN REINFORCEMENT GROUP CHART

ID	Group Type	Full/ Depl	Unit Type(s)	CPP COST	CG Date Max.	CG Maximum I	II	III
I1	Para Inf Pltn	3/2	4-4-7 [dl]	5	3	3	0	2‡
I2	SS Inf Pltn	3/2	6-5-8 [dl]	9	2	5	6	4
I3	SS PzGr Pltn	3/2 3/2	6-5-8; SPW 251/1 *ht* [dl]	12	2	4	1	4
I4	SS Eng Pltn	3/2	8-3-8 [del]	14	1	1	0	4
V1	Pz IV Sect	2/1	Pz IV H/J *MT* [adj]	8	2	1	1*	3
V2	Pz V Sect	2/1	Pz VG *MT* [ad]	14	3	4	1*	7
V3	Pz VI Sect	2/1	Pz VIB *HT* [ad]	16	1	1	1*	3
V4	AC Sect	3/2	PSW 234/2 *AC* [ad]	7	1	0	0	1
V5	Flam ht Sect	2/1	SPW 251/16 *ht* [d]	7	1	1	0	1
V6	SPA Sect	2/1	sIG 38(t)M *SPA* [d]	7	1	0	0	3‡
V7	SPAA Sect	2/1	FlaKPz IV/20 *SPAA* [ad]	8	1	1	0	1
V8	Staff car Sect	2/1	Kfz 1 *tr* [d]	1	1	1	1	1
V9	Amphib car Sect	2/1	Kfz 1/20 *tr* [d]	1	1	1	1	1
V10	AAht Sect I	2/1	SdKfz 10/4 *AAht* [d]	2	1	0	0	1
V11	AAht Sect II	2/1	SdKfz 6/2 *AAht* [d]	4	1	0	1	0
V12	AAht Sect III	2/1	SdKfz 7/1 *AAht* [d]	6	1	0	2	0
V13	AAht Sect IV§	2/1	SPW 251/21 *AAht* [d†]	6	1	0	1	1
V14	AAtr Sect	2/1	2cm FlaK LKW *AAht* [d]	2	1	0	1	0
G1	INF Pltn	2/1 2/1	7.5cm leIG 18 *INF*; SdKfz 2 *htMC* [cdR]	6	1	1	1	1
G2	AT Sect	2/1 2/1	7.5cm PaK 40 *AT*; SdKfz 11 *ht* [cdR]	8	1	1	0	1
G3	ART Sect	2/1 2/1	10.5cm leFH 18 *ART*; SdKfz 7 *ht* [cdR]	8	1	0	1	0
G4	AA Sect	2/1 2/1	2cm FlaK 38 *AA*; Opel Blitz *tr* [cdiR]	6	1	1	1	3
G5	Hvy MTR Sect	2/1 2/1	12cm GrW 42 *MTR*; SdKfz 11 *ht* [cdR]	5	1	0	0	2‡
HW1	SS MG Pltn	2× HMG; 2× MMG [cd]		12	1	2	2	2
HW2	SS PzGr HW Pltn	One each: SPW 251/sMG *ht*; SPW 251/2 *ht*; SPW 251/9 *ht* [bd]		11	1	2	1	2
O1	Btln Mortar	120+mm OBA Module [mpRs]		7	1	2[u]	1	0
O2	Hvy Artillery	150+mm OBA Module [pRs]		9	1	2[u]	1	0
M1	Fortifications	15 FPP[R]		1	5	15	12	14
M2	Sniper	SAN Increase +1[R]		2	1	4	3	4

GERMAN RG CHART NOTES:

[a] Roll for armor leader availability on table 8.6206.

[c] Each MG is accompanied by a 3-4-8 HS; each Gun by a 2-2-8 crew.

[d] Subject to Depletion (8.6201).

[e] Assault Engineers (A11.5; H1.22) and Sappers (B28.8; B24.7).

[h] The initial Inherent crew of each SPW 251/2 halftrack is a 2-2-8 (not a 1-2-7).

[i] Has IFE of "6" (German Ordnance Note 26).

[j] The German player may freely select Pz IV H or J, but each such Section must be of the same model.

[l] SW and leader types are determined as per 8.6204 and 8.6206 respectively.

[m] Receives a –2 DRM to its Radio Maintenance DR (C1.22).

[p] Increase CPP cost by one per Pre-Registered hex (C1.73) purchased with the module (no module may have > two Pre-Reg. hexes). Each Pre-Reg. hex is Retained as long as the module it is assigned to is Retained (see SSR CG22; 8.4). Barrage (E12.) is NA. See also SSR CG15.

[R] Cannot be set up in Reserve (SSR CG7a; 8.4).

[s] Each German OBA module has Scarce Ammunition, and may fire only HE and smoke.

[u] The second module cannot be purchased until the first one has been Eliminated as per SSR CG15 (8.4).

‡ Purchase for use during the Initial Scenario of the CG is NA.

* In CG II, the German may purchase only *one* of these three Pz Sect RG. Once one is purchased, the remaining two become unavailable.

§ *SPW 251/21:* When the *Luftwaffe* began uparming its aircraft with 30mm machine-cannons, numbers of now-surplus MG 151 15mm and 20mm rapid-fire aircraft guns were made available to the *Heer* Some of these weapons were installed in specially built halftracks for use in both ground and AA roles. Designated the 251/21, this halftrack carried in its passenger compartment a modified *Kriegsmarine* pedestal mount with three such guns of the same caliber. Production of the SPW 251/21 began in the late summer of 1944, but relatively few were produced. It was apparently intended that three such vehicles would equip the AA section of the 4th (heavy weapons) platoon in each *panzergrenadier kompanie*. Two SPW 251/21 were left behind in La Gleize by *Kampfgruppe Peiper*.

† The MA has AA capability—as signified by "MA: AA" on the counter.

● ("Lg" Map Group): Task Force McGeorge (elements of the 1st Battalion, 33rd Armored Regiment, and of the 36th Armored Infantry Regiment) of Combat Command B, 3rd Armored Division;

●: Elements of the 504th Parachute Infantry Regiment (82nd Airborne Division) and 703rd Tank Destroyer Battalion (SP);

●: Elements of Task Force Harrison and 823rd Tank Destroyer Battalion (SP), and of Task Force Jordan.

8.6198 *RG PURCHASE RECORD:* After all RG for the current CG Date have been selected and CPP expended for them, the RG Purchase Record must be updated. In order to record all units/Equipment received in an RG, one line of this sheet must be filled out for each RG purchased, in order to keep track of the number purchased thus far in the CG. If preparing for a CG Initial Scenario, one line is also filled out for each RG *given* in the Initial-Scenario OB (but these latter do not apply towards RG purchase limits; 8.6196) The following listing explains how each column of the RG Purchase Record is intended to be used.

CG Date: The CG Date the RG is purchased (e.g., "20 PM").

RG ID: The RG's alphanumeric ID (e.g., "I2" for a German SS Inf Pltn).

Group Type: The RG's name (e.g., "SS Inf Pltn" for German RG I2).

#P (Number Purchased): The total number of friendly RG of this Group Type purchased thus far during the CG.

#R (Number Remaining): The number of this RG Group Type still available for subsequent purchase in the CG. This number is derived by subtracting the number in that RG's #P column from the number listed in the "Maximum" column (for that RG for that CG) in that side's RG Chart.

Str. (German RG only): The RG's strength, as determined in RePh step 8.6201. Record "F" for a Full, or "D" for a Depleted, RG.

 # Units: The number of units received in that RG of the Unit Type listed in the respective RG Chart (e.g., "3" for a Full Strength German SS Inf Pltn), and the unit type (if subject to Quality; 8.6202).

SW/Gun(s) Received: As each SW/Gun for that RG is determined (RePh steps 8.6203-.6205), record the number of each Weapon type received. For a "G#" RG simply record (in any convenient box) the Gun Caliber Size and Barrel Length of each Gun received.

Pltn/Sect Leader: As each eligible RG's (armor) leader is determined (RePh step 8.6206), record his A10.7/D3.4 Strength Factor.

Objective Hex: This column is used to record the Objective Hex of each "I"-type RG *when it is initially purchased*, or that of each Initial-OB-given "I"-type RG *before the opponent sets up*. See also the 8.2 definition.

Setup/Entry Area ID: On its CG Date of purchase, each RG [EXC: each whose ID begins with "F" or "M"; U.S. RG O3 and B1] must have a friendly, non-Isolated Setup Area or Eligible Entry Area recorded for it (or, if OBA, for its radio/field-phone). Use the hex coordinate of each Entry Area's center (arrow) hex as the ID for that Area.

8.620 *RG STRENGTH, QUALITY, WEAPONS & LEADERS*

8.6201 *GERMAN RG STRENGTH:* Each German RG whose ID begins with "I", "V", "G" or "HW" is subject to Depletion. For each such RG the German player has just purchased (as well as for each such RG he receives in an Initial-Scenario OB; 8.5), he must make one DR on the RG Strength Table to determine whether it is received at Full or Depleted Strength. A Full-Strength "I", "V" or "G" RG contains the number of specified units/Guns listed to the *left* of the "/" in the Full/-Depl column of the German RG Chart, while such a Depleted RG contains the number listed to the *right* of the "/". For German "HW" RG, see 8.6205. U.S. RG are always received at Full Strength (8.6193).

● **GERMAN RG STRENGTH TABLE**

DR	RG Strength	DRM:
≤ 11	Full Strength	+1 per *day* after Dec 19 N
≥ 12	Depleted	–1 If "V" or "G"-type RG

8.6202 *U.S. INFANTRY-TYPE-PLTN QUALITY:* Each U.S. Inf Pltn (RG I1), Arm'd Inf Pltn (RG I6) and Arm'd MG Pltn (RG I8) is subject to a quality dr on the following table. The U.S. player must make one dr for each such just-purchased (as well as for each such Initial-Scenario OB-given) RG. Each MMC of that RG must be of the dr-determined type.

U.S. (ARM'D) INF PLTN QUALITY

Final dr	MMC type
≤ 1	Elite (6-6-7/3-4-7)
2-4	1st Line (6-6-6/3-4-6)
5	2nd Line (5-4-6/2-3-6)
6	Green (5-3-6/2-2-6)

drm:
–1 If "Arm'd" RG (I6 or I8)

EX: The U.S. player has purchased one Inf Pltn RG and one Arm'd Inf Pltn RG. In this step he must make a quality dr for each. An Original dr of 5 for the Inf Pltn results in its being composed of three 2nd-Line 5-4-6 squads and one 2-3-6 HS. A Final dr of 1 for the Arm'd Inf Pltn results in elite MMC being received, resulting in a Personnel/vehicle composition of three 6-6-7, one 3-4-7, three M3 ht, one M3A1 ht, and one M3(MMG) ht with an additional 6-6-7 Passenger squad (or its two HS; see U.S. Vehicle Note 30). SW and leaders for these RG will be determined as per 8.6204 and 8.6206.

8.6203 *U.S. MEDIUM TANK MODELS:* Make a DR on the appropriate table below for each purchased or OB-given U.S. Med Tank Pltn (RG V3 or V4).

MED TANK PLTN I

DR	Model Type(s)
2	M4A1 ×4; M4A3E2(L)
3	M4A1 ×3; M4A3E2; M4A1(76)W
4-5	M4 ×4; M4A3(76)W
6-8	M4A1 ×5
9-10	M4A1 ×3; M4 ×2
11-12	M4A1 ×3; M4A1(76)W; M4

MED TANK PLTN II

DR	Model Type(s)
2	M4A3(76)W ×2; M4A3(75)W ×2; M4A3E2(L)
3	M4A3 ×4; M4A3E2
4-6	M4A3(75)W ×4; M4A3(76)W
7-8	M4A3 ×5
9-10	M4A3(75)W ×3; M4A3(76)W ×2
11	M4A3(76)W ×5
12	M4A3(76)W ×2; M4A3(75)W ×2; M4A3E2

8.6204 *INFANTRY-TYPE-PLTN SW:* Determine the number of SW received by each infantry-type RG listed in the following "Infantry-Type-Platoon SW Charts". A Full-Strength platoon receives the entire complement of SW listed for it. A Depleted (German; 8.6201) platoon RG must have a Secret dr made for *each* SW listed as available to a Full-Strength platoon of that same type. On an Original dr of ≤ 4 the SW is in the platoon's OB; otherwise it is forfeit. Record each SW received in its appropriate column on the RG Purchase Record on that RG's line.

INFANTRY-TYPE-PLATOON SW CHARTS§

U.S.

Platoon Type	MMG	MTR (M2)†ᵛ	BAZ 45	FT	DC
Inf	1	1	1		
Para Inf	1	1	1		
Combat Eng	1			1	2
Arm'd Inf		1[W]			

† Each M2 MTR, as well as its manning HS, that is traded for 60mm OBA as per U.S. Ordnance Note 1 is Eliminated. See also SSR CG15 (8.4) and SSR KGP16.
ᵛ See U.S. Vehicle Note 29. * WP ammo is available as if it were 1945.

GERMAN

Platoon Type‡	LMG	Lt MTR	PSK	FT	DC
Para Inf	1	1			
SS Inf	2		1		
SS PzGr	1		1		
SS Eng	1			1	2

‡ If the platoon is Depleted, each listed SW is received only on a dr of ≤ 4.

§ Each SW received must set-up/enter stacked with (and possessed by) a unit of its respective RG during the first CG scenario in which its RG participates [EXC: if it is Retained off-map for an entire scenario].

8.6205 *GERMAN HW PLTN:* Each *Full-Strength* German "HW"-type Pltn RG receives all Equipment/Personnel counters listed for it. If *Depleted* (8.6201), the German makes a Secret dr for each listed piece of Equipment: an Original dr of ≤ 3 results in that piece of Equipment being received (each MG SW received is accompanied by a 3-4-8 HS); if ≥ 4 that piece of Equipment (and its respective HS) is forfeit. [EXC: At least two pieces of Equipment must be received with a German "HW" Pltn RG; if the Platoon's final total is < two pieces of Equipment, ignore this result; roll again for each piece of Equipment in the Pltn until a final total of ≥ two are received after rolling for each.] Each piece of Equipment received must set-up/enter stacked with (and possessed by) another unit of its RG during the first (only) CG scenario in which it participates. Record each piece of Equipment received in its respective column on the RG Purchase Record.

EX: The CG Date is 21 AM in CG I. The German has just purchased two SS Inf Pltn, a Pz IV Sect, an SS PzGr HW Pltn and a 120+mm battalion mortar OBA module. The German OBA automatically has Scarce Ammunition (German RG Chart footnote "s"). All other RG purchased are subject to Depletion (8.6201). The German now makes a separate Secret DR for each; a +2 DRM applies as the day is two days past 19 December. The Final DR are 12, 6, 8 and 13 respectively, resulting in one Depleted and one Full SS Inf Pltn, a Full Strength Pz IV Sect, and a Depleted SS PzGr HW Pltn.

Since one SS Inf Pltn is Depleted, two 6-5-8 squads are received but the types and numbers of their SW must be determined by dr (8.6204). Three Secret dr are required, one per SW (two LMG and one PSK) allotted to a Full-Strength SS Inf Pltn. For the LMG the dr are 6 and 4; for the PSK it is 3. Since a dr of ≤ 4 grants a SW to a Depleted Pltn, the Depleted SS Inf Pltn receives one LMG and one PSK. The Full-Strength SS Inf Pltn automatically receives both LMG and the PSK with no dr needed.

Now the units of the Depleted SS PzGr HW Pltn are determined (8.6205). The German makes a separate Secret dr for each piece of Equipment allotted to a Full-Strength SS PzGr HW Pltn (i.e., one apiece for the SPW 251/sMG, SPW 251/2 and SPW 251/9). The respective dr are 2, 5 and 6. Since a dr of ≤ 3 grants an Equipment piece to a Depleted HW Pltn, the only Equipment this RG would receive is the SPW 251/sMG. Therefore, the German rolls again for *each* Equipment since ≥ two Equipment pieces *must* be received (8.6205) by each HW Pltn. This time the three dr are 6, 2 and 3 respectively, resulting in the SS PzGr HW Pltn receiving the SPW 251/2 (with a 2-2-8 Inherent crew) and the SPW 251/9.

Using the above methods for Depleted RG, it is possible to receive all, some or none of the Equipment listed for those types of RG [EXC: each HW Pltn will always receive ≥ two Equipment pieces].

8.6206 *LEADER DETERMINATION:* For each purchased/OB-given "I"-type RG marked with RG-chart footnote "l", and for each "V"-type RG marked with RG-chart footnote "a", make one Secret DR on the appropriate column of the following table to determine the type of leader received for that RG. Each leader must set-up/enter with a unit of his respective RG during the first (only) CG scenario in which he participates [EXC: if he possesses a radio/phone (see SSR CG15; 8.4), or is Retained off-map for an entire scenario].

LEADER TABLES

Final DR	Personnel Leader	Personnel Leader	Armor Leader
1	10-3	10-3	–
2	10-2	10-2	10-2
3	9-2	9-2	9-2
4	9-1	9-1	9-1
5	8-1	8-1	8-1*
6	8-1	8-0	–
7-8	8-0	7-0	–
9	7-0	7-0	–
10	6+1	6+1	–
≥ 11	–	–	–

DRM:
–1 If all MMC in the RG are Elite (NA to armor leader)
+1 If the RG is Depleted (NA to U.S.)
+1 If the current CG Date is on/after 21 Dec PM (NA to U.S.)

* Exchange for a 9-1 armor leader if for a Pz VIB RG

8.621 *PURCHASING FORTIFICATIONS:* Fortifications, which are obtained by spending FPP, may be purchased on each CG Date if the player has the requisite FPP (purchased in step 8.619). All FPP unspent upon the completion of this step are forfeit.

As Fortifications are selected, the specific type (and strength, if mines) must be recorded in the "FORTIFICATIONS" area of the CG Roster.

EX: The German player has 30 FPP to spend on Fortifications. He spends 16 FPP on four factors of A-T mines, so on his CG Roster he writes "4" beside "A-T:" in the "Total # of Factors" area at the bottom of the "Mines" column. *(Use of a soft-lead pencil is recommended, since these per-CG-Date totals are erased after determining the specific map Location.)* He spends 9 FPP buying HIP for one squad (3 FPP), two HS (4 FPP), one crew (1 FPP) and one SMC (1 FPP), so at the bottom of the "HIP Locations" column he writes "1", "2", "1" and "1" after "Squad:", "HS:", "Crew:" and "SMC:" respectively. With his remaining 5 FPP he purchases five "7"s for use as Dummies. Note that no actual map Locations are recorded at this time, as actual on-map placement does not occur until that side is setting up. Later, during setup (steps 8.6241-.6242), the player uses the tallies written at the bottom of the various Fortifications columns to determine how many such "Fortifications" he has, and records the specific Locations (as applicable) on his Fortification record, erasing all notations made in the various "Total #" boxes so that the tally areas may be used for subsequent Fortification purchases.

FORTIFICATION PURCHASE TABLE

Fortification Type	FPP Cost
Trench[F8]	7
Foxhole[F8]	3/2/1[1]
A-P Mine Factor[5]	1/1.5[2]
A-T Mine Factor[5]	3/4[2]
Roadblock[F8]	7
"7"s	1
HIP[F9]	3/2/1/1[3]

[1] For 3-, 2- and 1-squad capacity respectively.
[2] U.S./German cost respectively, regardless of whether hidden or Known (7.1) mines. Each side may spend no > 30 FPP per CG Date per Map Group on mines. During setup, the strength of pre-existing minefields may be increased by the Controlling side, *if* their strength is known to that side, by adding extra A-P/A-T factors to them (in allowed increments and to allowed maximums). Minefields may not be decreased in this manner. Mine factors purchased on this table cannot be exchanged for Booby Trap (B28.9) capability. A-T mine factors may be used in a Daisy Chain (B28.531). See also 7.2.
[3] Squad/HS/crew/SMC cost respectively. No > 10% (FRU) of a side's non-Reserve Infantry squads (plus all SW/SMC set up with them in the same Location) may use HIP in a daytime scenario. For Emplaced-Gun HIP see also SSR CG12 (8.4). HIP is NA for Cloaked (including Reserve) units.
[F8] Must be added to a Setup-Area Location. Of the items in this table, only those items marked with an "F" may be set up in a Front-Line Hex.
[F9] Of the items in this table, only those items marked with an "I" may be added to an Isolated Location.
[5] This type of Fortification may be added only to a Setup Area that contains ≥ one Retained squad-equivalent. Furthermore, the number of *all* Fortifications (counting each 6-A-P/2-A-T factor minefield [or part thereof], and each "1S" foxhole capacity, as one Fortification) added to a Setup Area *during a RePh* cannot exceed the number of squad-equivalents Retained within that Setup Area.

8.622 *PURCHASING RECONNAISSANCE:* Each side may now make a Recon dr, provided it first expends the required CPP for this purpose and the players are not preparing to play an *Initial* Scenario. If Recon can be purchased, that side deducts one (or two, for a beneficial drm on its Recon dr) from its current CPP total in the CG Roster's "Left" column, and records the new total in the "Start" column of the *next* CG Date. (The number in the "Start" column shows the side's CPP total at the start of that CG Date.) If a side cannot or opts not to use Recon, its current CPP total is simply copied in the "Start" column of that next CG Date.

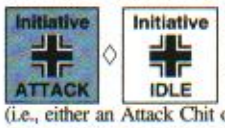
A Recon Final dr is the number of *Locations* in which the opponent will have to reveal units and Fortifications, if he has in fact set up in them; see 8.6243. The Recon dr is modified by the following cumulative drm:

+5 Spent 2 CPP
−1 Reconnoitering side's Majority Squad Type (E.4) is Lax

The *number* of Locations that may be reconnoitered (8.6243) per Map Group per CG Date is recorded on the CG Roster in the "Recon" column of the current CG-Date line. The number recorded for each Idle CG Date is cumulative with the number recorded for each succeeding CG Date, but not *beyond* the next CG scenario.

8.623 *INITIATIVE DETERMINATION:* Each side selects its Initiative for the current CG Date, either to "Attack" or stand "Idle", representing its desired tactical plans.

8.6231 *ATTACK-CHIT LIMITS:* Each CG (8.51-.53) lists the *maximum* number of Attack Chits (8.6232) each side may select during the course of that CG. (There is no limit otherwise on selecting Attack Chits on consecutive CG Dates.) For purposes of this rule, neither side is considered to have selected an Attack Chit for an Initial Scenario.



8.6232 *PROCEDURE:* Each side takes its respective Initiative Chit and secretly places it on the playing area, hidden from the opponent's view, with the chit's face-up side displaying the side's Initiative selection (i.e., either an Attack Chit or an Idle Chit) for the next CG scenario. The counters are then revealed simultaneously and cross-indexed on the following matrix to determine if a new CG scenario is generated and, if so, what type it will be.

INITIATIVE MATRIX

Chit selected	☆ Attack	☆ Idle
✦ Attack*	Dual Attack[1]	German Assault[1]
● Idle	U.S. Assault[1]	Idle[2]

* The Attack Chit cannot be selected by the German player if the U.S. player currently has no on-map Retained units (8.6131).

[1] Scenario generated; consult proper scenario type below for further information.

[2] No scenario generated for this CG Date; each side calculates its Current-LVP and CG-LVP Totals and records them (in the current CG Date's line) on its CG Roster, then repeats RePh steps 8.612-.6233.

8.6233 *SCENARIO TYPES*

a) DUAL ATTACK: Represents a CG Date when both sides have planned offensive action. The U.S. player makes a dr to determine which side sets up first: if ≤ 3 the U.S. does; otherwise the German does. The side moving first, however, is not determined until after all setup is complete (step 8.625).

b) NIGHT DUAL ATTACK: If both sides choose Attack for a *Night* CG Date, *both* are considered Scenario Attackers. Both sides may use Cloaking as per SSR CG5 (8.4). Neither side is restricted by the use of No Move counters (E1.21), and neither side receives the benefits/penalties of a Scenario Defender (E1.2; E1.22). The side moving first is still determined in step 8.625. See also SSR CG5.

c) GERMAN ASSAULT: On this CG Date the German side is attacking. The U.S. sets up first, and the German moves first.

d) U.S. ASSAULT: On this CG Date the U.S. side is attacking. The German sets up first, and the U.S. moves first.

8.6234 KGP *CG-SCENARIO VICTORY CONDITIONS:* The following Victory Conditions apply to the pertinent type of CG scenario (as determined in 8.6232). However, the Victory Conditions for each CG's Initial Scenario, as well as those for each CG, are given with the other information for the respective CG and its Initial Scenario (8.51-.53). A side may concede prior to the end of play in a CG scenario only if allowed by the opposing side.

a) DUAL ATTACK: The Americans win if at CG-Scenario End their Current-LVP Total is > what it was at scenario start.

b) U.S. OR GERMAN ASSAULT: The *Assaulting* side wins if at CG-Scenario End its Current-LVP Total is ≥ 20% (FRU, with a minimum increase of 1 LVP) *more* than it was at scenario start, and/or it has amassed ≥ 25% more Casualty VP (see also 8.6032) than the Idle opponent.

EX: If the *Assaulter* Controls *no* LVP Locations at scenario start (regardless of his present CG-LVP Total), he must have a Current-LVP Total of ≥ "1" at CG-Scenario End in order to win the scenario by LVP. If the Assaulter's Current-LVP Total is (e.g.) "26" at scenario start (regardless of his present CG-LVP Total), at CG-Scenario End his Current-LVP Total must be higher by ≥ 6 (i.e., must equal ≥ "32") in order to win by LVP (26 × .2 = 5.2 [FRU] = 6).

8.624 *UNIT SETUP*

8.6241 *ISOLATED UNIT SETUP:* The side that sets up first (8.6233) now sets up all of its Retained units, Equipment and new Fortifications which will go in *Isolated* Locations, after which the other side does likewise. Each Isolated unit/Equipment piece may be set up only in its current Setup Area [EXC: in its current Location and VCA, if an Immobile vehicle; 8.6071]. For Fortifications, see also footnotes "F","i" and "S" in the Fortification Purchase Table (8.621). See also SSR CG7-CG12 (8.4) and SSR KGP8.

Each unit/Weapon that sets up Isolated [EXC: Captured Weapon; A21.11] is automatically affected by Ammunition Shortage (A19.131); if already so affected (e.g., as per 8.618) at start, there is no additional effect. The ID of an Isolated unit/Weapon should be recorded to distinguish it from others not suffering the same penalties. See also SSR CG17 (8.4).

8.6242 *NON-ISOLATED UNIT SETUP:* The side that sets up first now sets up the remainder of its Retained units, Equipment and new Fortifications in eligible Locations of the Setup Area each is Retained in [EXC: each Immobile vehicle must remain in its current Location and VCA (8.6071); for Fortifications see also footnotes "F" and "S" in the Fortification Purchase Table (8.621)]. Record the hex coordinates of new Fortification setup Locations on the CG Roster, in the appropriate line(s) and column(s) under "FORTIFICATIONS". Units/Equipment Retained in a Holding Box are placed in its unshaded portion for entry as reinforcements (see SSR CG15 [8.4] and 8.6206 for radios). See also SSR CG6-CG12, SSR KGP6 and SSR KGP8. Once the side setting up first has completed its setup, the other side follows the same 8.6242 procedure.

8.6243 *RECON INSPECTION:* After all setup is complete (but prior to Bombardment, if any), each side may declare the Location(s) they wish to reconnoiter (8.622), if any. Each reconned Location must be within six hexes of a friendly Setup/Eligible-Entry Area hex. The sides take turns declaring one Location at a time, with the U.S. declaring first. Each hidden unit/Equipment in a reconned Location is placed on-map concealed, and all hidden Fortifications in the Location are revealed [EXC: the type/strength of mines is not revealed; use a Known Minefield counter as per 8.6073]. *All* concealed (including Cloaked/Reserve) units/Equipment therein then lose their "?" (Eliminating Dummies) and the opponent receives Right of Inspection vs the Location (A12.16), regardless of LOS. All units/Equipment in Concealment Terrain in the Location then immediately regain any "?" (but not HIP) they previously had, regardless of LOS [EXC: all Reserve units/Equipment regain their Cloaked Reserve counter (and status), even if not in Concealment Terrain].

8.625 *SCENARIO COMMENCEMENT:* Players are now ready to begin the CG scenario. Each side announces its current SAN. If this is an Assault scenario, the side setting up second always moves first (8.6233). If this is a (day/night) Dual Attack scenario, the side that will move first is determined by the U.S. player making a dr on the following table:

DUAL ATTACK TABLE

dr	Side Moving First
≤ 3	U.S.
≥ 4	German

CHAPTER P FOOTNOTES

1. *1.1 PINE WOODS:* The *KGP* pine woods represents old stands of conifers, where many boughs are above "head" level and in which undergrowth is reduced by the limited amount of sunlight able to filter down to the forest floor.

2. *2.1 SLOPE HEXSIDES:* The normal *ASL* hill rules, having been composed for the smaller hills depicted on the standard 8"×22" mapboards, do not portray the very large *KGP* hills realistically in the sense that the per-level width between Crest Lines effectively creates a series of plateaus (or wide terraces) that greatly restrict LOS between different levels. Slopes were devised primarily to alleviate this plateau/terraced-hillside effect.

3. *2.3 SLOPE LOS & ELEVATION ADVANTAGE:* Giving an Up-Slope unit a ½-level elevation advantage may seem overly complicated, but it in effect allows the unit to see *over* half-level—yet *not* over full-level—obstacles/Hindrances rising from the same Base Level as that unit. The "half-level" Hindrances referred to are brush, bridge, grain, marsh, crag and AFV/wrecks.

4. *2.53 CREST-LINE SLOPES:* The presence of a slope along a Crest-Line hexside sometimes also represents an embankment. These often occurred along the roads, some of which were cut far enough into the hillside that the high-side embankment completely blocked vehicular movement. Since the two embankments along the opposite sides of such a road usually differed significantly in height/steepness, it could not be considered a true sunken road.

5. *3.1 BARBED WIRE FENCES:* Farmers' barbed-wire fences so criss-crossed some of the areas depicted on the *KGP* maps that they had a definite impact on the outcome of several battles. In game terms, it was decided early on to prohibit the elimination of barbed-wire-fence hexsides simply because otherwise the maps would quickly become cluttered with the dozens of counters that would be needed to mark such hexsides.

FOOTNOTES

6. *4.2 STREAM CULVERT:* The Stream Culvert represents a three- to five-foot-wide pipe beneath the road, providing an underground passageway for the stream. Its small size and the continuous presence of cold water in it should make the reasoning behind its many game restrictions and penalties self-evident.

7. *5.1 NARROW STREETS:* The local villages and hamlets had quite a number of narrow streets, which are represented on the *KGP* maps by "hexside roads". Such streets were notorious for restricting the maneuverability of even average-size vehicles.

8. *5.11 ONE-LANE:* Here "road" is defined to mean a string of ≥ one contiguous Narrow Street hexside between the two vertices/hexsides where that string either ends (EX: vertex StO18-O19-N18), joins with two other Narrow Street hexsides (EX: vertex O17-O18-N17), or becomes a non-hexside road (EX: vertex P17-O18-O17). Hence, each of the following constitutes a separate "road" for one-lane purposes: hexsides N17-O18 and N18-O18; hexside N17-O17; hexside O17-O18; hexsides N16-O16 and N16-O17; hexsides N15-O15 and N15-O16; hexside N15-N16 *to* hexside L15-M15 (inclusive); hexside N16-N17 *to* hexside J18-K19 (inclusive); hexside J18-J19; hexside J19-K19—and so on.

9. *5.11 DASHING/ROUTING:* Dashing across/along a Narrow Street is NA mainly to prevent any conflict between the rules for First Fire vs a Dashing unit and those for Snap Shots. Routing along a Narrow Street is NA because a routing unit may not Bypass (A4.3).

10. *6.1 HILLSIDE WALLS & HEDGES; & 7.1 KNOWN MINEFIELDS:* These are essentially reprints of the Hillside Walls & Hedges (F10.) and Known Minefield (F.7-.7C) rules in *WEST OF ALAMEIN*. They are reprinted (and Known Minefield counters are provided) in *KGP I* so that *WOA* need not be a prerequisite for this module.

11. *8.2 MAP GROUP:* Phrases like "per Map Group" and "of that Map Group" might be construed to imply that > one Map Group is being used. This is, of course, not true for CG I-III, but such phrases have been left in the body of the rules in case another CG using all the Map Groups appears in some future edition of the *ASL Annual*.

12. *8.4 SSR CG6c ELIGIBILITY:* If the Germans have no Eligible Entry Area on the "St" or "Ch" Map Group, newly purchased German RG must enter from off-map (representing a relief force attempting to break through to their isolated compatriots). If the same situation occurs on the "Lg" Map Group, newly purchased German RG are instead added directly to a friendly Setup Area (representing units that were already in the pocket but not yet committed to the battle).

13. *8.4 SSR CG20 VIADUCT ENTRY AREA:* Vehicles are prohibited from using this Entry Area on the northern edge of the "Ch" map due to the presence (just off-map) of a very steep embankment beside a set of railroad tracks which cross the Amblève via a narrow viaduct. Infantry were able to traverse the viaduct and embankment with no problem.

14. *8.602g MARKER REMOVAL:* Each unit still hidden at scenario end is placed on-map concealed (in its respective setup Location) so that it cannot "magically" escape from an Isolated Area, and for use in determining Controlled Strategic Locations. As a house rule, such a unit could be kept off-map unless in danger of being Isolated or needed to verify Control of Strategic Terrain. However, if such a unit's Location is later determined to be Isolated or part of an enemy Setup Area, it must immediately be placed on-map concealed in that Location.

15. *8.6044 BOGGED:* Each bogged, non-captured U.S.-color vehicle receives a –1 drm to reflect the greater chance of support being available to aid in its unbogging—and also to help minimize the possible U.S. "sleaze tactic" of intentionally trying to bog a vehicle in the hope that it will become Immobilized, thus forming a Strategic Location.

16. *8.608 PRISONERS:* Prisoners are actually being withdrawn to a holding area. Historically, the Germans kept the U.S. POWs they had captured in Stoumont (as well as all German wounded) at the Château de Froidcour. When the château was abandoned during the night of 21-22 December, most able-bodied prisoners and the German walking wounded were taken to La Gleize; severely wounded men remained at the château in the care of two U.S. medics and a German doctor.

17. *8.6112 CREW COMBINING:* The German side, especially, tends to accumulate "dismounted" vehicle-crews, due in part to less-important Mobile vehicles (e.g., halftracks) being abandoned in order to enable the refuelling of more valuable Out-of-Gas vehicles. Frequently such a crew has also been previously stunned, leaving it marked with a "+#"(Stun) counter when it is not Inherent (D5.34). Even though this counter imparts no penalty to the vehicle-crew counter, it does represent the wounding, incapacitation or death of one or more crewmen. This rule represents the combining of two such crews into one "full" one.

18. *8.6131 VACATED SETUP AREA:* Due to the normally limited visibility conditions, the enemy is assumed not to notice that all friendly units have vacated their positions.

19. *8.6141c U.S. M10 & GERMAN SPW 234/2:* The special restrictions on siphoning gas from and refuelling M10 TD and SPW 234/2 arise from the fact that, unlike all other vehicles used in *KGP*, these two required diesel fuel (see U.S. Vehicle Note 23 and German Vehicle Note 75).

20. *8.6141c GERMAN REFUELLING dr:* This represents the fuel obtained from a Luftwaffe air-drop made on the evening of the 22nd.

21. *8.617 HISTORICAL WEATHER:* During the *KGP* playtest the most commonly asked question about the CG weather was, "Where's the snow?". The answer is that during the period 19-23 December there was none to speak of in the area depicted by the maps. This was due to a thaw that began on 18 December, melting the snow and turning the frozen ground soggy. For several days thereafter, dense mist blanketed the wet battlefield. Gradually it began to thin out (particularly in the afternoons), and on the morning of 22 December an alternating mixture of rain and snow fell. Then, on the night of 22-23 December, a "Russian high" moved in from the east, bringing freezing temperatures, clear skies, and a breeze that dispersed the last of the mist. The temperature was not to rise above freezing again for weeks—and 29 December would bring blizzards and arctic winds.

22. *8.619 RG COUNTERMIX LIMITS:* Normal countermix limits do not apply to RG purchases (including any associated Availability DR for optional armament; H1.41). Players should agree on the substitution of other types for those lacking—or purchase more countersheets.

23. *U.S. REINFORCEMENT GROUP CHART footnote "g", M12 GMC OBA:* On 21 December a lone M12 Gun Motor Carriage (U.S. Vehicle Note 45) appeared at Targnon (off-map to the west of the "St" Map Group) and positioned itself there to fire into Stoumont. After Peiper withdrew to La Gleize the M12 moved to the Château de Froidcour, from where it plastered La Gleize with 196 155mm rounds on 23 December.

24. *SSR KGP13 GERMAN FUEL SHORTAGE:* Some playtesters disliked the "abruptness" with which German vehicles run out of gas, and wondered why its occurrence couldn't be preceded by a "low fuel" status similar to the way Low Ammo (D3.71) works. The reasoning behind the present rule is that, historically, Peiper's vehicles were *already* low on fuel by the 19th, and by the 20th the situation was becoming critical. Hence in game terms players might visualize each German vehicle's fuel gauge as being almost on "Empty" on the 19th, and on or below the Empty mark after the 21st.

25. *SSR KGP13 TCA-CHANGE DRM:* This extra DRM represents the fact that, when the AFV was out of fuel, the turret's electric/hydraulic power-traverse system was inoperable. Hence when the gunner traversed the turret he had to do so manually, using a handwheel —a significantly slower (and more fatiguing) method.

26. *SSR KGP15 U.S. PF:* The 504th Parachute Infantry Regiment had captured an entire truckload of PF in Holland. The firing instructions were translated and disseminated to the men, who then underwent training in the use of the weapon.

27. *8.619 U.S. REINFORCEMENT GROUP CHART; G5 AA SECT; M4 18-Ton High Speed Tractor:* During the war, the U.S. Army desired to have all artillery towed by purpose-built, fully-tracked vehicles, but their supply could never meet the demand. One of the more commonly used types was the M4 18-Ton High-Speed Tractor, which was designed and produced by Allis-Chalmers. Entering production in late 1942, it was used for towing the 3-in. or 90mm AA gun, or (with different ammunition racks and a small swing crane at the rear) the 155mm gun, 8-in. howitzer. The M4 utilized chassis components of the obsolete M2A1 Medium Tank, and was powered by a Waukesha 6-cylinder gasoline engine.

IMPORTANT: Note the existence of a Level 8 Crest Line in "St" hexrows TT28-OO31-MM30-JJ31-JJ32-II33-II34-HH34-HH37-GG38-GG40-HH40-HH47-II48-II54-JJ54-JJ56. Also, the Level 3 Crest Line in StM49 runs into hexes M50 and N50, and thence off-map along the south side of unpaved road N51-O57.

KAMPFGRUPPE PEIPER I CREDITS

DESIGN: Philippe Léonard (with special thanks to Yves Barette and Pedro Ramis)

HISTORICAL RESEARCH: Philippe Léonard, Pat Jonke, Charles Kibler and Bob McNamara

DEVELOPMENT: Charles Kibler and Bob McNamara (with special thanks to Pat Jonke)

SCENARIOS: Philippe Léonard and Charles Kibler

COVER ART: Shin Ueda

GAME ART: Charles Kibler

PLAYTEST-GROUP COORDINATORS: Philippe Léonard, Ronald Berger, Sam Rockwell, Tom Padgett, Steve Porter, Frank Calcagno, Scott Jackson, Eric Weiss, Larz A. Trembach, Robert Weissbard, Tom Glover, Steve Pleva, and Tobias Timm (Special thanks also to Perry Cocke, Vince Frattali, Chuck Goetz, Steve Petersen, Darrell Wright and Brian Youse)

PREP DEPT. COORDINATOR: Lou Velenovsky

PRINTING: Monarch Services

KAMPFGRUPPE PEIPER II CREDITS

DESIGN: Philippe Léonard (with special thanks to Yves Barette and Pedro Ramis)

HISTORICAL RESEARCH: Philippe Léonard, Pat Jonke, Charles Kibler , and Bob McNamara

DEVELOPMENT: Bob McNamara and Gary Fortenberry

SCENARIOS: Philippe Léonard and Yves Barette

COVER and MAP ART: Kurt Miller

COUNTER ART: Charles Kibler and Kurt Miller

PLAYTEST-GROUP COORDINATORS: Pat Flory, Philippe Léonard, Brian Martuzas, Eugene Murrell, Sam Rockwell, Louie Tokarz, Robert Weissbard, (Special thanks also to Kurt Boren, Guy Chaney, Perry Cocke, Jeff Coyle, Vince Frattali, Chuck Goetz, Mike McGrath, Matt Noah, Steve Petersen, Dale Wetzelberger, Darrell Wright and Brian Youse)

PREP DEPT. COORDINATOR: Lou Velenovsky

PRINTING: Monarch Services



Kampfgruppe Peiper II CG Roster



CG: **Side:** **Player(s):** **Victor:**

CG _ = ≡	CG Date	CPP Start	CPP Repl.	CPP Total	Weather (Mist Density)	Moon Phase	RG Purchased (RG ID; CPP cost)	SAN	CPP Spent	CPP Left	Recon # Loc.	Init.	Current LVP CG	Win
	19 Dec AM													
	19 Dec PM													
	19 Dec N					None								
	20 Dec AM*													
	20 Dec PM*													
	20 Dec N*					None								
	21 Dec AM*													
	21 Dec PM*													
	21 Dec N*					None								
	22 Dec AM*													
	22 Dec PM*													
	22 Dec N*†					None								
	23 Dec AM*													
	23 Dec PM*													

Underscored CG Dates indicate that German Fuel Shortage is in effect; see SSR KGP13.
* Once German Ammunition Shortage is in effect (see 8.618), circle that CG Date and all subsequent CG Dates.
† German may make a Refueling dr during the RePh (8.6141c).

✙ Reserves

ID	Unit(s)	Hex	CA

FORTIFICATIONS

Mines Hex	Mines Str.-Type	Mines Hex	Mines Str.-Type	Misc. Fortifications Type	Misc. Fortifications Hex	Misc. Fortifications CA	HIP Locations Unit(s)	HIP Locations Hex	HIP Locations CA	HIP Locations Unit(s)	HIP Locations Hex	HIP Locations CA

Total # of Factors			
A-P:			
A-T:			

Squad:
HS:
Crew:
SMC:

The Avalon Hill Game Company grants permission to photocopy this sheet for personal use.



Kampfgruppe Peiper RG Purchase Record (8.6198)

Fill out one line for each RG purchased

CG: **Side:** **Sheet #:**

CG Date	RG ID	Group Type	#P	#R	Str.	No. Units	SW/Gun Received								Pltn/Sect Leader	Objective Hex	Setup/Entry Area ID
							.50c	HMG	MMG	LMG	MTR	LATW	FT	DC			

Kampfgruppe Peiper II Entry-Area Holding Boxes

P8.15; P8.4 (SSR CG6 & CG21)

Stoumont Map Group

N56	GG1	TT19	TT30	QQ53
La Gleize	**Targnon**	**Theux**	**Monthouet**	**Bois de Bassenge**
Kampfgruppe Peiper **19 AM**	TF Harrison **19 AM**	TF Jordan **20 AM**	TF Jordan **21 AM**	TF Harrison **21 AM**
REINFORCEMENTS	REINFORCEMENTS	REINFORCEMENTS	REINFORCEMENTS	REINFORCEMENTS
EXITED	EXITED	EXITED	EXITED	EXITED

Cheneux Map Group

HH0	TT1	A10	S29
Viaduct	**La Venne Crossroads**	**Rahier**	**Bois de Rahier**
Kampfgruppe Peiper **20 PM** (vehicles NA [SSR CG20; P8.4])	Kampfgruppe Peiper **20 PM**	504th Parachute Inf. Regt. **20 PM**	504th Parachute Inf. Regt. **21 AM**
REINFORCEMENTS	REINFORCEMENTS	REINFORCEMENTS	REINFORCEMENTS
EXITED	EXITED	EXITED	EXITED

La Gleize Map Group

K57	TT47	A46	R0	E1
Roanne	**Borgoumont**	**Roanne-Coo Railway Station**	**Stoumont**	**Château de Froidcour**
Co. L, 117th Inf. Regt., & elements of Co. A, 743rd Tank Bltn. **19 PM**	Co. K, 117th Inf. Regt., & elements of Co. A, 743rd Tank Bltn. **20 AM** TF McGeorge **20 PM**	TF McGeorge **22 AM**	Kampfgruppe Peiper **19 AM** TFs Harrison & Jordan 23 AM	Kampfgruppe Peiper **19 AM** TFs Harrison & Jordan 23 AM
REINFORCEMENTS	REINFORCEMENTS	REINFORCEMENTS	REINFORCEMENTS	REINFORCEMENTS
EXITED	EXITED	EXITED	EXITED	EXITED

The Avalon Hill Game Company grants permission to photocopy this sheet for personal use.

KGP SSR: SPECIAL RULES for all *KGP* Scenarios

(Unless noted otherwise, all SSR below apply in all *KGP* scenarios—both CG and non-CG type)

KGP1. *KGP* MAPS: The five Map Sections included in the *KGP* modules are organized into three Map Groups, as illustrated at right (e.g., the "St" Stoumont Map Group contains two Map Sections, one east and one west, while the "Ch" Cheneux Map Group has only one Map Section). Only Map Sections *within the same Map Group overlap* to form one continuous playing area (e.g., the east edge of the "St" Map Group neither overlaps nor abuts against the west edge of the "Lg" Map Group). Each Map Group's name and ID are derived from the name of its primary village. When the Map Group is not otherwise stated, each *KGP*-map *hex* will be referenced by its two-letter Map Group abbreviation, followed by the hex coordinate (e.g., the Stoumont cemetery occupies hexes StH14 and StI15).



(The Map Groups are shown in their proper geographical relationship)

The colors used to depict the various elevation levels on the *KGP* maps do not in all cases correspond to those on other *ASL* maps. The *KGP* Base Levels range from Level –2 (the Amblève River) through Level 9.

KGP2. EC, WIND & WEATHER: EC are *always* Wet. Through Dec 22 PM, Wind Force is *always* "No Wind" and Gusts are NA; Wind Change DR are still made, but can affect *only* building collapse (B25.66), NVR change (E1.12), Interrogation (SSR KGP18), and whether or not rain starts/stops (or intensifies; E3.51). As of 22 Dec N, there is always a Mild Breeze from the Southeast at scenario start, and Wind Change DR apply in the standard manner. Weather is Clear or Overcast only if so *specified* by SSR, or as per P8.617 or P8.6171.

KGP3. *KGP* MIST: Due to the extremely misty conditions during most of the fighting, the E3.32 Mist rules have been expanded to allow for greater degrees of Mist density, ranging from Very Light to Extremely Heavy, as indicated in the following chart. Mist still affects all levels. Note that Very Light Mist is the same as E3.32 Mist, while Light Mist equates to the effects of "heavy rain" (E3.51). Very Heavy and Extremely Heavy Mist are LOS—not LV—Hindrances.

***KGP* MIST LV DRM CHART**

RANGE:	0-1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	...
V. Light	–	–	–	–	–	–	+1	+1	+1	+1	+1	+1	+2	+2	+2	+2	+2	etc.
Light	+1	+1	+1	+1	+1	+1	+2	+2	+2	+2	+2	+2	+3	+3	+3	+3	+3	etc.
Mod.	+1	+1	+1	+1	+2	+2	+2	+2	+3	+3	+3	+3	+4	+4	+4	+4	+5	etc.
Heavy	+1	+1	+1	+2	+2	+2	+3	+3	+3	+4	+4	+4	+5	+5	+5	+6		
V. Heavy*	+1	+1	+2	+2	+3	+3	+4	+4	+5	+5	+6							
X. Heavy*	+1	+2	+3	+4	+5	+6												

* Treat as a LOS (not LV) Hindrance that neither affects the placement/attack LOS of (A9.22), nor applies as a DRM to (A9.222), a Fire Lane.



MIST DENSITY CHANGE: Whenever rain starts (or intensifies to "heavy rain"; E3.51), the Mist density increases one level ("no mist" would become Very Light Mist, etc.). Conversely, whenever rain stops, the Mist density decreases one level (two levels, if "heavy rain" was occurring). In addition, immediately following each Wind Change DR, a Mist Change DR is made (unless stated as NA) to determine whether the Mist density (if any) changes. There is a –1 DRM to the Mist Change DR in each "PM" scenario. If the Final Mist Change DR is ≤ 3, the Mist density decreases one level (Very Light Mist would become "no mist") [EXC: if it is raining, the Mist density cannot fall below that of the rain's current intensity]; if the Final DR is ≥ 11, the density increases one level. Mist density can never exceed Extremely Heavy. The current Mist density can be conveniently recorded on the Mist Density Track found near each Map Group's CG Turn Record Chart (SSR CG23; P8.4).



AIR SUPPORT: During a *KGP* scenario, the use of Air Support is NA whenever the Mist density is > Light—as well as at night, or if the Weather is *specified* as Overcast. Air Support that is already on-map when the Mist density is/becomes > Light remains available but unusable (and immune to all AA Fire) during that scenario until Mist conditions again allow its use [EXC: while the Mist density is currently > Light, a Recall dr must be made for each group of FB that arrived on-map together; the dr is made during the reinforcement step of the group's ATTACKER RPh, and if it is a 6 that group is immediately Recalled]. Air Support may still be rolled for when the Mist density is > Light, but once it arrives it is treated as per the preceding sentence (including the EXC).

- **KGP4.** TERRAIN: The river is Deep, with a Moderate current flowing in a northerly direction. All streams are Shallow (B20.4) [EXC: the LgA44-M48-U57 stream is Deep]. All bridges are one-lane stone [EXC: LgH46 and LgS55 are one-lane wooden, and entry by vehicles is NA].

KGP5. SOFT GROUND: To reflect the soggy conditions, each vehicle must expend one additional MP per hexside (as per E3.9) unless crossing/traversing a paved-road or stream hexside or entering a building/woods/rubble obstacle. In addition, each Bog Check receives the Soft Ground DRM (D8.21) [EXC: if on a paved road or in a building (D8.21); if crossing a barbed-wire-fence hexside (P3.3)].

KGP6. OFF-MAP ROADS: Any road that exits off-map (i.e., to beyond the printed mapsheet area of the Map Group) is considered for the purposes of A2.51 to extend beyond that map edge either along the same lettered hexrow, or in hexes of the same coordinate, as that edge hex (depending on the configuration of the Map Group's hex grid). The off-map road is considered to be the same (un)paved type as the on-map road hex it connects to. All terrain in the off-map setup area is still considered Open Ground [EXC: half-hexes; A2.51].

EX: On the Stoumont map, a paved road extends off the east edge along hexrows E, J and Q, while an unpaved road extends off the south edge along each hex with a coordinate of 7 or 25.

On the other hand, all *on-map* terrain that is *not* in play in a given scenario *remains in effect* for "offboard" movement/entry purposes during that scenario.



KGP7. SINGLE-LANE ROADS: Each unpaved Sunken Road is a Sunken Lane (B4.43), and each unpaved road in a (normal or pine) woods hex is one-lane (i.e., the restrictions of B6.43-.431 apply as if the road were a one-lane bridge). These two road types are referred to collectively as Single-Lane Roads. P5.122 applies to a vehicle that wishes to change its TCA relative to its VCA while on a Single-Lane Road.

- A vehicle with a +2 Target Size (D1.75) treats a path in a (normal or pine) woods hex as an unpaved one-lane road, even if towing a Gun.

- **KGP8.** CELLARS: The B23.41 Cellar rules apply only to *multi-hex* buildings. An AFV falls into such a cellar (B23.41) on a Bog DR Original colored dr of ≥ 4. Every AFV that sets up in a building must immediately undergo a Secret Bog DR [Exc: A vehicle ending a CG scenario in a building location may set up in that location with the same VCA without a Bog DR].



KGP9. FIRES: Kindling Attempts (B25.11) are NA. Furthermore, due to the extremely wet EC, a Flame (B25.15) can occur *only* in a building/rubble Location.



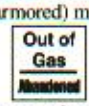
KGP10. BURNT-OUT WRECKS: A Burnt-Out Wreck cannot be Scrounged, set Ablaze or removed from play as per D10.4. A Burnt-Out Wreck is a LOS Hindrance exactly like a normal wreck.


KGP11. SS UNITS: All units in each *KGP* German OB are SS (A25.11), including CG RG and a vehicle's "inherent" Passenger (i.e., German Vehicle Note 58) [EXC: 4-4-7/2-3-7 MMC, and each *MMC* subsequently created from such, are not SS and have a "printed" ELR of "3"]. Each German Depletion number is one > the printed number (C8.2) until Ammunition Shortage applies to the Weapon (A19.131).



KGP12. GERMAN STUN/RECALL: A vehicle of the German OB (including a captured U.S. vehicle) does *not* suffer Recall due to MA disablement. A Recall due to attack effects (D5.341-.342) suffered by a German Inherent crew is always treated as a Stun result *only* [EXC: an armor leader may be Eliminated as per D5.341]; i.e., no Recall ensues. However, the +1 DRM effects of all Stun results vs a German Inherent crew are *cumulative*. In addition, when these total +DRM equal one < the vehicle's CS# (D5.6), its Inherent crew's abilities are limited to those of a SMC crew (A21.22); when the total +DRM equal the CS#, the crew is Eliminated and the vehicle abandoned (leave the "+#" [Stun] counter[s] on the vehicle). Infantry wishing to re-crew that vehicle *during play* must first, using Hazardous Movement in the vehicle's Location (and position—e.g., not in an entrenchment), expend one MF separately to reduce the total "+#" by one; and only when that total "+#" equals zero (or "1" if OT or unarmored) may the vehicle be remanned.





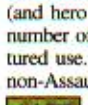
KGP13. GERMAN FUEL SHORTAGE: Commencing on Dec 20 AM, before an *on-map* German vehicle attempts to expend its first MP during its MPh, and whenever it attempts to change its VCA in any other phase, it must first (even before any applicable Stall DR; German Vehicle Note H) make an Out-of-Gas DR [EXC: a *Stopped* vehicle (un)loading, firing armament/sD/sN, or attempting to place smoke grenades (F.10)]; if the Final DR is ≥ 12 the vehicle is out of fuel and thus immobilized; mark it with an "Out of Gas" counter. A +1 DRM applies *per day* after 21 December.[24] If in Motion, the vehicle immediately Stops without expending any MP. If it is the start of the vehicle's MPh and it has not yet expended any MP, its PRC may immediately Abandon-it-(D5.4-.411)/unload if in the present Player Turn it/they have not engaged in (un)loading, firing armament/sD/sN and/or an attempt to place smoke grenades. If the German player forgets to make an Out-of-Gas DR, the U.S. player can thereafter call for it to be made immediately at any time during that MPh as the vehicle expends any MP.

While "out of gas", an AFV with a 75LL/88LL/90L MA, or "T" Type (D1.31) 75/75L/76L MA, has its TH Case A TCA-change DRM increased by one for the "1st Hexspine" adjustment in its TCA (as explained in C5.1; i.e., to +2 for "T" type and +3 for "ST" type).[25]

For the purposes of SSR KGP13, each vehicle in the German OB at the start of the current scenario is considered German during that scenario; i.e., neither a captured German vehicle starting the scenario as part of the U.S. OB (even if recaptured by the Germans during play) nor a U.S. vehicle captured by the Germans during play, is considered German for that scenario.

KGP14. SCHÜRZEN: All PzKpfw IVH and IVJ have Schürzen (D11.2).

KGP15. U.S. CAPTURED PF: Each *non*-Assault-Engineer U.S. 7-4-7 *squad* (and hero created from such a 7-4-7 or its 3-3-7 HS) has an Inherent PF usage number of "1". C13.31 and C13.32-.36 apply normally, with no penalty for Captured use. The number of such PF TH DR made may not exceed the number of non-Assault-Engineer 7-4-7 *squads* in the U.S. scenario OB.[26]


KGP16. U.S. 60mm MTR/OBA: Each 60mm mortar counter may fire WP as if it were 1945. The range of each 60mm OBA module (U.S. Ordnance Note 1) is traced from a separate, secretly pre-recorded edge-hex of an *Eligible* (SSR CG6c; P8.4) U.S.-Controlled Entry Area. 60mm OBA may fire WP, but only one WP Fire Mission if the scenario is ≤ ten turns long or two WP Fire Missions if it is ≥ eleven turns in length. Each 60mm OBA module receives one Pre-Registered hex.

KGP17. GYROSTABILIZERS: Before assigning armor leaders, the U.S. player may make a Secret dr, using the H1.42 table, for *each eligible* AFV to determine if it has a functioning Gyrostabilizer (D11.1).

KGP18. INTERROGATION: Civilian (only) Interrogation (E2.4) is allowed. The Americans are considered to be in a friendly, and the Germans in a hostile, country.

Q. PEGASUS BRIDGE

ORDER OF PRESENTATION:

1. Irrigation Ditches
2. Partial Orchards
3. Slope Hexsides
4. Village Terrain
5. Combination Terrain
6. Towers
7. Barbed-Wire Hexsides
8. Hillside Walls & Hedges
9. PB Campaign Game





1. IRRIGATION DITCHES

1.1 Irrigation Ditches represent narrow, shallow, water-filled channels.[1] Any hex containing one or more solid blue lines is an Irrigation Ditch hex. Hexes FF25, GG26, and GG27 are examples of Irrigation Ditches. Irrigation Ditches are *not* Water Obstacles.

1.2 Irrigation Ditches are neither an obstacle nor a Hindrance to LOS. Irrigation Ditches are considered Open Ground for MF/MP expenditures for scenarios in which Mud weather conditions (E3.64-.65) are in effect [EXC: an Irrigation-Ditch Partial Orchard hex entered across an orchard hexside (5.2;2.2)].

1.3 *TEM:* An Irrigation Ditch has a conditional TEM of +1 which is never cumulative with any other possible TEM. Only Infantry may utilize this conditional TEM [EXC: Infantry manning/Manhandling Guns/Boats never receive the protective TEM benefits of an Irrigation Ditch].

1.4 *MOVEMENT:* Infantry may enter an Irrigation Ditch hex at the COT of the other terrain in the hex *or* it may expend that COT and one additional MF. If it only expends the COT of the other terrain to enter an Irrigation Ditch hex, it may (barring other terrain in the hex) be subject to FFMO (or Interdiction in the RtPh) in that hex during that MPh until Pinned. If an Infantry unit either starts the phase already in an Irrigation Ditch hex or it expends the additional 1 MF when entering the hex, it is considered to be taking cover in an Irrigation Ditch and may claim the conditional +1 TEM (thereby avoiding any FFMO penalties).

1.41 Cavalry entering an Irrigation Ditch hex across a non-road hexside enter at 1 MF plus COT, but never receive any protective TEM benefits from an Irrigation Ditch.

1.42 Guns/Boats may be Manhandled into an Irrigation Ditch hex across a non-road hexside at a cost of 2 MF plus COT.

1.43 Wheeled and horse-drawn vehicles may not enter/exit an Irrigation Ditch hex across a non-road hexside. Tracked vehicles may enter an Irrigation Ditch hex across a non-road hexside by expending 2 MP (3 MP for halftracks) plus the COT of the other terrain in the hex, and making a Bog Check; they must also make a Bog Check if changing VCA while not in a road hex. Additionally, a tracked vehicle that exits[2] an Irrigation Ditch across a non-road hexside must pay 2 MP (3 MP for halftracks) and make a Bog Check *in* the hex being exited [EXC: if the vehicle already expended those MP, and made the Bog Check, for *entering* the hex or if it sets up in that hex].

1.5 *DEEP SNOW:* When Deep Snow (E7.33) is present, Infantry may not benefit from an Irrigation Ditch's protective TEM and the cost for entry across a non-road hexside is always 1 MF plus COT (plus Deep Snow expenditures).

1.6 *PARATROOPS & GLIDERS:* A 5/8" parachute that lands in an Irrigation Ditch hex must take a NMC as per E9.42. Gliders landing in an Irrigation Ditch hex must add a +1 drm to their Crash dr (E8.23).

1.7 *FORTIFICATIONS:* Entrenchments cannot be placed in an Irrigation Ditch hex.

1.8 The Kindling/Spread numbers of other terrain in an Irrigation Ditch hex are reduced by two.



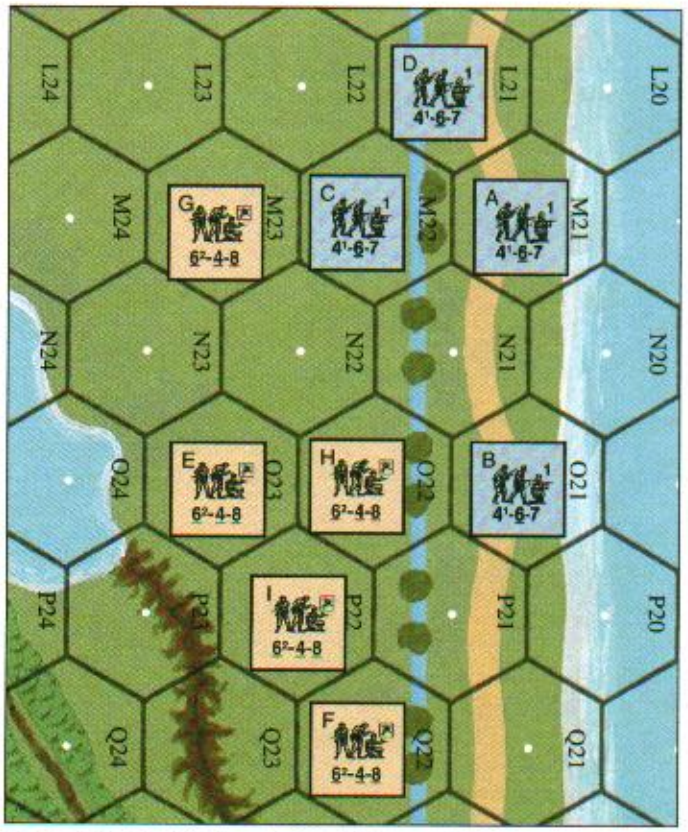


2. PARTIAL ORCHARDS

2.1 Partial Orchards allow for tree-lined roads (akin to B14.6) to exist, but with the trees on only one side of the road.[3] Any whole hex [EXC: a whole hex created by butting two mapboards together] containing only two round, green orchard symbols is a Partial Orchard hex. Hex DD17 is an example of a Partial Orchard hex. All rules pertaining to orchards apply to Partial Orchards unless otherwise stated.

2.2 *LOS:* The orchard obstacle/hindrance of a Partial Orchard hex is *not* Inherent Terrain. A Partial Orchard's effect on LOS/LOF is determined by which of the Partial Orchard's hexsides/vertices are crossed by that LOS/LOF. The three contiguous hexsides closest to the hex's orchard symbols (including the two vertices joining them together) are termed Orchard Hexsides; the three hexsides farthest from the hex's orchard symbols (including their four vertices) are termed Open Ground Hexsides. If a LOS *crosses* one or more of the Partial Orchard hex's Orchard Hexsides, that hex is treated as an orchard hex; for LOS crossing *only* one or more Open Ground Hexsides, that hex[4] is treated as an Open Ground hex.

2.21 Since Partial Orchard hexes are not Inherent Terrain, the orchard obstacle/hindrance in them is treated as Inherent Terrain for LOS *along* a hexside



EX: Squad A's LOS to G is subject to a +1 orchard hindrance (and vice versa), as is the LOS between Squads B and E. Squad A's LOS to I is subject to a +2 orchard hindrance because both Partial Orchard hexes along that LOS are considered to be orchard hexes for that LOS. Since Partial Orchard hexes are not Inherent Terrain, Squad C has an unhindered LOS to F and H. Additionally, because the vertices formed where a Partial Orchard hex's Open Ground Hexsides and its Orchard Hexsides meet are Open Ground, Squad D's LOS to G is unhindered. As per 2.21, there is a +1 orchard hindrance for LOS between Squads B and I. See also the 8.3 example.

EX: As Squad H enters N21 (without expending 1 MF to enter the Irrigation Ditch), it is subject to FFMO for fire from Squads A, B, and D only.

EX: Assuming Mud is in effect, Squad I could expend 1 1/2 MF to enter hex O22 (considered Open Ground for the move), while Squad B would expend only 1 MF to cross the Orchard Hexside into the same hex.

that is common to two Partial Orchard hexes only if that hexside is an Orchard Hexside for *both* of those hexes.

2.3 *MOVEMENT:* For movement purposes when entering a Partial Orchard hex, units are considered to be entering an Orchard hex if they cross an Orchard Hexside, and entering an Open Ground hex if they cross an Open Ground hexside [EXC: OBA, Residual FP and TPBF are resolved as though any target was entering an Open Ground hex regardless of hexside crossed].

2.31 *RIDERS:* AFV Riders may only enter/exit a Partial Orchard hex across an Open Ground hexside (D6.2-.21).

2.4 Partial Orchard hexes are not considered Concealment Terrain for any purpose.

2.5 *AERIAL:* An in-season Partial Orchard hex is considered an in-season orchard hex for Sighting TC (E3.7) purposes [EXC: a target in an in-season Partial Orchard hex receives only a +1 DRM if the aircraft counter's Attack Position is predesignated as entering the target hex through an Open Ground hexside]. A glider landing in a Partial Orchard hex receives a +1 Crash drm, but only if landing across an Orchard hexside.

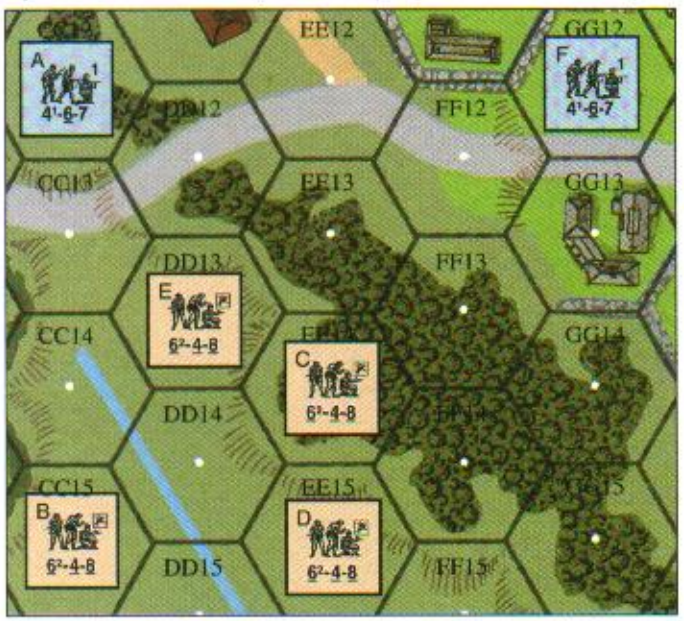


3. SLOPE HEXSIDES

3.1 A slope hexside[5] represents an undulation in the terrain substantial enough to give an Up-Slope (3.2) unit a LOS advantage. On the *PB* map a slope hexside is represented by brown hash-marks along that hexside (EX: PBK5-L5). The entire hexside (inclusive of vertices) marked by a slope, but *not* the slope artwork itself, is considered part of that slope hexside.

3.2 *UP-SLOPE/DOWN-SLOPE:* A Location whose hex contains ≥ one slope hexside is either Up-Slope or Down-Slope to LOS drawn across that hexside to or from that hex. If the slope lines are *in* the Location's hex, the Location is defined as being Down-Slope across that hexside; if the lines are in an adjacent hex along the hexside common to both hexes, the Location is Up-Slope across that hexside. A Location can be both Up- and Down-Slope across two different slope hexsides.

3.3 *LOS:* Slopes are neither obstacles nor Hindrances.[6] Being Up-Slope affects LOS *only* in that an Up-Slope Location is treated as being ¾ of a level higher than normal to LOS that *begins or ends* in that Location *and crosses* an Up-Slope hexside of that Location. Thus, barring other obstructions to LOS, an Up-Slope unit—even if not in a hill Crest-Line hex—can trace a LOS across an Up-Slope hexside of its hex to a lower elevation (i.e., across a hill Crest Line) and/or over (B.4) obstacles and Hindrances whose topmost obstacle/Hindrance height is < the Up-Slope elevation of the viewing unit



EX: Squad A has a LOS to B, D, and E unaffected by slopes and can see F because the latter is Up-Slope. An AFV/wreck in DD14 would Hinder the LOS of squads B and E--but not squad A--to squad D. Squad B can see all squads depicted. Squad F can see A and B, but C, D, and E are in the one-hex blind zone created by the woods.

[EXC: entrenched LOS restrictions would still apply as per B9.21, as would wall/hedge TEM as per B9.3]. Otherwise, being Up-Slope or Down-Slope *itself* has no effect on LOS (e.g., slopes are ignored if the LOS goes *through* their hex or *along* their hexside, and also when calculating an A6.41-.43 increase or decrease in the number of Blind Hexes caused by an intervening obstacle). Being Up-Slope *itself* can neither grant HA nor allow an Up-Slope unit to make a HD attempt. The presence of ≥ one slope hexside does *not* change the elevation of that hex's Base Level.



3.31 *FIRE LANE:* For the purposes of Fire Lane LOS/LOF drawn across ≥ one slope hexside, assume that the term "same-level" means "same-Base-Level". See also 3.42 and its example.

3.4 *COVER:* A slope can, in certain instances, provide a +TEM (3.41) or a +DRM (3.42).

3.41 *DIRECT-FIRE TEM:* Ground-level Infantry in a hex containing ≥ three (or two non-contiguous) Down-Slope hexsides may claim a +1 slope TEM vs Direct Fire [EXC: FT], provided the attack originates from a non-adjacent firer whose elevation advantage (if any) over that of the target is < the range of the attack *and* the attacker's LOS crosses ≥ one of the target hex's Down-Slope hexsides. (A.5 applies to a FG attack.) Slope TEM is cumulative with no other +TEM [EXC: Mud/Deep-Snow TEM]). Being Up-Slope *itself* provides no TEM, does not negate the FFMO/FFNAM DRM, and does not affect Wall Advantage rules.

EX: See the 3.3 illustration, and assume the following attacks are Small Arms. Squad E can claim slope TEM if fired on by squad A or D, but not if fired on by squad B (whose LOS does not cross a Down-Slope hexside of DD13). Likewise, squad C could fire on adjacent squad E with no slope TEM and could claim the -1 FFMO if otherwise applicable, as could squad B. If squad E is fired on by squads C and D as a FG, squad E can claim slope TEM (A.5).

3.42 *FIRE-LANE DRM:* Infantry being attacked by a Fire Lane receives a +1 Fire Lane slope DRM if the firer is Up-Slope from, ¾ of a level higher than, and not adjacent to, that target [EXC: if the Infantry is attacked by a Fire Lane *Snap Shot* (A9.221), the DRM applies only if these three conditions apply to *each* of the two hexes that form the Snap Shot hexside, as determined by the firer's separate LOS to each of them]. An Up-Slope attacker's Fire Lane cannot affect a target that lies at a different Base Level (see 3.3) from that of the attacker.

EX: See the 3.3 illustration and assume squads A and D each have a MG. If squad D places a Fire Lane counter in hex CC12, all moving Infantry in DD14, DD13, CC13, and CC12 (or EE14, DD13, DD12, and CC12; A9.221) can be attacked by that Fire Lane with no slope DRM (since squad D is not Up-Slope from any of those Locations), although Infantry moving in DD13 would get the slope TEM (3.41). If squad A places a Fire Lane counter in EE15, all moving Infantry in CC13 (or DD12) can be attacked by that Fire Lane with no slope DRM (since those hexes are adjacent to the firer) but moving Infantry in DD14 and EE15 would receive the slope DRM, while moving Infantry in DD13 would receive both the slope DRM and slope TEM (3.41). Moving Infantry in EE14 (assuming there is a LOS) would not receive the slope DRM because CC12 is not Up-Slope to EE14, nor (for the same reason) would the slope DRM apply to Infantry attacked by a Fire Lane snap Shot at hexside DD14-EE14.

3.5 *ENTRY:* A unit crossing a slope hexside that it is Down-Slope from is moving Up-Slope. A unit crossing a slope hexside that it is Up-Slope from is moving Down-Slope.

3.51 *MF COST/BONUS:* Infantry/Cavalry (or a Wagon) must expend ½ MF + COT in order to move Up-Slope. Infantry on skis would receive a ½-MF bonus for each Down-Slope hexside they cross (cumulative with any bonus received for moving to a lower elevation). Crossing a slope hexside while moving on a road does not negate the B3.4 MF road bonus.

EX: See the 3.3 illustration. Squad D must pay 2 1/2 MF to enter hex EE14 (2 [COT] + 1/2 [moving Up-Slope] = 2½); if it were also crossing a Crest Line up to Level 2 the cost would be 4 1/2 MF (2 [COT] x 2 [ascending across a Crest Line] + 1/2 [moving Up-Slope] = 4 1/2). Squad C could expend 1 MF to enter DD14, since there is no additional cost to move Down-Slope. If, however, it had Rained (E3.54) or there were Ground Snow (E3.723), squad C would expend 2 MF to enter DD14 (2.54).

3.52 *MP COST:* A unit that expends MP must pay one MP + COT in order to move Up-Slope.

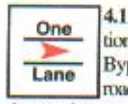
3.53 *CREST-LINE SLOPE:* No vehicle (or charging cavalry) may cross a combination Crest-Line-slope hexside (EX: B16-B17).[7]

3.54 *RAIN/SNOW:* When crossing a slope hexside, E3.54 (or E3.723), if otherwise in effect, applies just as if the moving unit *is* changing elevation (in addition to any application of that rule due to crossing a Crest Line).

4. VILLAGE TERRAIN



4.1 *NARROW STREET:* A Narrow Street is represented on the *PB* map by a road depiction overprinting ≥ one hexside (EX: hexside PBK13-L12).[8] A Narrow Street can be paved or unpaved.



4.11 *MOVEMENT:* A Narrow Street is always one-lane (i.e., the restrictions of B6.43-.431 apply as if that "road" were a one-lane bridge).[9] A unit Bypassing along a Narrow Street hexside is always assumed to be on the road within its hex—and, if that hexside is also a Crest Line hexside, in the *lower* of those two hexes. VBM along a Narrow Street is allowed regardless of hexside-to-obstacle clearance (D2.3), and costs *half* the normal Bypass MP expenditure [EXC: VCA change (D2.33) remains one MP (MF for a Wagon)]. Infantry/Cavalry Bypassing along a Narrow Street pay normal Bypass MF costs, but can still (as could a Wagon) qualify for the MF road bonus (B3.4). Contrary to the B3.4 example, a unit moving along/across a Narrow Street hexside cannot enter an obstacle at the road MF rate. Dashing (A4.63) across/along, as well as routing along, a Narrow Street is NA.[10] SMOKE in *either/both* of the two ground-level Locations common to a Narrow Street hexside adds an extra MF/MP to the cost of using Bypass along that hexside [EXC: if the hexside is also a Crest Line hexside, only SMOKE in the *lower* hex can do so].

EX: See the 4.141 illustration. If squad G Bypasses along Narrow Street hexside K13-L12 (+1 MF for crossing the roadblock), it must still expend two MF to enter building K12 even though part of that Narrow Street extends into K12. The same would be true if squad G moved from L13 into the K13 building.

4.12 *MOVEMENT RESTRICTIONS:* The following movement-related restrictions apply on a Narrow Street (see also 4.141):



4.121 *TCA:* A turreted vehicle with a MA Caliber Size of ≥ 50mm *and* a Barrel Length of other than "*" may be Non-Stopped on a Narrow Street only if its TCA coincides with its VCA or "rear" VCA.

4.122 *TCA CHANGE:* A vehicle with a MA Caliber Size of ≥ 50mm attempting to change its TCA relative to its VCA while on a Narrow Street must first make a Final TCA-Change dr of ≤ 3. (See also 4.121.) A maximum of two such dr per vehicle may be made per phase. In its MPh, each failed TCA-change attempt costs the vehicle two MP. Only the following cumulative drm can apply:

+2 "LL" Barrel Length	+x Armor Leader modifier
+1 "L" Barrel Length	–1 "*" Barrel Length
+1 If BU	

4.123 *VCA CHANGE:* A motorcycle may expend 1/4, while a very small (D1.75) Target Size vehicle may expend 1/2, of its printed MP allotment to change its VCA 180° while on a Narrow Street. No other vehicle type may change its VCA [EXC: as per D2.33], nor may any vehicle change its VCA as part of a Motion attempt (D2.401), while on a Narrow Street.

4.124 *TOWING:* A vehicle towing a Gun or trailer *may* use VBM along a Narrow Street unless otherwise prohibited. However, such a Gun cannot be unhooked while in Bypass during play. A trailer may be unhooked while in Bypass during play (and is eliminated for all purposes thereafter), but only by the crew of the vehicle towing it.

4.125 *(UN)LOADING:* PRC may (un)load (and their possessed 76-107mm MTR [C10.1] may be "[un]hooked") from/onto a vehicle on a Narrow Street into/from either/both of the ground-level Locations forming that hexside.

4.126 *RUBBLE/BLAZE/WRECK:* All Bypass along a Narrow Street hexside is NA if either/both of the *hexes* forming that hexside contain(s) another vehicle/wreck in Bypass along that hexside, a Blaze counter [EXC: burning wreck along *another* hexside], and/or a Rubble counter. No wreck (or Immobile vehicle) on a Narrow Street may be removed as per D10.4.

4.13 *ATTACK EFFECTS:* The following special cases apply to attacks by/vs a firer/-target in Bypass on a Narrow Street (see also 4.141-.142):



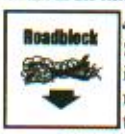


4.131 *SMOKE/RESIDUAL-FP:* SMOKE/Residual-FP in *either* of the two ground-level Locations common to a Narrow Street hexside can affect a unit in Bypass along that hexside. However, if *each* such Location contains SMOKE/Residual-FP of a different strength from that in the other Location, only the *higher* amount applies. [EXC to both: If that hexside is also a Crest Line hexside, the SMOKE/Residual-FP in the lower-Base-Level hex applies.]

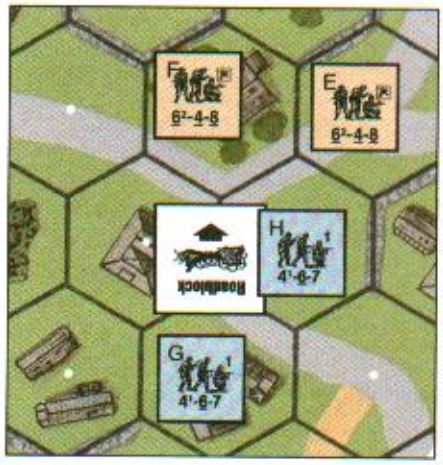


4.132 *CC:* A vehicle on a Narrow Street is subject to Street Fighting (A11.8) when attacked in CC (including CC Reaction Fire) if its attacker occupies the ground level of a building in one of the two hexes common to that Narrow Street hexside. A +1 DRM applies to all CC CMG attacks by a vehicle currently in CC/Melee on a Narrow Street.

4.14 *FORTIFICATIONS:* Fortifications not normally allowed in a paved road hex may be placed in a hex with ≥ one paved Narrow Street hexside unless prohibited by other terrain in the hex.



4.141 *ROADBLOCK:* A roadblock may be placed "across" a Narrow Street by setting up the counter so that it straddles, with its arrow pointing to a *vertex* of, that hexside. For LOS and movement purposes, the roadblock is considered to extend from center dot to center dot of the two hexes formed by that hexside. A Narrow Street roadblock cannot convey Wall Advantage, provides *no* TEM vs Indirect Fire or Residual FP, and prohibits VBM *along* the straddled hexside. As a non-Bypassing unit *crosses* a hexside that is straddled by a Narrow Street roadblock, it must declare a vertex of that hexside in order to establish, vs any ensuing Snap Shot, which "side" of the roadblock it is on (thus determining whether it will be able to claim the roadblock's protective benefits vs that attack).



EX: A roadblock has been placed in hexes L12-K13, with its arrow pointing toward the L12-K13-K12 vertex. Since the roadblock is considered to extend from the center dot of L12 to the center dot of K13, squads F and G have *no* LOS to each other (B9.2), and squad H can claim neither roadblock TEM nor Wall Advantage if fired on by squad F. Squad G must also expend one MF to cross the roadblock if it Bypasses directly to vertex L12-K13-K12 (the two MF being expended simultaneously).

Squad H may enter K12 (whether entering or Bypassing the building) without the roadblock affecting its entry cost. If it directly enters building K13, its owner must declare if it crossed the hexside on the vertex L12-K13-K12 or L12-K13-L13 side of the roadblock; if he chooses the latter, an ensuing Snap Shot conducted by squad F (or by any other unit—including one in Bypass at vertex L12-K13-K12—whose LOS to vertex L12-K13-L13 first crosses the roadblock) will be subject to the roadblock's TEM. If squad E enters L12 by Bypassing along Narrow Street hexside L12-K12, each ensuing attack vs it [EXC: Indirect Fire] at vertex L12-K12-K13 by any unit whose LOS to that vertex first crosses the roadblock will likewise be subject to roadblock TEM.

4.1411 *REMOVAL:* Clearance attempts vs a Narrow Street roadblock can be made only from any of the four ground-level Locations that touch the straddled hexside. A unit wishing to use a DC to eliminate a Narrow Street roadblock must occupy one of the three hexes that form a vertex of the straddled hexside, and must declare the attempt to eliminate it. The DC is then Placed/Thrown/Set vs that *vertex*, and can affect nothing but the roadblock when it detonates. Direct Fire ordnance can eliminate a Narrow Street roadblock only if the firer has a LOS to the entire straddled hexside and declares the roadblock as its sole target prior to firing; the attack can affect nothing but the roadblock. Indirect Fire HE eliminates a Narrow Street roadblock with the proper result vs *either* of the two ground-level Locations that form the straddled hexside. B29.5 applies otherwise unchanged.



4.142 *MINES:* All mines set up in a hex that contains ≥ one *paved* Narrow Street hexside must be placed on-map revealed (i.e., with the type and strength of that minefield displayed) unless all the Narrow Street hexsides of that hex are also Crest Line hexsides formed by lower-Base-Level hexes. The removal of such revealed mines as per B28.53 is NA. Mines in *either* of the two hexes common to a Narrow Street hexside (or in both such hexes, if one contains A-P mines and the other A-T mines) can possibly affect a unit using Bypass along that hexside; however, if *each* such hex contains mines of the same type but of a different strength from that in the other Location, only the *higher* strength can be used to attack the Bypassing unit. [EXC to both: If that hexside is also a Crest Line hexside, only the mines in the lower-Base-Level hex are used.]

EX: See the 4.141 illustration, and assume that L13, K13, and K12 contain A-P minefields of six, eight and twelve factors respectively, which have to have been set up revealed. Any unit Bypassing along the L13-L12 Narrow Street hexside, regardless of which hex that unit occupies, will be attacked by the six-FP L13 minefield. A unit Bypassing along the K12-K13 Narrow Street hexside would undergo the twelve-FP attack of the K12 minefield. Note that mines set up in DD11 (not shown) could use HIP since its sole Narrow Street hexside is unpaved.



4.15 *RUBBLE:* Placing a Rubble counter in a *hex* that contains a Narrow Street hexside eliminates any roadblock across that hexside, affects all units/Equipment (see 9.2 definition) currently in Bypass (in either/both hexes) along that hexside as if they were hit by falling rubble (i.e., as per B24.121), and eliminates all mines along that hexside (in both hexes).





4.2 *STEEPLE:* A building hex with a black center dot in a white cross (EX: PBII13) denotes a church with a Steeple Location in that hex—i.e., an additional building Location, with an inherent stairwell leading to it from ground level, above what would other-

wise be the highest building Location of that hex. Except as stated otherwise, a Steeple Location is treated as a normal building Location [EXC: it cannot be Fortified, has no Rooftop Location, and the +1 drm for stone rubble determination (B24.11) is NA]. Each building Location in the hex beneath the Steeple Location is a normal building Location in all respects.

4.21 *STACKING:* A Steeple Location has a normal stacking limit (A5.1) of one HS-equivalent. No Gun may be set up in a Steeple Location.





4.3 *SINGLE-HEX TWO-STORY HOUSE:* A building with a *large* white center dot (EX: PBZ13) is a 1½-level LOS obstacle with both a ground- and first-level Location and an inherent stairwell. Like a Single Story House (B23.21), it has no Rooftop Location. In all other respects it is a normal building.

5. COMBINATION TERRAIN

















5.1 *TERRAIN COMBINATIONS:* Some hexes on the *PB* map contain combinations of two terrain types that are not normally found in the same hex. For these combinations, all rules for both individual terrain types apply normally. (The terrain effects of both terrain types are cumulative as per B.1.) The existing rules for these situations are further clarified below.

5.2 *IRRIGATION-DITCH PARTIAL-ORCHARD HEX:* A unit that enters an irrigation ditch across an orchard hexside (EX: PBPP16-QQ17) and that pays the additional MF to claim the conditional +1 TEM expends 2 MF to do so. A fully-tracked vehicle entering an irrigation ditch across a non-road orchard hexside pays 3 MP (4 MP for a half-track).

5.3 *STREAM-PARTIAL-ORCHARD HEX:* A unit enters a stream-partial-orchard hex (EX: PBP17) across a stream hexside at the normal stream cost. If entering across an orchard hexside, movement costs are cumulative (e.g., 4 MF to enter a shallow stream-partial-orchard hex). All rules for Crest Status (B20.9) apply in a stream-partial-orchard hex [EXC: Good Order Infantry may gain Crest status in such an Accessible hex, along the non-stream partial-orchard hexside they cross, at a cost of 2 MF]. The orchard terrain rises (to its normal height) from the Crest level of—not from IN— the stream hex.

5.4 *BUILDING-ORCHARDS:* The entry COT for a Building-Orchard hex (EX: PBZ14) prior to any further modification for Infantry is 3 MF and that for vehicles is 1 MP plus normal building COT.

5.41 Units may bypass the building obstacle (unless otherwise prohibited; A4.3, D2.3-.31) by moving through the orchard portion of the building-orchard hex and in such case would not be subject to FFMO.

5.42 A LOS *through* a building-orchard hex (i.e., a LOS that is not blocked by the building) is subject to the normal orchard LOS rules (B14.2-.21).

5.43 The TEM of a building-orchard hex is +2 or +3 according to the type of building in the hex and it does not apply to a unit in Bypass.

5.44 The Kindling Number of a building-orchard hex is 7 or 8 according to the type of building in the hex; EC DRM do not apply to Kindling attempts. A building-orchard hex's Spreading Fire Number is 9 and EC DRM *do* apply to the Spreading Fire DR provided that the spreading fire is not from a Flame in that hex, nor from a directly attached building. The -1 DRM for a Fortified Building applies to all Kindling/Spreading-Fire DR if the building Location is fortified.

5.5 *BUILDING-ROAD:* Hexes PBW18 and PBX18 are unique in that each contains a building with a road running *through* the hex.[11] For all purposes, the building is treated as a normal single-story house (B23.21) and the road is treated as a Narrow Street (4.1) that runs along hexsides X18-X19 and W18-W19 [EXC: The TCA change restrictions of 4.121-.122 do not apply; instead, a vehicle using VBM along these Narrow Street hexsides may never have its own hex within its TCA. LOS to units on the road is always traced to its center dot (or as per A4.132), not to its vertex, although the building depiction *can* block such LOS. Vehicles move directly from hexside X18-X19 to hex PBY18 (and vice versa) and from hexside X18-X19 to hexside W18-W19 (and vice versa)].

5.6 *SLOPES & ORCHARDS:* Because an Up-Slope unit is treated as being at a different elevation than its Base Level (3.3), in-season orchards are same-level LOS *obstacles* to units in hexes with the same Base Levels as those orchards if the unit is Up-Slope to the target.





6. TOWERS

6.1 Towers represent tall, narrow building-like structures that contain an upper level Location with no ground level Tower Location (although the *hex* contains a Location at ground level).[12] Towers are represented by an obviously round, single-hex structure containing a white, square stairwell symbol (EX: PBC9). A Tower (but not the ground level Location of its hex) is treated as a wooden building unless otherwise stated.

6.2 The height and LOS charactistics for each Tower are specified by SSR. Towers will be defined by SSR as being either an LOS Obstacle *or* Hindrance. Each Tower contains only a single Tower Location that exists at a Level above ground level which is specified by SSR; the Tower Obstacle/Hindrance height is 1/2 Level above the SSR designated Tower Location height.

EX: An SSR that reads, "Hex PBC9 contains a Tower Hindrance with a Tower Location 1 Level above ground level," describes a 1 1/2 Level LOS Hindrance.

6.21 *STACKING:* The stacking capacity of a Tower hex's ground level Location is unaffected by the presence of the Tower. A Tower Location has a normal stacking limit (A5.1) of one HS-equivalent and 5PP. Towers have no Rooftop Locations and may never be fortified.

6.3 *TEM:* A unit at the ground-level Location of a Tower hex is considered to be occupying the other terrain in that hex and so uses the TEM of that other terrain. A Tower Location has a TEM of 0, although units therein are eligible for the +1 Height Advantage TEM. Units entering a Tower hex/Location are never subject to FFMO.

6.31 *AIR BURSTS:* Locations of a Tower that are in a woods hex are subject to Air Burst TEM only if those Locations are not higher than the top-most Level of those woods.

6.4 *MOVEMENT:* The cost for Infantry to enter the ground level of a Tower hex is 1 MF plus COT. Cavalry may only enter a Tower hex using bypass movement. A Gun may neither set up in nor enter, nor may a dm 76-82mm mortar be assembled in, a Tower hex/Location.

6.41 Vehicles must use VBM to enter a Tower hex. Fully-tracked, BU, CT, AFV may also enter the Tower obstacle as per B23.41 [EXC: a Tower has no cellar and adds an extra -1 drm to the colored dr of the AFV's Bog Check as though the tower was a single story building].

6.42 Infantry may move to/from a Tower Location via the Tower's stairwell or by Scaling (B23.424). Movement along a stairwell costs 1 MF per Level changed and is subject to movement penalties for Snow. A unit may never end its MPh in an intermediate stairwell Location (i.e., it must end its MPh either in the Tower Location or in the Tower Hex's ground level Location).

6.43 Infantry moving to/from a Tower Location via the Tower's stairwell may be attacked at ground level (if descending) and/or the Tower Location (if ascending) in the normal manner. If there is a second-level Location, however, they may also be attacked at the first-level "quasi-Location" of that hex by a unit that has a LOS to that quasi-Location. Such a quasi-Location is not considered Open Ground, but such an attack vs it receives no TEM. The target is assumed to expend one MF per level changed; if pinned or broken while at that quasi-Location it reverts to the level it was attempting to *leave* (and may be attacked by any Residual FP at that level as it re-enters it). The Residual FP left by an attack vs such a quasi-Location remains at that level (place the Residual FP counter on the appropriate Level counter) to attack each unit subsequently entering that level in that hex during the same MPh.

6.5 *CONCEALMENT:* The other terrain in a Tower hex determines whether or not the ground-level Location of that hex is Concealment Terrain. A Tower Location is treated as a building Rooftop (SSR PB7; B23.82) for HIP/concealment purposes (only).

6.6 *ROUT:* A Tower hex/Location is not considered a building for rout purposes.

6.7 The ground level Location of a Tower hex is not considered a building Location for Victory purposes, but any Tower Location is.



7. BARBED-WIRE FENCES

7.1 A barbed-wire fence is depicted by a series of small black Xs overlaying a hexside (EX: PBS11-T11). Barbed wire is neither an obstacle nor a Hindrance, provides no TEM, does not negate the FFMO/FFNAM DRM, and cannot be Cleared or eliminated in any way.[13]

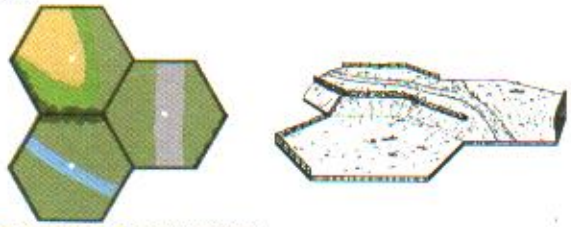
7.2 *MF COST:* Infantry must pay one MF + COT to cross a barbed-wire-fence hexside, unless using Armored Assault or moving within a trench or tunnel (in which case only the COT applies). The cost for Cavalry is two MF + COT. No Wagon, ridden bicycle, Infantry on skis, or currently-CX Infantry/Cavalry/horse may cross a barbed-wire-fence hexside. All barbed-wire-fence hexside MF costs are doubled at night. A Straying unit required, but unable, to cross a barbed-wire-fence hexside becomes TI instead.

7.21 *TEMPORARY BREACH:* A non-Straying, Good Order Infantry MMC neither beneath an Entrenchment/Pillbox nor above a Wire counter may create a temporary breach in one barbed-wire-fence hexside of its hex by expending two MF in its MPh while at ground level in (but not IN) that hex. Place the top edge of the MMC counter over the selected barbed-wire-fence hexside and mark the unit TI. For as long as that MMC remains TI, unpinned, and in Good Order, it is considered to be using Hazardous Movement but that hexside's barbed-wire cost for Infantry [EXC: if broken, berserk, Manhandling, or part of a Human Wave] becomes ½ MF. (A vehicle crossing that hexside would still be subject to Bog as per 7.3, but would not affect that hexside's temporarily-breached status.) Creating a temporary breach in barbed wire is a concealment-loss activity (A12.141).

7.3 *MP COST & BOG:* Barbed wire has no effect on MP costs; however, no motorcycle may cross a barbed-wire-fence hexside. Each vehicle that enters a new hex by crossing a barbed-wire-fence hexside must undergo a Bog DR, in addition to any other Bog Check required for entry of the Location. If it Bogs, it is left in the hex it was attempting to enter. (If it Bogs twice, due to both crossing a barbed-wire-fence hexside *and* other terrain in the hex, mark it with a Mired—not a Bog—counter.) The only DRM that can apply to a barbed-wire Bog Check are:

+1 Vehicle is not fully-tracked;
+2 Vehicle has Truck-type MP expenditure.

7.4 *BYPASS:* The barbed-wire-fence *artwork* (i.e., the small black Xs) along such a hexside has no effect on a unit's normal ability (if any) to Bypass along that hexside.

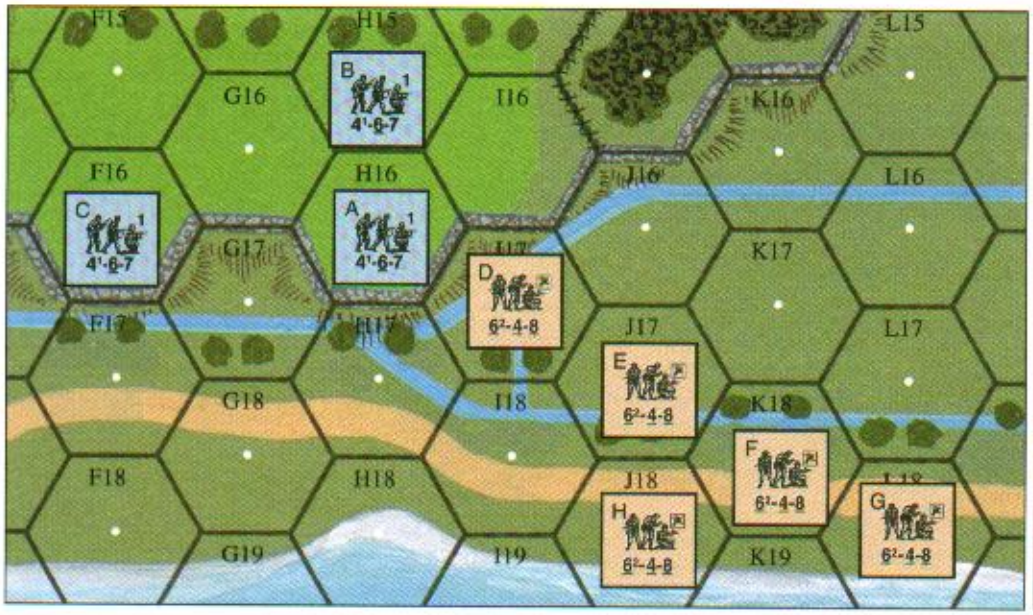


8. HILLSIDE WALLS & HEDGES

8.1 A Hillside wall/hedge[14] is one which lies along a hexside that is common to two adjacent hexes with different Base Levels, with none of the lower Base-Level's terrain appearing between the wall/hedge depiction and the higher Base-Level's terrain depiction. An example of a Hillside hedge is PBX16-X17; an example of a Hillside wall is PBN11-N12. All normal wall/hedge rules apply to Hillside wall/hedges except as modified herein.

8.2 *LOS:* A Hillside wall/hedge (including both its depiction and its associated hexside; B9.1) is ignored when determining whether or not a LOS exists between units whose elevations differ by ≥ one full level [EXC: a unit entrenched behind a Hillside wall/hedge still has its LOS restricted as per B9.21]. It is likewise ignored when determining the number of Blind Hexes created by a Crest Line. If a hill Crest Line ends at a Hillside wall/hedge, *the line along which the hill depiction meets the wall/hedge depiction* is considered to be the actual Crest Line.

8.3 *ELEVATION, TEM & WALL ADVANTAGE:* A Hillside wall/hedge is always at the *higher* of the two Base Levels it lies between, and is treated as a normal wall/hedge



EX: Only squad A can claim Wall Advantage across hexside H16-I17. Furthermore, squad D can never receive any benefit from the hillside wall along that hexside, as it is lower than that wall.

EX: The following serve to further illustrate various LOS possibilities with Hillside hedges/walls, slopes, and Partial Orchards.

Squad A has a LOS to squads B, C, D, and H, but not to squads E, F, and G (which are blocked due to the blind hexes caused by hexes I17, J17, and K18 being treated as orchard hexes (2.2)–the latter two hexes because hexside J17-K18 is a Partial Orchard hexside of both hexes). If squad A were entrenched, it would have LOS only to squads B and D.

Squad B has a LOS to squads A and C.

Squad C has a LOS to squads A, B, D, and H. If squad C were entrenched, it would have a LOS only to squad B.

Squad D has a LOS to all squads except B, and its LOS is subject to a +1 orchard hindrance to F and +2 to G.

Squad E has a LOS to all squads except B and C, and its LOS is subject to a +1 hindrance to G.

Squad F has a LOS to squads D, E, G and H; its LOS to D is subject to a +1 orchard hindrance.

Squad G has a LOS to squads D, E, F, and H, and its LOS is subject to a +1 orchard hindrance to E and +2 to D.

Squad H has LOS to squads A, C, D, E, F, and G, none of which are hindered.

when calculating the TEM of targets at ≥ the wall/hedge's base elevation. However, a unit at any level *lower* than that on which a Hillside wall/hedge sits never receives *any* benefit (including Wall Advantage; B9.32) from that wall/hedge hexside. A unit in Crest status may claim Wall Advantage over a Hillside wall/hedge that forms a hexside of that unit's hex only if both are at the same elevation and on the same side of the Depression. Otherwise, a unit's inability to claim Wall Advantage over a Hillside wall/hedge hexside does not prevent it from claiming Wall Advantage over another wall/hedge hexside, provided the unit meets all the other B9 criteria for doing so.

9. PEGASUS BRIDGE CAMPAIGN GAME

9.1 *INTRODUCTION:* The Pegasus Bridge (PB) Campaign Game offers two or more players a series of interrelated scenarios dealing with the seizing and holding of the Canal bridge in the Bénouville area of France on D-Day of the Allied Overlord campaign. Using this system, up to eight separate scenarios may be played, each simulating a portion of the actual battle.

9.11 *BETWEEN SCENARIOS:* Between each of the scenarios, players make use of a special CG phase called the Refit Phase (RePh) wherein each side takes stock of what has happened and prepares for further combat in the next scenario. The British player may receive reinforcements during the RePh, while the German player may purchase Reinforcement Groups (RG) using Campaign Purchase Points (CPP).

9.12 *CASUALTIES:* Casualties suffered in a CG scenario, as well as those suffered in the ensuing RePh through CG-Scenario End (defined in 9.2), should be placed in the appropriate on-map box since amassed Casualty VP (A26.2) totals are used to determine CG Scenario Loss Points (9.6162).

9.13 *CG ROSTER AND RG PURCHASE RECORD:* The enclosed printed copies of the PB "CG Roster" and "RG Purchase Record" should be photocopied and used by players to record important CG information.

9.2 *DEFINITIONS*

CG: Campaign Game.

CG Date: Each CG Date takes place on June 6 1944, and has a unique title. The titles are Night I, Night II, Night III, Dawn, Day I, Day II, Day III, and Dusk.

CG End: The CG-Scenario End (see definition below) that occurs in the Dusk CG Scenario, if one side concedes CG victory, or if one side meets its CG Victory Conditions.

CG Roster: The sheet used to record information for each CG Date. During the RePh, one line is filled out for each CG Date. Players are urged to photocopy the one provided herein.

CG-Scenario End: Occurs when both the CG scenario being played and the ensuing RePh step 9.603 have been completed.

Coy (Company): A CG RG organization type.

CPP (Campaign Purchase Points): Used by the Germans for purchasing RG in RePh step 9.617.

CPP Entry Cost: The value listed in an Entry Arrow which is added to the cost of a German RG so that that Entry Arrow becomes Enterable by that RG.

Depleted: A German RG received at < Full Strength (see definition below).

Eliminated: Units/Equipment/Fortifications/RG "Eliminated" in a CG are removed from that side's OB (i.e., are not Retained). A vehicle/(Burnt-Out)-wreck that is Eliminated while on-map is removed from the map.

Enterable: A hex/Location that the unit in question could enter (disregarding its occupation by a Fortification/enemy-unit) during a hypothetical MPh/APh. If defined in relation to a Setup/Entry Area (or to a "path" of hexes drawn to/from/between such), the hex/Location must be Enterable along that "path." A terrain-Blaze hex is not Enterable.

Entry Area: Each map-edge hex that contains a large arrow with a red background color, plus each edge-hex within four hexes of that hex. The Nationality symbol(s) in the arrow indicate(s) if the Entry Area is British/German. See SSR CG5 (9.4).

Equipment: Any SW/Gun/Vehicle that can be part of a side's OB. Any counter that can be Portaged/driven/Manhandled about on the map.

Escape: The RePh process by which a unit attempts to exit an Isolated Location, No Man's Land, an enemy Setup Area, or Uncontrolled Territory that it cannot remain in, to a friendly Setup Area or Eligible Entry Area; 9.606.

FPP (Fortification Purchase Points): Used to purchase Fortifications in RePh step 9.619.

Front-Line Hex: A Setup-Area hex that shares ≥ one hexside with ≥ one hex of an enemy Setup-Area/No-Man's-land/Uncontrolled-Territory hex.

Full Strength: A RG received *in toto*.

Initial Scenario: The first scenario of a CG. A CG's Initial Scenario gives each side's setup/entry restrictions, starting OB (possibly including predetermined RG, units, and a pool of CPP/FPP to spend on additional RG/fortifications), and SSR applicable only to that Initial Scenario.

Isolated: A unit/Weapon in a friendly Setup-Area Location from which it cannot trace a path of contiguous, Enterable, Uncontrolled-Territory/friendly-Setup-Area Locations to a friendly Entry Area (if German), or to a landed but not wrecked glider and/or the PBZ28 Entry Area (if British). See 9.6052, 9.6057, and 9.62021.

No-Man's Land: A *non*-Strategic Location within two hexes of both friendly- *and* enemy-Controlled Strategic Locations; 9.6051.

OB (Order of Battle): All units, Equipment, Fortifications, and RG of a side that are eligible to participate in the next CG scenario.

Pltn (Platoon): A CG RG organization type.

RePh (Refit Phase): The series of steps performed after each CG scenario. All Chapter Q rules beginning with 9.6 are PB CG RePh rules/steps.

Retained: All units, Equipment, and RG in a side's OB that are available for setup/entry in the next CG scenario; i.e., all Initial-Scenario OB-given/purchased units/Equipment (or all units/Equipment remaining available from the previous scenario of the CG), all RG purchased, and all reinforcements received since the previous (if any) scenario of the CG. In PB, such a unit/Equipment is required either to be set up in the Setup Area it was Retained in [EXC: Shift] (9.6055) or to enter at an Eligible Entry Area if Retained off-map; e.g., a unit ending a CG scenario in a friendly Setup Area must begin the next CG scenario in that same Setup Area.

RG (Reinforcement Group): Usually a number of units/Equipment purchased, as a group, for use in the CG as additions to a side's OB. Also includes FPP.

RG Purchase Record: The sheet used to record the units-in/information-for each CG RG type (see 9.6178). One line is filled out for each RG purchased. Players are urged to photocopy the one provided herein.

Setup Area: Each Strategic Location Controlled by a side, plus each *non*-Strategic Location within two hexes of such a Strategic Location but not within two hexes of an *enemy*-Controlled Strategic Location (i.e., not a No-Man's-Land hex; 9.6051). Each such *non*-Strategic-Location hex must also be Enterable by *Infantry* from ≥ one Strategic Location of that Setup Area. Friendly Setup Areas that touch/overlap are treated as a single Setup Area, provided that ≥ one of the touching/overlapping hexes is Enterable by Infantry from the other Setup Area. For an Initial Scenario, see also 9.5.

Shift: The RePh process by which a Retained unit attempts to exit its current Setup/Entry Area to another friendly Setup Area or Eligible Entry Area; see 9.613.

Strategic Location: Each building/rubble/bridge/entrenchment/pillbox/landed-but-not-wrecked-glider Location, and each Location occupied by a non-Abandoned Immobile vehicle with functioning MA and/or by an unhooked non-malfunctioned Gun, is a Strategic Location.

Strength: An I or V type RG is received at Full or Depleted Strength; see 9.6181.

Uncontrolled Territory: All *non*-No-Man's-Land hexes that are part of *no* Setup Area; i.e., are > 2 hexes from all Controlled Strategic-Location hexes.

Weapon: Any SW/Gun/Vehicular-armament using the IFT/TH table(s) to cause damage to the opponent.

9.3 *THE CG SCENARIOS:* The parameters of the CG Scenarios are given in 9.5-.52. The CG continues until the CG End (9.2). Each side's initial Setup Area(s) for a non-Initial CG scenario is determined by the Strategic Locations Controlled by both sides at the previous CG-Scenario End.

9.31 *CG BALANCE PROVISIONS:* Should each player wish to play the same side (A26.5), the following Balance is used throughout each CG:

German: All 9.61741 CPP Entry Costs with a printed cost > 0 are reduced by two.

British: All British Airborne non-prisoner MMC are Fanatic (A10.8) when in a stone building Location.

9.4 *CAMPAIGN GAME SPECIAL RULES:* The following CG SSR apply only in the PB CG scenarios and RePh:

CG1. *MAP:* Each CG Scenario uses the entire PB map.

CG2. *PB SSR:* All PB SSR (see the flip-side of scenario PB6) are in effect except as amended below.

CG3. *ELR/MASSACRE:* Each side's ELR listed in SSR PB12 is also treated as that side's ELR for all scenarios of that CG [EXC: in the event of a Massacre, all effects listed in A20.3-.4 are applicable for the remainder of the CG].

CG4. *CG NIGHT SCENARIOS:* The initial Base NVR of the Night CG scenarios is 2 hexes regardless of whether the NVR changed in a prior CG scenario. Rather than the provisions of E1.21, a German unit gains Freedom of Movement only if attacked by other than a Sniper *or* if it has both seen a Known Enemy unit and an enemy unit moves/advances/routs within three hexes of it [EXC: if an AFV with a radio is allowed to move, all other friendly Mobile AFV (and their PRC as long as they remain PRC) with a radio may also]. Only German units with Freedom of Movement may fire at distances of ≥ 6 hexes.

CG4a. CG Date Night I: The British are the Scenario Attacker, the Germans are the Scenario Defender.

CG4b. CG Date Night II: The Germans are the Scenario Attacker. Although the Germans set up on-map, they may be cloaked at the German player's option. No German unit south of hexrow CC has Freedom of Movement [EXC: those units which gained Freedom of Movement during CG Scenario Night I]. The British are the Scenario Defender, although they have Freedom of Movement. It is important to note that during a RePh, No Move markers are not removed, thus units south of hexrow CC which are on a No Move marker may not change locations during that RePh.

CG4c. CG Date Night III: The Germans are the Scenario Defender and the British are the Scenario Attacker. All German units have Freedom of Movement.

CG5. *ENTRY AREAS:* A large red arrow denotes the center hex of each *nine-hex-wide* Entry Area. If it is a British Entry Area, the arrow contains a British rondel and the CG Date in which the Entry Area is available for entry. If it is a German Entry Area, the arrow contains a German cross and a CPP Entry Cost. All German Entry Areas are available for use, however certain Entry Areas require an additional expenditure of CPP for each RG which wishes to enter there (9.61741).

CG6. *RG SETUP/ENTRY:* Each RG listed in an Initial Scenario's OB is available for on-map-setup/entry as specified below. If set up on-map, units/Equipment of a RG must be set up in the friendly Setup Area they are Retained in (or as defined by Initial Scenario setup restrictions). All other units/Equipment enter on/after turn 1; if they set up off-map during the RPh (A2.51) but do not enter that same Player Turn, they are unavailable for use during the remainder of the current CG Scenario. Such units are, however, Retained for the next CG Scenario. All units/Equipment of the same RG must *initially* either be set up in the same Setup Area or enter at any hex(es) of the same Entry Area. Equipment of a just purchased RG must *initially* be possessed by a unit of that RG.

CG7. *OPTIONAL VEHICULAR EQUIPMENT:* All German PzKpfw IVH are equipped with Schuerzen. Optional AAMG must be rolled for individually (H1.41). If so equipped, no additional CPP cost is assessed.

CG8. *ABANDONMENT:* A Retained vehicle may begin a CG scenario abandoned, but the resulting crew counter must begin that CG scenario in the same Setup/Entry Area as the vehicle it came from.

CG9. *STATUS MARKERS:* During its setup, each side may opt to secretly record the BU, CE, TCA, bogged, Immobilized, abandoned, malfuctioned, and/or disabled status of its vehicles/Guns in lieu of placing the appropriate marker(s) on them. Place the actual marker(s) when the piece is non-concealed and within 16 hexes of any enemy ground unit which has LOS to it.

CG10. *CONCEALMENT:* Each Infantry unit (and its possessed Equipment) setting up in concealment terrain may be set up concealed, regardless of enemy LOS. Vehicles may not be concealed unless out of enemy LOS. Such "?" need not be purchased; i.e., each is placed freely. Otherwise, A12.12 applies in the normal manner. Eligible units may be concealed prior to the opponent viewing the setup. For purposes of "?" placement, all Locations outside the LOS of all opposing Setup Area Locations are considered concealment terrain. "?" purchased in the RePh and those received at night (E1.2) are used as Dummies.

CG11. *GUNS:* Each non-vehicular Gun that ended the last CG scenario on-map must be set up within three hexes of the Location in which it ended that scenario [EXC: the German 50L AT in X20 may never move during the CG]. No Gun may be towed [EXC: CG Scenario Dusk].

CG12. *GERMAN PF:* For each CG scenario, the number of PF initially available to the German side is 1/2 times the number of German *squads* set up on-map.[15] During play, whenever ≥ one *squad* enters as a reinforcement, the number of available PF is immediately increased by 1/2 per such squad. (To indicate an extra "1/2 PF", move the PF Remaining marker halfway into the next box of the PF Usage Track; a "1/2 PF" does not itself entitle the German to a PF attempt.)

CG13. *SNIPERS:* During each dawn/day/dusk CG Date, the German SAN is immediately increased by two while the Germans Control the building in II13.[16] The German SAN is immediately reduced by two while the British Control building II13; the German SAN can be increased to, but not beyond, "7."

Each side must use *two* Sniper counters. Each Sniper counter must be set up initially as per the first two sentences of A14.2, but with ≥ 10 hexes between them (or as far apart as possible if they cannot set up ≥ 10 hexes apart); when a Sniper attack can occur, make a dr to randomly determine which one actually attacks (assign numbers so that each has an equal chance). The SAN is never altered by the presence of > one friendly Sniper in play simultaneously. Any result (e.g., Pin) affecting a Sniper counter affects all friendly Snipers. See also 9.6122.

CG14. *TERRAIN CHANGES:* Each alteration of printed terrain that occurs during a CG is permanent, barring subsequent Clearance/removal (as applicable). All Fortifications, Rubble, Breach, Trailbreak, Shellhole, and (Burnt-Out) Wreck counters are left on-map from scenario to scenario (unless removed due to a Blaze or falling rubble, etc.; for Wrecks, see also the 9.2 definition of "Eliminated"). Each terrain Blaze is resolved in RePh step 9.609-.6095 (see SSR PB9). No Wreck is removed from play due to being in a terrain Blaze, it remains on-map (still treated as a LOS Hindrance), and in RePh step 9.6091-.6093 it becomes/remains a Burnt-Out Wreck [EXC: 9.6095]. Whenever a vehicle is Immobilized, Abandoned, and all of its present Inherent Weapons are disabled (or it has no Inherent Weapons), it is immediately replaced by a Burnt-Out Wreck. Whenever a non-Burnt-Out Wreck is Scrounged (if it had any Scroungable Weapons), it is immediately replaced by a Burnt-Out Wreck. Regardless, vehicles which have no Wreck depiction can *never* turn into a (Burnt-Out) Wreck.

CG15. *MAP EXIT:* Each German Personnel/Equipment piece that exits the map via a Friendly Entry Area during play cannot re-enter the map during that scenario but is Retained for use during the next CG scenario. However, each such broken Personnel unit must take a NTC (a Good Order leader's DRM can apply) immediately upon exiting; failing this NTC causes Casualty Reduction (if it is Eliminated, so is its possessed Equipment). Everything exited at any other location during play is Eliminated.

CG16. *RETAINED RG:* Regardless of whether it was used during a CG scenario, each purchased/OB-given RG is Retained until Eliminated in a CG scenario. Each unentered RG (or part thereof) is Retained.

CG17. *WALKING WOUNDED (WW) MMC:* Each RePh, the British player may replace a portion of eliminated Airborne MMC with Walking Wounded MMC.[17] During play, each non-Wounded British Airborne MMC removed due to "Double Break" (A10.3), Casualty MC (A10.31), or Fate (A10.64) should be placed in the WW box on the map. In step 9.6102, for every squad equivalent of the same type (FRD) in the WW box, the British player receives one MMC of the same type in any non-Isolated Setup Area. Each such MMC should be marked with a "Walking Wounded MMC" counter to reflect its status. A WW MMC has a 3 MF allotment which cannot be increased for any reason [EXC: while being carried by any form of conveyance], its IPC is reduced to 2, and it receives a +1 DRM for all CC attacks it makes while all CC attacks made against it receive a −1 DRM. Under no circumstances may a WW MMC become unwounded. A HS created from a WW squad is marked with a Walking Wounded MMC counter and suffers all the penalties associated with that status. Any SMC created by a WW MMC is not initially wounded. Two WW HS may Recombine into a WW squad per A1.32. If a non-Wounded HS and a WW HS Recombine, the resulting squad is considered WW and is marked as such.

EX: The British player has two 6-4-8s, a 4-5-8, a 2-4-8, and three 3-3-8s in the WW box during the RePh. He may now place three 6-4-8s and a 4-5-8 (or their equivalents), each marked with a WW counter, in any non-isolated Setup Area.

CG18. *DAWN/DUSK:* A +1 LV Hindrance applies to all non-CC attacks for the duration of the Dawn CG scenario. During the Dusk CG scenario, on a WC DR ≤ the current Turn Number, a +1 LV Hindrance will apply to all non-CC attacks for the duration of the Dusk CG scenario.

CG19. *GAME END:* A Turn Record Chart is printed on the map. Each CG scenario has a variable Game Turn Length. At the end of each Player Turn of Turn 5, and at the end of each Player Turn thereafter, the ATTACKER makes a Game End dr; if the result is ≤ the circled number in the current Turn's box on the CG Turn Record Chart, the scenario ends immediately. Additionally, a CG scenario ends immediately if both the ATTACKER and DEFENDER agree to end the scenario.

9.5 *INITIAL SCENARIO:* The special information needed to play the Initial Scenario for CGI and CGII is provided in 9.51 and 9.52, respectively. For each Initial Scenario, the German player begins with RePh step 9.6178 (RG Purchase Record) and completes RePh steps 9.6178-.62023 (these steps are preceded by a "!" in the RePh Sequence; 9.6).

9.51 PB CAMPAIGN GAME I: COUP DE MAIN

CG LENGTH: A CG scenario is played for all eight CG Dates in this CG (Night I, Night II, Night III, Dawn, Day I, Day II, Day III, and Dusk).

CG VICTORY CONDITIONS: The Germans win at any Dawn, Dusk, or Day CG Scenario End if they Control Pegasus Bridge (PB SSR 4), *or* if they have a Good Order German MMC ≤ 3 hexes from the TT12-LL11-JJ12-II12-EE12-Y13-Y28-Z28 road at CG End, *or* if the British do not have ≥ 8 VP worth of non-Airborne 6-4-8s/3-3-8s east of the Canal at the Day II CG-Scenario End while having lost ≤ 20 CVP of the non-Airborne 6-4-8s/3-3-8s during that scenario.[18]

INITIAL-SCENARIO SETUP SEQUENCE: German sets up first; British moves first.

INITIAL GERMAN OB:

Elements of Grenadier Regiment 736, Infanterie Division 716 [ELR: See SSR PB12] set up within 4 hexes of Y19 (see SSR I-2): {SAN: 2}

RG: Garrison Pltn (Full) 50L AT 1+3+5 Pillbox
RG: Garrison Pltn (Depleted) 1-2-7 Trench (x3)
Wire (x3)

Elements of PanzerPionier Kompanie 2 set up in building Locations within 4 hexes of M12:
RG: PzPionier Coy (Depleted)

Elements of PanzerPionier Kompanie 1 set up in/Adjacent to building Locations within 4 hexes of JJ12:
RG: PzPionier Coy (Full)
RG: Lt Tank Pltn II (Roll as per 9.6181)

Elements of the Fallschirmjäger Regiment 6 (Ind.) [ELR: 4] enter Uncloaked on Turn 2, with all Personnel as Passengers, on hex TT12 having expended 18 MP (see SSR I-6):
2-3-8 8-1 Kfz 1 (no AAMG)

INITIAL BRITISH OB:

Elements of Companies B and D, 2nd Oxfordshire and Buckinghamshire Light Infantry [ELR: See SSR PB12] enter by Glider (E9.) on Turn 1 (see SSR I-3 and I-4): {SAN: 2}

6-4-8 (x3)	4-5-8 (x3)	2-4-8 (x3)
9-2	8-1	8-0 (x2)
LMG (x2)	PIAT (x3)	
51 MTR (airborne)	Glider (x3)	

INITIAL-SCENARIO SPECIAL RULES:

The following SSR apply during the Initial Scenario

I-1) There is no Wind Change DR made during the first RPh. Night Rules are in effect (CG SSR4). See PB SSR.

I-2) All German Infantry units must set up in building/Gun/Fortification Locations with ≤ 1 MMC per Location. The pillbox must be set up in Z21 (CA: Y22/Z22); no Wire counters may be set up in a paved-road/bridge hex. No Fortification/Gun may set up HIP. The 50L AT and 1-2-7 crew must set up in hex X20, the Gun is Emplaced but is unpossessed at start.

I-3) All initial ILH (E8.2) must be east of the canal, ≤ 2 hexes from at least one other initial ILH.

I-4) Each glider must contain one 2-4-8.

I-5) During the British Player Turn 1, the German player may conduct only TPBF attacks. Only *German* leaders may fire starshells; the hex containing a leader that is attempting starshell placement need not be disclosed unless that attempt is successful.

I-6) When there are no Passengers in the Kfz 1, it is marked with an Abandoned counter; when so marked it may neither move nor change CA.

9.52 PB CAMPAIGN GAME II: HOLD UNTIL RELIEVED

CG LENGTH: A CG Scenario is played for five[19] CG Dates in this CG (Dawn, Day I, Day II, Day III, and Dusk).

CG VICTORY CONDITIONS: The Germans win if at any CG-Scenario End they Control the Pegasus Bridge (PB SSR 4), *or* if they have a Good Order German MMC ≤ 3 hexes from the TT12-LL11-JJ12-II12-EE12-Y13-Y28-Z28 road at CG End, *or* if the British do not have ≥ 8 VP worth of non-Airborne 6-4-8s/3-3-8s east of the Canal at the Day II CG-Scenario End while having lost ≤ 20 CVP of the non-Airborne 6-4-8s/3-3-8s during that scenario.

INITIAL-SCENARIO SETUP SEQUENCE: British sets up first; German moves first.

INITIAL BRITISH OB:

Elements of 7th Battalion, 5th Regiment, 6th Airborne Division [ELR: See SSR PB12] set up as follows: {SAN: 3}

Set up on/between hexrows K and Q in hexes numbered ≥ 8 and ≤ 18:

6-4-8 (x7)	3-3-8
9-2	8-0
LMG (x2)	PIAT (x2)
51 MTR (airborne)	? (x6)

Set up within 5 hexes of BB16:

6-4-8 (x7)	? (x8)
9-1	7-0
LMG (x2)	PIAT (x2)

Set up on/between hexrows U and AA in hexes numbered ≥ 10 and ≤ 18:

6-4-8 (x8)	? (x10)
10-2	8-0
LMG	PIAT

Elements of Companies B and D, 2nd Oxfordshire and Buckinghamshire Light Infantry set up within 5 hexes of Y21, east of the canal:

6-4-8 (x4)	4-5-8 (x4)	2-4-8 (x3)	2-2-8 (x2)
9-2	8-1	8-0 (x2)	
LMG (x3)	PIAT	51 MTR (airborne)	
German LMG	German MMG	57L AT (x2)	

Set up in any Friendly Setup Area:
30 FPP

Set up emplaced in X20 above the trench (see SSR I-2):
German 50L AT

INITIAL GERMAN OB:

25 CPP

Elements of PanzerPionier Kompanie 2 [ELR: See SSR PB12] set up on/between hexrows A and J in hexes numbered ≤ 18: {SAN: 4}
RG: PzPionier Pltn (Full)

Elements of PanzerPionier Kompanie 1 set up in/Adjacent to building Locations on/north-of hex grain EE1-EE11-FF11-FF12-HH13-HH14-JJ15-JJ17-KK18-TT17:

RG: PzPionier Coy (Depleted)
35-S 739 (f)

INITIAL SCENARIO SPECIAL RULES:

The following SSR apply during the Initial Scenario

I-1) See PB SSR.

I-2) Place the following fortification counters prior to setup. One 1+3+5 pillbox in hex Z21(CA: Y22/Z22); one trench each in W21, X20, Z21; and one Wire each in hexes W21, X21, Z21. Place a Burnt-Out wreck in hex Y14.

9.6 *REFIT PHASE:*

The following steps (9.601-9.620) are performed simultaneously by each side during the RePh, which occurs after each CG scenario. Each step (and substep) must be carried out in the numbered/lettered order given; those not applicable to the current situation may be omitted (e.g., if there are no Flames/Blazes on the map, skip RePh step 9.609). Those steps listed below preceded by a "!" are the only steps to be completed before setting up to play a CG *Initial Scenario*. Those preceded by a ">" are the only steps necessary to achieve CG-Scenario End after the last Player-Turn CCPh.

RePh Sequence

>9.601 Conclusion of Melee

>9.602 Marker Removal

>9.603 Rally and Unloading

9.604 Encirclement, Minefields, Bog, and Shock

9.605 Setup Area Determination

9.606 Escape

9.607 Equipment Possession and Hidden Fortifications

9.608 Prisoners

9.609 Extinguishing Flames and Blazes

9.610 Wounded Leaders and Walking Wounded MMC

9.611 Recombining and Battle Hardening

9.612 New CG Date and SAN Adjustment

9.613 Shift

9.614 Equipment Repair and Replenishment

9.615 OB Given Reinforcements

9.616 CPP Replenishment

!9.617 Purchasing Reinforcement Groups

!9.618 RG Strength, Quality, Weapons, and Leaders

!9.619 Purchasing Fortifications

!9.620 Scenario Commencement

9.601 *CONCLUSION OF MELEE:* First, each unit currently on a Climb marker must be placed in either the Location it was attempting to reach or the Location it left when it began to climb, at the owner's choice. If the Location the unit is placed in contains an enemy unit(s), mark them all with a *Melee* counter.

All opposing units in the same Locations are now assumed to be in *Melee*, and must undergo an (unlimited) number of Melee rounds until no more CC attacks can be made. Such units are free to perform any/all normal CCPh activities associated with Melee (i.e., attack, Capture, Withdrawal, etc.). Consider the side that moved first in that scenario to be the ATTACKER. Following the conclusion of the first round of RePh Melee in a Location, each still-hidden/concealed unit therein is revealed, each pinned unit therein becomes unpinned, each CX counter is removed, each vehicle currently in Motion therein has its Motion counter removed, and each Stun counter on a vehicle therein is flipped over to its "+1" side (the vehicle is still subject to Recall, if applicable, and may be marked as CE if so desired).

9.6011 *ORDER OF RESOLUTION:* Resolve all Melees in alphanumeric sequence (e.g., A1, then B16, then B17, then C19, etc.).

9.602 *MARKER REMOVAL:* All markers/counters listed below are removed from the map at this time (Right of Inspection does *not* apply to revealed stacks):

a) SR and FFE counters;

b) SMOKE counters;

c) Acquired counters;

d) DM, Disrupted, Fanatic, Berserk, Wall Advantage, HD markers, Dummy Stacks, Dummy Cloaking Counters, and "?";

e) CX, Motion, CE, BU, and Labor markers;

f) All hidden/Cloaked units, entrenchments and Equipment are placed on-map in their present Location[20] (other still-hidden Fortifications need not be revealed at this time);

g) Sniper counters;

h) If the next CG Scenario is Night III, all No Move counters are removed.

9.603 *RALLY AND UNLOADING:* All currently broken units of both sides automatically rally, even if Disrupted. No DR are made. All Passenger/Rider Personnel and Equipment are then unloaded into their vehicle's Location (a unit unloading into an A-P minefield is not immediately attacked, but 9.6042 will apply). When step 9.603 has been completed, CG-Scenario End has occurred.

9.604 *ENCIRCLEMENT, MINEFIELDS, BOG, AND SHOCK*

9.6041 *ENCIRCLEMENT:* Each Encircled unit [EXC: prisoner] must take a separate 1TC (leadership DRM may apply if present and at owner's choice). If it passes its 1TC, it remains in the present Location (Encircled markers are not removed until 9.6062). Failing the 1TC results in the unit's immediate Elimination [EXC: Encircled Vulnerable PRC of an Immobile vehicle are Eliminated, leaving the vehicle abandoned]. British Airborne units failing this TC are *not* placed in the Walking Wounded Box. Each prisoner that an Eliminated Encircled unit was Guarding must, if possible, be claimed by another unit in that Location friendly to the Eliminated unit. If the prisoner is not claimed, it is considered Rearmed (A20.551) and may automatically possess any Equipment dropped by its Eliminated Guard. Otherwise, any Equipment that an Eliminated Encircled unit possessed is left in the Location unpossessed.

9.6042 *MINEFIELDS:* Each Mobile vehicle (and its Vulnerable Inherent crew, if required; B28.43) in any type of minefield undergoes the appropriate type(s) of mine attack(s), fully resolved in the normal manner, as if it is attempting to exit the minefield Location [EXC: if the crew breaks, it is unloaded in *Good Order* into the minefield's Location]. Each Infantry unit in an A-P minefield *hex* (including a crew that just unloaded due to a minefield attack) must take a NTC (leader's DRM can apply); failure of the TC causes Casualty Reduction. [EXC to both: A unit theoretically able to exit the minefield *hex* without being attacked by the mines *and* without having to enter a minefield/enemy-Controlled Location need not take the NTC.] In all cases, each surviving unit must remain in its respective Location in that minefield hex until its Setup Area is determined in 9.605-.606.

9.6043 *BOG:* Each non-abandoned, bogged/Mired vehicle must undergo ≥ one Bog Removal attempt (D8.3) until it is either unbogged or immobilized (MP expenditure is immaterial). If Vehicle Note L applies to the vehicle, one squad-equivalent (as explained in the Note) in its Setup Area may be used to claim the -2 (-1 per crew or HS) drm to the colored dr of its Bog Removal DR.

9.6044 *SHOCK/UK:* Each Shocked/UK AFV must undergo ≥ one recuperation attempt (C7.42) until either the marker is removed or the AFV is Eliminated.

9.605 *SETUP AREA DETERMINATION:* Each side now determines its Setup Area(s) for the next CG scenario.

Each side may, at any time during/after a CG scenario, place a friendly Location Control marker (supplied in the *PB* counter mix) in a Strategic Location that it currently Controls, especially if that Location's Control might become disputed at some later point. A Control marker must be removed (or flipped over) if the Controlling side loses Control of that Location. A non-Strategic Location may still be Controlled (as per A26.11-.12), but does not receive a Control marker.

A Setup Area may currently contain no units, but can still have friendly units Shifted into it unless it is Isolated.

9.6051 *NO MAN'S LAND:* As each side determines its Setup Area(s), there will be portions of the map where two opposing Setup Areas "overlap." A *non-Strategic Location* within two hexes of both friendly- *and* enemy-Controlled Strategic Locations is a No-Man's-Land hex. A No-Man's-Land hex can *never* be part of a Setup Area. A Strategic Location can never be No Man's Land (though it can be Isolated). Each manned, Immobile vehicle without functioning MA in No Man's Land becomes abandoned, and its crew (if any) must attempt Escape as per 9.606. See also 9.6056 and 9.6072.

9.6052 *ISOLATED UNIT:* An Isolated unit/Weapon is one in a friendly-Setup-Area Location from which that unit (or, for a Weapon only, a hypothetical Infantry MMC)

would be *unable* to trace a path of contiguous, Enterable, Uncontrolled-Territory/-friendly-Setup-Area Locations to an Eligible *Entry* Area or, for the British, a landed, unwrecked glider. See 9.6057 for upper-building-level Isolation, 9.606 for Escape requirements, 9.62021 for setup restrictions and penalties. See also 9.6056.

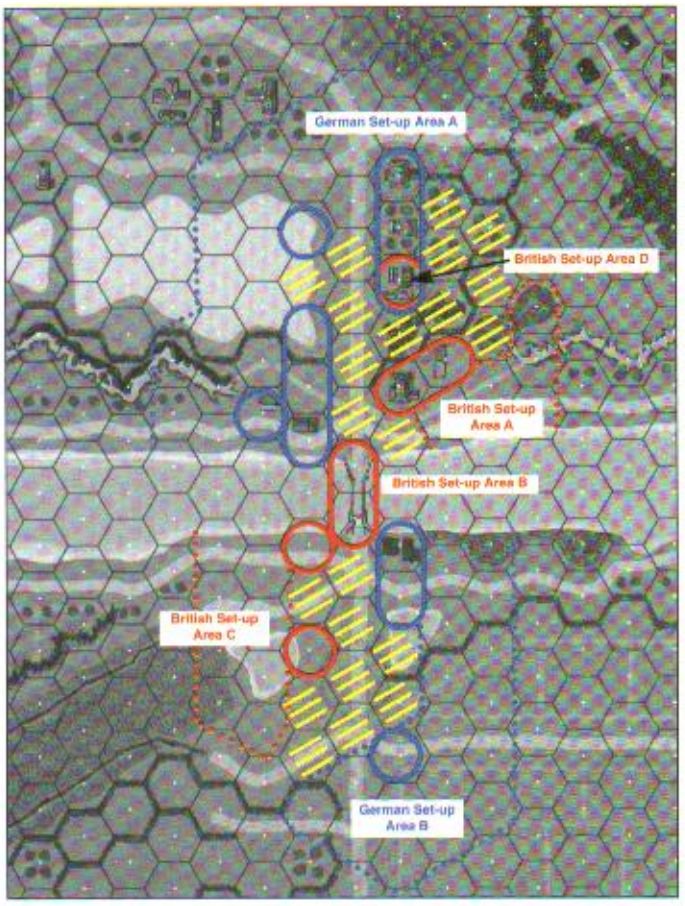
9.6053 *UNCONTROLLED TERRITORY:* Uncontrolled Territory refers collectively to all hexes that are neither No-Man's-Land nor part of either side's Setup Area (i.e., ≥ three hexes from all Controlled Strategic Locations). Each Personnel/Mobile-vehicle unit (and its portaged/possessed/towed Equipment) in an Uncontrolled-Territory hex at scenario end is Retained into the nearest (along the shortest path of contiguous, Enterable, Uncontrolled-Territory hexes) friendly Setup Area (even if Isolated) or Eligible Entry Area; unit's owner's choice of Area if equidistant. Each Personnel/Mobile-vehicle unit unable to trace such a path is required to attempt Escape (9.606). Each Immobile vehicle without functioning MA becomes abandoned, and its crew (if any) is then either Retained (if it can trace such a path) or required to attempt Escape. See also 9.6056 and 9.6072.

9.6054 *SURROUNDED HEXES:* Each Uncontrolled-Territory, and each *unoccupied* Strategic Location that is currently *completely* enclosed within a Setup Area of only one side becomes part of that Setup Area [EXC: a Location vacated later due to the Escape of an enemy unit; 9.6131].

MARKING THE MAP: *Included in the* PB *module is a reduced-size map. Each side should now record its Setup Area(s) on a new photocopy of the respective reduced-size map. Both sides outline (using different color pens, but on the same photocopy) each Strategic Location Controlled by them. Other Strategic Locations can be marked by an appropriate letter inside a square; e.g., "E" for Entrenchment, "F" for Fortification, "G" for a functioning Gun, "V" for a manned, Immobile vehicle with functioning MA.*

Once all Strategic Locations have been indicated, mark all No-Man's-Land hexes using another color (suggestion: a yellow "highlighter"). Next, each side draws its Setup-Area boundaries, enclosing all non-Strategic Locations within two hexes of each friendly-Controlled Strategic Location (excluding No Man's Land).

After all Setup Areas have been determined, each side should record (on the reduced-size map) an ID for each one. Subsequent changes in the status of (potential) Strategic Locations (e.g., Blazing wooden rubble turned to shellholes [9.6092], a manned, immobilized vehicle with functioning MA that becomes Mobile [9.6141b], etc.) do not alter or otherwise affect either side's Setup Area(s) in any way; once all Setup Areas have been correctly marked, they remain thus until the start of the next CG scenario.



Personnel/Mobile-Vehicle:	
in enemy Setup Area	must attempt Escape (9.606)
in No Man's Land	must attempt Escape (9.606)
in Uncontrolled Territory	is Retained into the nearest friendly-Setup/Eligible-Entry Area or must attempt Escape (9.6053)
if Isolated	may attempt Escape or remain in place [EXC: if Overstacked]; 9.606
Abandoned (but otherwise Mobile) Vehicle—or Unpossessed Non-Vehicle Equipment other than Functioning Gun:	
in enemy Setup Area	is Captured or Eliminated (enemy's choice; 9.6071)*
in No Man's Land	is left in place unpossessed (9.6072)
in Uncontrolled Territory	is left in place unpossessed (9.6072)
if Isolated	is Retained by the Controlling side (9.6071)
Crewed, Immobile Vehicle *without* Functioning MA:	
in enemy Setup Area	is Captured or Eliminated (enemy's choice; 9.6071)*
in No Man's Land	is Abandoned; the crew (if any) must attempt Escape (9.6051)†
in Uncontrolled Territory	is Abandoned (9.6053); the crew (if any) is Retained into the nearest friendly-Setup/Eligible-Entry Area or must attempt Escape (9.6053)†
if Isolated	is Retained by the Controlling side (9.6071)
Crewed, Immobile Vehicle *with* Functioning MA—or Functioning Gun:	
in Bypass of enemy-Controlled Strat. Loc.	is Captured or Eliminated (enemy's choice; 9.6071)*
in any other Location	becomes a Strategic Location

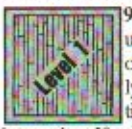
* Capturing/Eliminating side may Remove/attempt-to-Scrounge allowed Weapon(s) and/or turn vehicle into (Burnt-Out) wreck.

† Abandoning crew may Remove allowed Weapon(s) and/or turn vehicle into (Burnt-Out) wreck.

9.6055 *IN FRIENDLY SETUP AREA:* Each unit/Equipment currently in a friendly Setup Area is Retained therein.

IMPORTANT: Each Gun must (for now; see SSR CG11 [9.4] and 9.613) remain in its *current* Location, due to setup restrictions.

9.6056 *NOT IN FRIENDLY SETUP AREA:* Use the chart above to determine what happens to on-map units/Equipment that do *not* end a CG scenario non-Isolated inside a friendly Setup Area [EXC: British non-Airborne units/SW; 9.6153]. Note, however, that the actions listed are to be implemented in their proper RePh order (9.6).



9.6057 *UPPER-LEVEL ISOLATION:* Any Infantry/Weapon in an upper-level building Location is not Isolated if a path (of ≥ one contiguous, Enterable, friendly-Controlled building Location) exists to a friendly-Controlled, non-Blazing, non-Isolated ground-level building Location. Such Infantry/Weapon(s) are Retained in the Setup Area the path is traced to. If such a path cannot be traced, the Infantry/Weapon is Isolated (see 9.6052 and 9.62022).

9.6058 *NO MOVE:* If the upcoming CG Date is Night II, all German units which are on a No Move counter must begin the Night II CG scenario in the same location where they ended the Night I CG scenario [EXC: All German units on/north-of hexrow CC gain Freedom of Movement and may move

---

(Use the adjacent illustration along with the Q18 illustration.)

EX: These illustrations show a portion of the PB Map at the end of a CG scenario and how the Setup Areas, No-Man's-Land and Uncontrolled-Territory hexes have been marked; see 9.605–6054 and "MARKING THE MAP" above 9.6055. Strategic-Location Control is indicated by a solid-colored line (red for British, blue for German; where feasible, units have been removed from Strategic Locations for the sake of clarity). Each player has marked his own allowed Setup Areas for the next CG scenario with dashed lines of the matching color, e.g., the two German Setup Areas comprise those hexes within the blue dashed- *and* solid-line areas. By comparing the proximity of opposing Controlled Strategic Locations, players have also highlighted all No-Man's-Land (9.6051) hexes in yellow. Hexes neither enclosed by a colored line nor shaded yellow are Uncontrolled Territory (9.6053).

The British Setup Areas include all Strategic Locations outlined in red, as well as all hexes enclosed by the red dashed lines (non-Strategic Locations within two hexes of a friendly-Controlled Strategic Location but *not* within two hexes of an enemy-Controlled Strategic Location). The German Setup Areas have been likewise marked in blue.

Note that both sides Control ≥ one Location in hex Z15, putting that hex within German Setup Area A while leaving the British unit in the first-level Location on its own in British Setup Area D.

All British units in Setup Areas A and B are Isolated since hex Y21 is a No-Man's Land hex. The German units in Setup Area B are all Isolated since they cannot trace an eligible path to a friendly Entry Area.

The British squad in the first-level Location of Z15 is also Isolated and would be even if it were at ground level. The British units in Setup Area C are not Isolated, since they can all trace an eligible path to the landed but not wrecked glider in X22 and to the Z28 Entry Area; if the glider were wrecked, the British units in Setup Area C would still not be Isolated. If a German squad were entrenched in hex AA27, hex Z28 would be in German Setup Area B, but the British units in Setup Area C could still trace an eligible path to hexes V28-Y29 of the Z28 Entry Area.

within a setup area during the RePh.] All German units have Freedom of Movement for the Night III CG scenario.

9.606 *ESCAPE:* Each Personnel/Mobile-vehicle unit ending a scenario in No Man's Land, or in an enemy Setup Area, or in Uncontrolled Territory from which it is required to attempt Escape (9.6053), *must* attempt Escape. Each Personnel/Mobile-vehicle unit ending a scenario Isolated *may* attempt Escape [EXC: each such Isolated, Overstacked unit must attempt Escape (or be freely moved to another Location within that *same* Isolated Setup Area) until the Location is not Overstacked]. If > one *Personnel* unit in the same Location wishes to Escape, they may combine into one or more stacks; each stack then makes its own DR on the Escape table. When attempting to Escape, each MMC may portage ≤ five PP [EXC: a Walking Wounded MMC may only portage ≤ three PP], and each SMC may portage ≤ two PP [EXC: a wounded SMC can portage nothing]. Each squad stacked with a leader may freely Deploy. Prior to its possessor's Escape attempt, each SW/Gun may (must, if the unit exceeds its allowed portage limit) be dropped or freely Eliminated/-Transferred/dismantled-if-possible. A non-dm Gun can never Escape.

ESCAPE TABLE

Final DR	Infantry	Mobile Vehicle
≤ 8	Escapes[1]	Escapes
9	Escapes; Replaced[2,3]	Abandoned;[4,5] crew (if any) Escapes
10	Escapes; Casualty Reduced[3]	Eliminated;[4] crew (if any) Escapes
11	Escapes; Replaced, then Casualty Reduced[2,3]	Abandoned;[5] crew (if any) is Eliminated
≥ 12	All units and Equipment Eliminated	Eliminated; crew (if any) is Eliminated

[1] An Original 2 DR results in Escape and Heat of Battle for an eligible unit (A15.); use Random Selection to determine the unit(s) affected in a stack. [EXC: Any result other than Hero-Creation/Battle-Hardening results in Elimination of the unit(s).]

[2] A crew, or unit that would become Disrupted, is Eliminated instead.

[3] Use Random Selection for a stack.

[4] The surviving crew (if any) may turn the vehicle into a (Burnt-Out) wreck.

[5] In current hex and VCA; the surviving crew (if any) may attempt to Scrounge the vehicle/wreck.

[6] The surviving crew (if any) may attempt to Scrounge the vehicle prior to its Elimination.

DRM:

–1	If lone, unwounded SMC
–1	If a CT AFV
–1	If current CG Date is Night*
–2	If adjacent to a Friendly Setup Area (–1 If two hexes away from a Friendly Setup Area).
+x	(Armor-)Leader/Hero DRM (NA to Personnel Leader/Hero if alone)
+1	If in enemy Setup Area, *or* if it must trace a path through ≥ one enemy Setup-Area hex to intended area of Retention
+1	Per HS-equivalent > one HS using the same Escape DR*
+1	Per PP > IPC being carried (unit with most excess PP determines this DRM for a stack (a stacked leader may combine to increase a MMC's IPC)*
+1	If unarmed, Wounded, or Walking Wounded
+1	If a Captured vehicle
+1	If stunned
+2	If Encircled*
+2	If Isolated

* NA to vehicle Escape attempt.

9.6061 *ESCAPE RESULTS:* If a unit survives the Escape attempt, it and all Equipment it took with it are Retained into a friendly Setup Area or off-map at an Eligible Entry Area—whichever is nearest in a path of contiguous, Enterable, Uncontrolled-Territory/enemy-Setup-Area Locations (Escapee's choice if ≥ two such Areas are equidistant, but always using as few enemy Setup-Area Locations as possible).

If a unit is Eliminated by the Escape attempt, all Equipment it took with it is Eliminated on a subsequent dr of ≥ 4; on a dr of ≤ 3 the Equipment is left in the Eliminated unit's last-occupied Location. See also 9.6131.

EX: See the illustration on page Q10. The British squad in Uncontrolled-Territory hex W25 is freely relocated into any Location of the British Setup Area C. the German squad and Mobile Kuebelwagen in British Setup Area A must attempt Escape. The German player must roll for each attempt separately, and rolls an Original 6 and 7 respectively. The squad successfully Escapes on a Final DR of 8 (+1 DRM for being "in an enemy Setup Area" and +1 "per HS-equivalent > one HS using the same Escape DR"), and is relocated into German Setup Area A. The Kuebelwagen's DR, a Final 9 since it is both unarmed and in an enemy Setup Area, results in "Abandoned; crew Escapes". However, since an unarmed truck has no crew, it is simply left in place, marked by an Abandoned counter. In RePh step 9.6071 the British Retains the Kuebelwagen as captured. The Mobile German tank in No-Man's-Land hex Y17 and the German squad in No-Man's-Land hex Z23 must also attempt Escape. The tank successfully Escapes on a Final DR of 7 and is Retained into German Setup Area A. The squad rolls an Original 8 for its Escape DR; since it has a +3 Escape DRM ("+1 per HS-equivalent > one HS using the same Escape DR" and +2 for being Isolated), the Final DR of 11 results in it being Replaced and then Casualty Reduced (one 2-3-7). The Isolated British squad in the Z15 First-Level Location may attempt to Escape and would have a +3 Escape DRM (+1 per HS-equivalent > one HS using the same Escape DR, and +2 for being Isolated). Despite being vacant, that Location would still be British-Controlled at the start of the next scenario (9.6131). The squad could opt to remain in place (and 9.62021 would apply to it).



9.6062 *ENCIRCLED-MARKER REMOVAL:* All Encircled markers are now removed.

9.607 *EQUIPMENT POSSESSION AND HIDDEN FORTIFICATIONS*

9.6071 *IN SETUP AREA:* Each piece of Equipment in a Setup Area is Retained (as Captured, if applicable) therein by the side Controlling that Setup Area. At its (new) owner's option, each such non-vehicle piece may be Eliminated by any Personnel (even an Abandoning crew) Retained in that Setup Area, and each such vehicle may be Abandoned, etc. exactly as per 9.61423. The Inherent crew of each now-Captured Immobile vehicle with no functioning MA is also Captured. Each unpossessed/abandoned Equipment piece in a Setup Area may remain unpossessed/abandoned (in which case it retains its present CA), or may be automatically repossessed/remanned and operated (as per A21.11-.13, A21.21-.22, D5.42 or D6.631) by Personnel Retained in that Setup Area. Each Immobile vehicle must remain in its present Location and VCA until such time that it becomes Mobile.

9.6072 *NOT IN SETUP AREA:* All unpossessed/abandoned Equipment in No Man's Land or Uncontrolled Territory must remain in its present Location (and vehicle/Gun CA) until Eliminated or repossessed/remanned in (or after; 9.6071) a subsequent scenario. Each Immobile vehicle must remain in its present Location and VCA until such time as it becomes Mobile.

9.6073 *HIDDEN FORTIFICATIONS:* Each still-hidden Fortification within a Setup Area of the purchaser's opponent is placed on-map. Each such minefield is marked by placing a Minefield counter to reveal its presence but not its strength/type. Each on-map Fortification (i.e., from previous CG scenarios) is controlled by the side (if any) Controlling its Location.

9.608 *PRISONERS:* Each prisoner guarded by a non-Isolated unit is Eliminated. An Isolated Guard may retain possession of his prisoner(s), freely transfer them to another friendly unit (capable of being a Guard) in the same Isolated Area, or free them. If freed, a prisoner is automatically Retained (by the side friendly to it) into the nearest (in shortest path of contiguous, Enterable Locations) friendly Setup/Eligible-Entry Area (of the Unarmed-unit side's choice if ≥ 2 such Areas are equidistant). An unarmed MMC is Replaced by a Green/Conscript MMC of the same size; a freed SMC is Replaced by the original SMC type.

9.609 *EXTINGUISHING FLAMES AND BLAZES:* Each building/rubble Location currently marked with a Flame/Blaze counter is considered fully consumed by the fire. Players must remove each Flame/Blaze counter and make the appropriate terrain alterations when performing the following sub-steps (9.6091-9.6093):

9.6091 *BURNING WRECK:* Each Burning Wreck has its Blaze marker removed [EXC: if that wreck is in a building/rubble non-Bypass Location, move the Blaze marker to the building/rubble so that it is now a terrain Blaze]. Replace the wreck with a Burnt-Out wreck.

9.6092 *WOODEN RUBBLE:* Remove both the Rubble and Flame/Blaze marker, and place a shellhole counter in the hex. All other previous terrain in the hex is eliminated (each vehicle/wreck in the hex becomes a Burnt-Out wreck).

9.6093 *STONE RUBBLE:* Remove the Flame/Blaze marker. The stone rubble still exists (each vehicle/wreck in that Location becomes/remains a Burnt-Out wreck), and the Location may catch Fire again in a later scenario.

9.6094 *BUILDING:* Place the correct Rubble counter in all ground-level Locations of each building that has at least one Flame/Blaze in any of its Locations, removing each Flame/Blaze marker. Such rubble may catch Fire again in a later scenario.

9.6095 *ELIMINATIONS:* All Fortifications/Equipment in what were (as per 9.6092-.6094) building/rubble Flame/Blaze Locations (incluing all building Locations just rubbled as per 9.6094) are Eliminated. All (Burnt-Out) wrecks in buildings just rubbled as per 9.6094 are Eliminated. All Isolated units/Equipment that would have been confined to setting up in Locations (/rubbled-buildings;9.6094) from which a terrain Flame/Blaze has just been removed are Eliminated.

9.610 *WOUNDED LEADERS AND WALKING WOUNDED MMC*

9.6101 *WOUNDED LEADERS:* Each side makes a dr on the following table for each currently wounded Retained leader:

WOUNDED LEADER TABLE

Final dr	Result
≤ 1	Retained unwounded
2-4	Retained wounded
≥ 5	Eliminated (evacuated)

drm:

+1 if Isolated

-1 if Heroic

-1 if British

9.6102 *WALKING WOUNDED MMC:* The British player now determines how many (if any) Walking Wounded MMC are recovered as per CG SSR 17. These MMC are placed in any non-Isolated setup area. These MMC count as CVP lost by the British player for purposes of 9.6162.

9.611 *RECOMBINING AND BATTLE HARDENING*

9.6111 *RECOMBINING:* All Retained same-class HS with the same Strength Factors (and Walking Wounded status) within the same Setup/Entry Area must now recombine (A1.32) so that no more than one of each HS type is retained in that Area [EXC: each side may retain one HS per SW MTR Retained even if that SW is currently malfunctioned].

9.6112 *HEROS & MMC:* On each side, each Retained Hero [EXC: Heroic Leader; 9.6113] is Eliminated; however, each such Elimination enables that side to Battle Harden one non-crew MMC of the owner's choice within the same Setup/Entry Area as that hero [EXC: if no MMC are available to Battle Harden the hero is Retained in that Setup/Entry Area]. Elite MMC that Battle Harden become Fanatic (but only for the duration of the next CG Scenario). No MMC may Battle Harden > once per RePh.

9.6113 *LEADERS:* On each side, each Retained heroic leader Battle Hardens[21] and loses his heroic status [EXC: a heroic 10-3 loses his heroic status with no additional effect].

9.612 *NEW CG DATE AND SAN ADJUSTMENT*

9.6121 *NEW CG DATE:* Each passage of this RePh step represents the start of a new CG Date.

9.6122 *SAN ADJUSTMENT:* Each side must determine if the SAN of their side must be reduced for the current CG Scenario. A side whose SAN is currently < 2 has it automatically raised to 2 (no FPP expenditure is necessary).

9.61221 *BRITISH SAN:* If the British SAN is ≥ 4, a SAN adjustment dr must be made with a +drm equal to the current British SAN minus four. A Final dr ≥ 5 immediately reduces the British SAN by two.

9.61222 *GERMAN SAN:* If the Germans control the building in H13 the German SAN is unadjusted. If the Germans do not control building H13 and the German SAN is ≥ 4, a SAN adjustment dr must be made with a +drm equal to the current German SAN minus four. A Final dr ≥ 5 immediately reduces the German SAN by two.

9.613 *SHIFT:* A Personnel/Mobile-vehicle unit (or group of such) Retained in a *Setup* Area may attempt to Shift to another friendly Setup Area, or Eligible Entry Area. A Personnel/Mobile-vehicle unit (or group of such) Retained in an *Entry* Area may attempt to Shift to the next Eligible Entry Area, or to a non-Isolated friendly Setup Area. A unit/group that wishes to Shift *from a Setup Area* must be able to trace a path (of any length) of contiguous, Enterable (by *all* units of the Shifting group), Uncontrolled-Territory/friendly-Setup-Area/Eligible-Entry-Area hexes from any friendly-Controlled hex of that Setup Area to any hex of the Area to which it is attempting to Shift.

Each non-WW MMC may portage ≤ five PP, WW MMC may portage ≤ 3 PP, and each SMC may portage ≤ two PP [EXC: a wounded SMC can portage nothing]. Prior to its possessor's Shift (attempt), each SW may (must, if the unit exceeds its allowed portage limit) be dropped or freely Eliminated/Transferred/dismantled-if-possible. A Gun can not be Shifted. Each squad stacked with a leader may freely Deploy.

Make a separate Secret DR on the following table for each unit/group attempting to Shift [EXC: no DR is required if a unit/group Retained in a Setup Area wishes to Shift to an Eligible Entry Area that is part-of/adjacent-to that Setup Area; i.e., such a Shift is automatically successful]. Only one Shift attempt may be made per unit/group per CG Date, and all units attempting to Shift from the same, and to the same new, Entry or Setup Area must do so as a single group. A German unit/group that Shifts to an Eligible Entry Area may subsequently enter play at that Entry Area without paying any additional CPP.

SHIFT TABLE

Final DR	Result
≤ 8	Shifted safely
9-10	No Shift*
11	Shifted with Casualties†
≥ 12	All units, Inherent crews and Equipment Eliminated

DRM:

−1 If that entire path can be traced on *road* hexes‡

+1 Per every five Uncontrolled-Territory hexes along that path between the current Setup/Entry Area and the desired new Setup/Entry Area‡

* Unit/group cannot Shift (the orders were not received or could not be carried out). It may not attempt to Shift again until the next CG Date, and must remain in its current Entry Area (if Retained off-map) or Setup Area (if Retained on-map), though it may participate normally in the next CG scenario.

† Each Personnel unit suffers Casualty Reduction on a subsequent dr of ≥ 4. Each vehicle is Eliminated on a subsequent dr of ≥ 4; if it is Eliminated, make a CS DR for its Inherent crew (if any; Casualty Reduction is NA). Roll separately for each unit.

‡ Not applicable to a Shift from one Entry Area to another.

9.6131 *VACATED SETUP AREA:* If the last unit in a friendly Setup Area is Eliminated or successfully Escapes/Shifts elsewhere, each Location of that Setup Area remains Controlled by the last Controlling (i.e., by the vacating) side.[22]

9.614 *EQUIPMENT REPAIR AND REPLENISHMENT*

9.6141 *VEHICLES:* Each side performs the applicable step(s) below for each vehicle in a friendly-Setup/Eligible-Entry Area.

a) ABANDONED: Each abandoned vehicle may remain abandoned, or may be remanned and operated (as per A21.22 or D5.42/D6.631) by Personnel Retained within the same Setup Area.

b) IMMOBILIZATION REPAIR: Each non-captured, non-abandoned, immobilized vehicle must make a dr on the following table to determine if the immobilization is repaired:

IMMOBILIZATION REPAIR TABLE

Final dr	Result
≤ 2	Become Mobile*
≥ 3	No change

drm:

+1 if Isolated

+1 if only Non-Qualified Use (A21.13) possible

+1 if in a Front-Line hex

* And is Retained in its current Setup Area.

c) AFV RECALL: Each Mobile, non-Isolated Retained AFV under Recall is Eliminated. If Mobile, under Recall, and Isolated, such an AFV begins the next scenario under Recall (as well as suffering Ammunition Storage; A19.131).

d) STUNNED: A side Retaining a vehicle suffering the results of a stun (small stun; D5.34) must make a dr on the following table to determine if the vehicle recovers from the stun result:

VEHICLE STUN RECOVER TABLE

Final dr	Result
≤ 2	Recover, remove stun
3-5	Retain stun
≥ 6	Eliminated

drm:

+1 if Isolated

+1 if German

9.6142 *WEAPON REPAIR:* Each side now makes a separate dr on the table below for each malfunctioned, non-captured [EXC: Ox and Bucks may attempt to repair captured SW (see PB SSR 14)], Retained weapon in each friendly Setup/Entry Area that contains Personnel (or, for a vehicular Weapon, an Inherent crew in that vehicle):

WEAPON REPAIR TABLE

Final dr	Result
≤ 1	Repaired
≥ 2	Eliminated *

drm:

-1 if vehicular-mounted

-x (Weapon Repair Number)

+1 if only Non-Qualified Use (A21.13) possible

+1 if Isolated

* If vehicular-mounted, the Weapon is disabled; if MA, the AFV is immediately Recalled (9.6141c applies)

EX: A German HMG which is not Isolated and possessed by a German 4-6-8 repairs on a dr ≤ 4.

9.61421 *VEHICULAR-MG EXCHANGE:* A disabled, non-captured, vehicular MG may be automatically repaired (even if disabled in step 9.6142) by Eliminating a friendly SW LMG. In all cases, the MG to be Eliminated must be Retained within the same Setup/Entry Area as the AFV.

9.61422 *CAPTURED EQUIPMENT:* Each side makes a separate dr for each functioning, captured, Retained Weapon in each friendly Setup/Entry area that contains Personnel [EXC: this roll is not necessary if the Weapon was possessed by a member of the Ox and Bucks at the conclusion of the CG Scenario (see SSR PB14)]; if ≥ 4 it is Eliminated (disabled if vehicular). Each already-malfunctioned Captured Weapon is Eliminated (disabled if vehicular). Disablement of MA by either means does not cause Recall. At its captor's option, a captured vehicle may remain in play if it has any functioning Weapon (even if MA is disabled); otherwise it is turned into a (Burnt-Out) wreck as per 9.61423.

9.61423 *ABANDONING, SCROUNGING, & REMOVAL:* At the Controlling player's option ≥ one non-Recalled vehicle in each friendly Setup Area may be Abandoned and/or turned into a (Burnt-Out) wreck. Likewise, he may attempt to Scrounge ≥ one non-Recalled vehicle/non-Burnt-Out-wreck in each friendly Setup Area. [EXC to all: Such actions are NA unless ≥ one Personnel unit (even an abandoning crew) is Retained in that Setup Area.] All German-colored French vehicles, identified by a "(f)" at the end of the vehicle name, yield a German-colored French LMG if scrounged.

9.61424 *SPECIAL AMMO:* Each non-captured, non-Isolated weapon which has some form of depleted ammunition type may make a dr on the following table for each type of special ammunition which is depleted in order to attempt to resupply that type of special ammunition for that weapon:

SPECIAL AMMO RESTORATION TABLE

Final dr	Result
≤ 3	Restores special ammunition type
≥ 4	NA, weapon still depleted for next CG Date

drm:

-1 if British prior to a Night CG Scenario

9.61425 *LOW AMMO:* Each Low Ammo marker on each non-captured, non-Isolated German vehicle in a German Setup/Entry Area is removed.

9.615 *OB-GIVEN REINFORCEMENTS:* During the RePh, it is possible that the British will receive OB-Given Reinforcements.[23] These units may enter at a specified Eligible Entry Area or be held off-map.

9.6151 *REINFORCEMENT ENTRY AREAS:* Each Reinforcement unit listed in 9.6152 also has an Eligible-Entry-Area/Setup-Area listed. The reinforcements entering the map this CG Date must enter/setup via this Entry-Area/Setup-Area. All/some/none may enter on any turn. If reinforcements are remaining off-map at the CG-Scenario End, these units are Retained until the next CG scenario. Regardless of when they actually enter the CG, they may only enter/set-up as specified.

9.6152 *REINFORCEMENT ALLOTMENT:* The British Reinforcements for each CG Date are given below:

CG Date	Entry Area	Units
NIGHT II	Note 1,2,4,5	6-4-8, 4-5-8, 2-4-8, 7-0, LMG, 10 FPP
NIGHT III	Note 1,2,4	6-4-8(x18), 10-2, 9-2, 9-1, 8-0(x2), 7-0, LMG(x5), PIAT(x4), 20 FPP
DAWN	Note 1,2,3,4	6-4-8(x4), 8-0, LMG, PIAT, 57L AT(x2), 2-2-8(x2), 15 FPP
Day I	na	15 FPP
Day II	TT14	6-4-8(x15), 10-3, 9-1, 8-1, 8-0(x2), LMG(x4), PIAT(x2), FT, Sherman V (DD), 15 FPP
Day III	na	15 FPP
DUSK	TT14	4-5-8(x10), 4-5-7(x15), 2-2-8, 9-1, 8-1, 8-0, 7-0(x2), dm HMG(x2), dm MMG(x2), LMG(x4), 51 MTR(x2), PIAT(x4), Churchill VII(x6), Stuart V(a)(x3), Carrier C(x3), Carrier 3in, Lloyd Carrier, 57L AT, 10 FPP

Note 1: May set up in any non-Isolated British Setup Area. If the British are unable to set up on-map (due to no eligible non-Isolated Setup Areas), hex Z28 becomes an Eligible Entry Hex.

Note 2: Not received if playing CGII.

Note 3: Guns must set up in non-Isolated British Setup Areas in hexes numbered ≥ 20. If the British are unable to set up on-map (due to no eligible non-Isolated Setup Areas numbered ≥ 20), hex Z28 becomes an eligible Entry Area and the Guns must be Manhandled onto the Map.

Note 4: Non-crew MMC are Airborne MMC (see PB SSR 13 and 15).

Note 5: These units are elements of the Ox and Bucks (see PB SSR 14).

9.6153 *REINFORCEMENT WITHDRAWAL:* During the RePh following the Day II CG-scenario, the British must remove (does not Retain) any non-crew, non-airborne MMC (and their remaining SW/SMC) on the map.[24] For this purpose, it is necessary to note which SW/SMC are not part of a British Airborne formation.

9.616 *CPP REPLENISHMENT:* German CPP are replenished according to the following formula: the CPP Base # (9.6161) plus CG Scenario Loss Points (9.6162) equals the final amount of CPP replenished.

9.6161 *CPP BASE NUMBER:* The German's CPP Base # is given below for the current CG Date:

CG Date	CPP Base #
Night II	None
Night III	None
Dawn	25 (begin recording CVP for CG Scenario Loss Points)
Day I	32
Day II	30
Day III	20
Dusk	None

9.6162 *CG SCENARIO LOSS POINTS:* If the Casualty Victory Points (CVP) lost by the German player for the prior CG scenario (only) are ≥ two times, *and* ≥ 8 more than, the CVP lost by the British Player [EXC: WW MMC still count as CVP lost in the RePh in which they are received], the German player may make a dr and add this value to the CPP Base Number for the total amount of CPPs replenished. CG Scenario Loss Points are unavailable until the Day I CG Date RePh (i.e., players should begin recording CVP for CG Scenario Loss Points during the Dawn CG scenario.)

9.617 *PURCHASING REINFORCEMENT GROUPS:* The German player now secretly allots CPP for the purchase of RG [EXC: 9.617 is NA during the three Night CG Dates]. All CPP expended are subtracted from the German's current CPP total. The CPP expended, those remaining, and the RG(s) purchased may all be kept secret. The Germans consult their RG chart for the different types of RG historically available, the CPP cost of each, the number of each that may be purchased during the course of the CG, and any appli-

cable notes. As each RG is selected, record its ID (and the CPP expended to purchase it) in the "RG Purchased" column on the line for the current CG Scenario on the CG Roster. After all the RG are selected, write the total CPP expended in the "spent" column of the CG Roster for the current CG Date; then write the number of CPP remaining, even if zero, in the "Left" column for the current CG Date. Any CPP remaining may be used to purchase further RG in any subsequent RePh step 9.6171–.6178.

The RG chart contains the following columns:

9.6171 *ID:* Provides an alphanumeric identification for each RG.

9.6172 *GROUP TYPE:* Lists the name of the RG. This name and its ID are secretly recorded on the German's RG Purchase Record (9.6178).

9.6173 *(FULL/DEPL) UNIT TYPE(S):* Lists the type(s) of units that each RG contains.

9.6174 *CPP COST:* Lists the CPP cost of the RG (regardless of its later-determined Strength). This is the number of CPP that must be subtracted from the German's current CPP total in order to receive that RG.

9.61741 *CPP ENTRY COSTS:* Each German Entry Arrow has a CPP cost modifier listed in the arrow (from +0 to +6). The German player must add this cost to the base cost of the RG, and by doing so allows the units to enter at the Entry Arrow which he has "paid" to use.

CPP ENTRY COST TABLE

Entry Arrow Hex	Increased CPP Cost (per RG)
A8	+0
A15	+0
J0	+2
U1	+4
KK1	+6

9.6175 *CG DATE MAX:* Lists the maximum number of RG of this type that may be purchased per CG Date.

9.6176 *CG MAXIMUM:* Lists the maximum number of RG of this type that may be purchased during the course of the CG. The German must keep a written record (using the 9.6178 RG Purchase Record) of each RG purchased during the CG in order to know if additional RG of that type are still available for purchase. RG given during any CG Scenario never count against this maximum.

9.6177 *NOTES:* Special restrictions or comments about the RG.

9.6178 *RG PURCHASE RECORD:* After all RG for the current CG Date have been selected and CPP expended for them, the RG Purchase Record must be updated. One line of this sheet must be filled out for each RG purchased in order to keep track of the number purchased thus far in the CG. If preparing for a CG Initial Scenario, one line is also filled out for each RG given in the Initial Scenario OB (but these latter do not apply towards RG purchase limits; 9.6175 – .6176). The following listing explains how each column of the RG Purchase Record is used.

CG Date: The CG scenario the RG is purchased (e.g., NIGHT I).

RG ID: The RG's alphanumeric ID (e.g., V1 for Light Tank Pltn I).

Group Type: The RG's name (e.g., Light Tank Pltn I).

#P (Number Purchased): The total number of friendly RG of this Group Type purchased thus far during the CG.

#R (Number Remaining): The number of this RG Group Type still available for subsequent purchase in the CG. This number is derived by subtracting the number in that RG's #P column from the number listed in the "Maximum" column (for that RG for that CG) in the German's RG Chart.

Str: The RG's strength, as determined in RePh step 9.6181. Record "F" for a Full, "D" for a Depleted, RG.

 # Units: The number of units received in that RG of the Unit Type listed in the respective RG Chart (e.g., "3" for a Full Strength Garrison Pltn), and the unit type.

SW Received: As each SW for that RG is determined (RePh step 9.6182), record the number of each Weapon type received.

Pltn Leader: As each eligible RG's (armor) leader(s) is determined (RePh step 9.6183) record his A10.7/D3.4 Strength Factor.

Setup/Entry Area ID: On its CG Date of purchase, each RG [EXC: RG M1] must have a friendly, non-Isolated Setup Area or Eligible Entry Area recorded for it. Use the hex coordinate of each Entry Area's center (arrow) hex as the ID for that Area.

GERMAN REINFORCEMENT GROUP CHART

ID	Group Type	F/D	Unit Type(s)	CPP Cost	CG Date Max.	CG Max.	Notes
I1	Garrison Pltn	3/2	4-3-6	N/A	N/A	NA	a, e
I2	PzPionier Pltn	4/-	4-4-7	N/A	N/A	N/A	a, e
I3	PzPionier Coy	12/9	4-4-7	N/A	N/A	NA	a, b, e
I4	PzGrenadier Pltn	2/2	4-6-7	5	2	3	
		2/1	4-6-8				
I5	PzGrenadier Coy	12/9	4-6-7	13	1	4	b, d
V1	Lt Tank Pltn I	2/1	FT-17 730(f)	3	2	2	
		1/1	FT-17 730m(f)				
V2	Lt Tank Pltn II	3/2	38H 735(f)	6	1	1	c
		1/1	35-S 739(f)				
V3	Med Tank Pltn	3/2	PzKpfw IVH	14	2	3	d
V4	TD Pltn I	3/2	SPW S307(f)	5	1	2	
V5	TD Pltn II	3/2	Marder I	5	2	2	
V6	TD Pltn III	3/2	GSW 39H PaK(f)	7	1	2	
V7	SPA Pltn I	2/1	PzA LrS (f)	6	1	1	
V8	SPA Pltn II	2/1	GSW 39H(f)	6	1	2	
V9	SPA Pltn III	2/1	mSPW S307(f)	7	1	2	
V10	Staff Car	2/1	Kfz 1 (no AAMG)	1	2	2	
V11	AAtr Pltn	2/1	3.7cm FlaK LKW	4	2	2	
		2/1	2cm FlaK LKW				
M1	Fortifications	15 FPP		1	2	10	

Notes:

a) This RG cannot be purchased, but instead is on-map for an Initial Scenario.

b) May attempt two Leader Allotment DR (9.6183).

c) One RG of this type begins CG I on-map, a second may be purchased.

d) Receives a -1 DRM on the Leader Allotment DR (9.6183).

e) This RG does not roll for depletion, it is specified by the Initial OB.

9.618 *RG STRENGTH, WEAPONS & LEADERS*

9.6181 *GERMAN RG STRENGTH:* Each RG is eligible for Depletion [EXC: RGs I1, I2, and I3 are designated as Depleted or Full as part of an Initial CG OB, so no RG Strength DR is made for these RG; M1 is always 15 FPP]. For each such RG the German player has just purchased (as well as for each such RG he receives in an Initial-Scenario or during a RePh without purchasing), he must make one DR on the RG Strength Table to determine whether it is received at Full or Depleted Strength. A Full-Strength RG receives the number of specified units to the left of the "/", a Depleted RG receives the number of specified units to the right of the "/".

RG STRENGTH TABLE

Final DR	Result
≤ 9	Full
≥ 10	Depleted

9.6182 *GERMAN SUPPORT WEAPON ALLOTMENT:* Determine the number of SW received by each infantry-type RG listed in the following "Infantry-Type SW Chart." A Full Strength RG automatically receives all SW listed by a number not in parentheses; for those SW listed by a number in parentheses, one is received by making a dr *less than or equal to* that number. A Depleted RG must make a dr ≤ 4 to receive each SW not listed in parentheses; for those SW listed by a number in parentheses, one is received by making a dr *less than* that number. Record each SW received in its appropriate column on the RG Purchase Record on that RG's line. See CG SSR6.

INFANTRY-TYPE SW CHART

RG	HMG	MMG	LMG	LT.MTR
Garrison Pltn	-	(2)	1	-
PzPionier Pltn	-	(2)	1	-
PzPionier Coy	(2)	1	1	-
PzGren Pltn	-	(2)	1	(2)
PzGren Coy	(3)	1	2	1

Ex: The German player purchases a PzGren Pltn. If the Pltn strength is FULL, he must roll ≤ 2 to receive a MMG, he automatically receives one LMG, and must roll ≤ 2 to receive a 50* MTR. Had this Pltn been depleted, the German player would receive a LMG on a dr ≤ 4, a MMG on a dr < 2, and a 50* MTR on a dr < 2.

9.6183 *LEADER ALLOTMENT:* For each purchased/OB-Given "I" or "V" - type RG [EXC: V10, V11], make one Secret DR [EXC: "I" type COY make two Secret DR] on the appropriate column of the following leader tables to determine the type of leader received by that RG. Each leader must set-up/enter with a unit of his respective RG during the first (only) CG Scenario in which he participates [EXC: if Retained off-map for an entire CG Scenario].

LEADER TABLES

Final DR	Personnel Leader	Armor Leader
1	10-2, 8-1	10-2
2	10-2, 7-0	9-2
3	9-2	9-1
4	9-1	8-1
5-6	8-1	-
7-8	8-0	-
9-10	7-0	-
11-12	6+1	-
13+	-	-

LEADER TABLES DRM:

Garrison Pltn	+2
PzPionier Pltn	+1
Depleted RG	+1
PzGrenadier Coy	-1
Med Tank Pltn	-1

9.619 *PURCHASING FORTIFICATIONS:* Fortifications (and Sniper/Starshell Increases), which are obtained by spending FPP, may be purchased on each CG Date if the player has the requisite FPP (either given as a reinforcement in 9.6152 or purchased in 9.617). All FPP unspent upon completion of this step are forfeit. As Fortifications are selected, the specific type (and strength, if mines) must be recorded in the "FORTIFICATIONS" area of the CG Roster.

FORTIFICATION PURCHASE TABLE

Fortification Type	FPP Cost
Foxhole	3/2/1(d)
A-P Mine Factor (British Only (f))	1.5 per factor
A-T Mine Factor (British Only (a,f))	3 per factor
"?"	1
HIP (b,c,h)	5/3/2/1
SAN Increase (e)	10
Starshell Increase (g)	10

a) Daisy Chain NA.

b) Listed Cost is per 5/8" Counter/Squad/HS/SMC. SW may set-up with HIP unit up to the legal IPC of that unit (leaders may lend their IPC to a MMC) *or* one 50* MTR SW per MMC.

c) No more than 10% (FRU) of a side's Retained (not only purchased) Infantry squads may use HIP in a daytime Scenario.

d) 3S/2S/1S Foxhole costs.

e) May only purchase 1 SAN Increase per RePh.

f) May not be setup in an Isolated Location.

g) -1 drm to all British Leader Starshell dr for duration of CG Scenario.

h) HIP may not be purchased, nor used, by any German unit in the Dusk CG scenario.

9.620 *SCENARIO COMMENCEMENT*

9.6201 *CG SCENARIO VICTORY CONDITIONS:* In PB, each individual CG Scenario does not have Victory Conditions. The CG Scenarios serve instead to position the players for the overall CG Victory Conditions. Neither side "wins" or "loses" a CG scenario, only the CG itself.

9.6202 *UNIT SETUP*

9.62021 *ISOLATED UNIT SETUP:* The side that sets up first (9.62023) in a given CG scenario now sets up all of its Retained units, Equipment, and new Fortifications which will go into an isolated Location, after which the other side does likewise. Each Isolated unit/Equipment piece may be set up only in its current Setup Area [EXC: in its current Location and VCA, if an Immobile vehicle; 9.6071]. Each unit/Equipment piece set up in an Isolated Location is affected by Ammunition Shortages (A19.131) for the duration of the CG scenario. These units should be recorded to distinguish them from others not suffering the same penalties.

9.62022 *NON-ISOLATED UNIT SETUP:* The side which sets up first now sets up the remainder of its Retained units, Equipment, and new Fortifications in eligible Locations of the Setup Area each is Retained in [EXC: each Immobile vehicle must remain in its current Location and VCA (9.6071)]. Record the hex coordinates of new Fortification setup Locations on the CG Roster, in the appropriate line(s) and column(s) under "FORTIFICATIONS." See also SSR CG6–11, SSR PB2, and SSR PB7. Once the side setting up first has completed its setup, the other side follows the same (9.62022) procedure.

9.62023 *SETUP/MOVE TABLE*

NIGHT I	Germans Set Up First; British Move First
NIGHT II	Germans Set Up First; Germans Move First
NIGHT III	Germans Set Up First; British Move First
DAWN	British Set Up First; Germans Move First
DAY I	British Set Up First; Germans Move First
DAY II	Germans Set Up First; British Move First
DAY III	Germans Set Up First; British Move First
DUSK	Germans Set Up First; British Move First

FOOTNOTES

FOOTNOTES

1. 1.1 IRRIGATION DITCHES: There were many irrigation and drainage ditches in the fields near Pegasus Bridge, varying in size from small ones which would be of little impact in battle to ones almost gully-sized. It was decided early on that a generic representation of the average ditch was required. An average ditch is several feet across, and at least several feet deep, often with small footpaths crossing it. A wheeled vehicle would have little chance of crossing this ditch, while even tracked vehicles could get mired in the larger ditches. Moving infantry could cross this ditch with little or no delay, or they could slosh through it, receiving cover from incoming fire.

2. 1.43 VEHICULAR MOVEMENT THROUGH AN IRRIGATION DITCH: During playtesting, a vehicle would often enter an irrigation ditch hex along a road hexside and then exit the hex via a non-road hexside with no penalty. This struck many as incongruous. The solution was to require the MF and Bog penalties for non-road movement to be paid upon *either* entrance *or* exit. It didn't seem worthwhile to add another counter just to show whether or not a vehicle had entered an Irrigation Ditch hex via a road, although a side note of this status might be useful if the game is paused.

3. 2.1 PARTIAL ORCHARDS: The roads along the Canal de Caen at Benouville (as well as some of the other roads in the area) had trees lining only one side of the road. The obvious parallel was to the Orchard Road (B14.6); ultimately, adapting the Orchard rules worked best for simulating this terrain feature. Some thought was given to trying to adapt Hedges (B9.) for this purpose, but that concept didn't work out well.

4. 2.2 LOS: The number of hindrances for a sharply angled shot along a road lined with Partial Orchards can seem high, but in reality such a LOS can indeed be blocked. One playtest group suggested that the number of hindrances should equal the number of Partial Orchard hexsides crossed divided by two (FRD). In practice, this seemed more trouble than it was worth, so the simpler method won out. If during play you find the hindrances to be too high, use the above as a house rule for a more intricate simulation.

5. 3.1 SLOPE HEXSIDES, 4.1 VILLAGE TERRAIN, & 7.1 BARBED-WIRE FENCES: These are essentially reprints of the Slope Hexside (P2.), Village Terrain (P5.), and Barbed-Wire Fences (P3.) rules in *KAMPF-GRUPPE PEIPER*. They are reprinted in *PB* so that *KGP* need not be a prerequisite for this module. Although *PB* does not have the wide range of elevations that *KGP* does, the additional flexibility provided by the slope rules in overcoming the plateau effect made it much easier to represent the actual terrain.

6. 3.3 SLOPE LOS & ELEVATION ADVANTAGE: Giving an Up-Slope unit a 3/4-level elevation advantage may seem overly complicated, but it in effect allows the unit to see over half-level-yet not over full-level-obstacles/Hindrances rising from the same Base Level as that unit. The "half-level" Hindrances referred to are brush, bridge, grain, marsh, crag and AFV/wrecks.

7. 3.53 CREST-LINE SLOPES: The presence of a slope along a Crest-Line hexside sometimes also represents an embankment. These often occurred along the roads, some of which were cut far enough into the hillside that the high-side embankment completely blocked vehicular movement. Since the two embankments along the opposite sides of such a road usually differed significantly in height/steepness, it could not be considered a true sunken road.

8. 4.1 NARROW STREETS: The local villages and hamlets had quite a number of narrow streets, which are represented on the PB map by "hexside roads". Such streets were notorious for restricting the maneuverability of even average-size vehicles.

9. 4.11 ONE-LANE: Here "road" is defined to mean a string of ≥ one contiguous Narrow Street hexside between the two vertices/hexsides where that string either ends (EX: vertex PBDD10-DD11- EE11), joins with two other Narrow Street hexsides (EX: vertex K12-K13-L12), or becomes a non-hexside road (EX: vertex J12-K12-K13). Hence, each of the following constitutes a separate "road" for one-lane purposes: hexsides K9-L9 and K10-L9; hexsides K13-L12 and L13-L12; and single hexsides B16-C16; P12-P13; K12-K13; K12-L12- and so on.

10. 4.11 DASHING/ROUTING: Dashing across/along a Narrow Street is NA mainly to prevent any conflict between the rules for First Fire vs a Dashing unit and those for Snap Shots. Routing along a Narrow Street is NA because a routing unit may not Bypass (A4.3).

11. 5.5 BUILDING-ROAD: The Gondree Cafe (hex PBX18) is less than 10 meters from the canal, with the tow-path road running in between. Although the building-road hex was designed reluctantly to simulate this terrain, in practice the concept worked out well.

12. 6.1 TOWERS: The Towers represent the water towers scattered throughout rural France, as well as other types of unenclosed towers and observation platforms. Clock towers and other substantial enclosed structures will be better represented by normal buildings (B23.), perhaps in combination with Steeples (4.2). Towers can also be depicted, via an SSR, by on-map buildings. The definition of Towers in these rules was left somewhat open; the rules were given "plug in" characteristics with the intent that scenario designers adapt them to their own specific situations.

13. 7. BARBED-WIRE FENCES: Barbed-wire fences enclosed some of the small fields and orchards depicted on the *PB* map and, in such areas, had a definite impact on infantry and vehicular movement. In game terms, it was decided not to allow the elimination of barbed-wire-fence hexsides because otherwise the map could become cluttered with the counters needed to mark such hexsides.

14. 8.1 HILLSIDE WALLS & HEDGES: These are essentially reprints of the Hillside Walls & Hedges (F10.) rules in *WEST OF ALAMEIN*. They are reprinted here so that only the counters from *WOA* are a prerequisite for this module.

15. 9.4 CG12 GERMAN PANZERFAUST: During the playtest, German players ahistorically overused PF vs Infantry, since they knew the British would receive no armor until late in the CG. Reducing the number of PF available simulates the German Infantry's historical reluctance to use its limited anti-tank resources vs Infantry targets.

16. 9.4 CG13 SNIPERS: Sniper fire, especially from the church steeple in Le Port, harassed the British all day long, making control of the steeple a priority for the bridge defenders. This provision also serves as an incentive to the British player not to ignore Le Port until the end-game. Unlike the other HASL modules, *PB* requires the use of two Sniper counters even though only one map is used. Since the battle tends to break down into two separate conflicts (one for Le Port and one for Benouville), the usually random aspect of Snipers could be manipulated by setting up a solitary Sniper counter so that it never moved too far from one half of the battle. Two randomly activated Sniper counters help remove this control from the players.

17. 9.4 CG17 WALKING WOUNDED (WW) MMC: There were many instances of men from the 7th Battalion or from the Ox and Bucks staying in the fight despite suffering severe wounds; there was no where to retreat to but into the arms of the Germans. Only the most seriously wounded were moved several hundred yards to the rear of the "front lines" to where a surgeon of the Ox and Bucks treated them.

18. 9.51-.52: PB CAMPAIGN GAME I & PB CAMPAIGN GAME II: The Victory Conditions are designed to prevent the British player from merely huddling around the bridge, while at the same time giving the German player a powerful incentive to take back the bridge from the British. Also, Lord Lovatt's (non-Airborne) commandos were desperately needed in Ranville. Delaying a significant portion of them in Benouville would surely have allowed the 21st Panzer Division to break through in that sector—victory enough for the Germans. Capture of the Orne River Bridge (500 meters east of the canal) was just as important to the Allied effort as Pegasus Bridge, but historically the river bridge fell to the Ox and Bucks without a shot being fired, and no fighting occurred around it. Early renditions of the map included the river bridge, but, unlike the western edge of the map, it never came into play.

19. 9.52 PB CAMPAIGN GAME II: The second CG allows players to enjoy simulating the battle without having to use the night/glider rules. Although almost anything can happen by the time dawn arrives in the first CG, the second represents the rough historical disposition of troops after the Germans withdrew from their night attacks. Players will probably notice that the first CG plays considerably different from this second, as the British losses inflicted by the Germans at night are often much more than occurred historically. A third CG involving only the three night scenarios is in the works and may appear in some future edition of the *ASL Annual*.

20. 9.602f MARKER REMOVAL: Each unit still hidden at scenario end is placed on-map concealed (in its respective setup Location) so that it cannot "magically" escape from an Isolated Area, and for use in determining Controlled Strategic Locations. As a house rule, such a unit could be kept off-map unless in danger of being Isolated or needed to verify Control of Strategic Terrain. However, if such a unit's Location is later determined to be Isolated or part of an enemy Setup Area, it must immediately be placed on-

map concealed in that Location.

21. 9.6113 BATTLE HARDENING LEADERS: Given that the entire "campaign" lasts less than 24 hours, certain features of earlier HASL Campaign Games *RED BARRICADES* and *KGP* were not appropriate for *PB*, e.g., Battle Hardening during the RePh of retained MMC in the absence of a Hero and of non-heroic Leaders, removal of fortifications and wrecks during the RePh, "resupply" of Isolated units during a scenario, provisions for random weather, etc.

22. 9.6131 VACATED SETUP AREA: Due to the confused nature of the battle lines and the short time span represented by the RePh, the enemy is assumed not to have noticed that all friendly units have vacated their positions, or to have been unable to react to the situation.

23. 9.615 OB-GIVEN REINFORCEMENTS: In such a short, focused "campaign," balancing the historical flow of the battle with allowing the British player to choose from Reinforcement Groups just wasn't feasible. The Allied commanders didn't have the luxury of choosing which units to commit to battle or when to do so. Instead of RG, the British receive reinforcements on a set timetable. (Random reinforcements were found to affect play balance too much.) British reinforcements received for Night II represent the rest of the Ox and Bucks who landed at the Orne River bridge; those received for Night III and Dawn represent paratroopers making their way up from the area around Ranville; the Day II reinforcements are Lord Lovatt's commandos, striking towards Ranville to reinforce the paratroopers there; and the Dusk reinforcements are the Royal Warwickshires, attacking from Sword Beach with armor support. See the PB scenarios for more details.

24. 9.6153 REINFORCEMENT WITHDRAWAL: Lord Lovatt's commandos were desperately needed in Ranville and fought around Pegasus Bridge only long enough to ensure their passage through to the south. Simulating this in the CG was one of the trickier aspects of designing *PB*. The Sherman DD tank, however, did stay behind at the bridge and fought in Benouville.

FOOTNOTES

25. SSR PB6 HEDGES: The hedges around Benouville verge upon becoming bocage. The Bog Check that all vehicles must take in the hex being exited when crossing a hedge helps simulate this.

26. SSR PB14 OX AND BUCKS: The Ox and Bucks had trained together long hours under Major Howard in preparation for capturing the bridges over the Orne river and the Canal de Caen at Benouville. They practiced night tactics via repeated assaults on mock-ups of the actual terrain and were more familiar with the area around the bridges than were the German defenders-to the point where consideration was given to exempting them from paying the extra MF for Concealment Terrain at night (E1.151). This was felt to be too powerful, however, so they were limited to the benefits of being Stealthy at night. They also trained extensively on various German small arms and machine guns and had developed a high regard for the latter. When they captured a cache of ammunition near the bridge, many men dumped their Sten guns for German machine pistols and the sought-after MG34 machine gun.

27. SSR PB19 STARSHELLS: The German forces were not well-prepared for night combat, while the Ox and Bucks were planning on using the cover of darkness to capture the bridge and Benouville. This is represented by limiting starshell usage to Leaders and AFV. The +2 drm for British leaders represents both the limited resources of the Ox and Bucks and their reluctance to light up the night, as well as helping to offset the higher number of Leaders the British get.

PEGASUS BRIDGE CREDITS

Design: Tim Van Sant, Brian Youse, and Steve Petersen

Development and Historical Research: Multi-Man Publishing (Special Thanks also to: Neil Stevens, Christian Spies, Peter Ladwein, Veikko Hyyrynen, and Bruno Nitrosso)

Map Development: Ken Dunn and Steve Petersen

Scenario Design: Tim Van Sant, Brian Youse, and Curt Schilling

Cover, Map and Game Art: Kurt Miller

Counter Art: Mark Simonitch

Layout: Mark Simonitch and Multi-Man Publishing

Playtest Group Coordinators: Scott Jackson, Brian Blad, Terry Nonay, Sam Barker, and Brian Martuzas (Special Thanks also to: Kevin Valerien, Dan Stanhagen, Matt Noah, Jeff Coyle, Kevin Meyer, Ken Dunn, John Appel, Bob Lyman, and Eric Givler)

Prep Dept. Coordinator: Lou Velenovsky

Printing: Monarch Services

©1997 Avalon Hill Game Company, Inc.

R. A BRIDGE TOO FAR

ORDER OF PRESENTATION:

1. ARNHEM BRIDGE
2. THE RAMP
3. FACTORIES
4. CELLARS
5. THE BLOCKHOUSE
6. UNIT REPLACEMENT
7. WIDE CITY BOULEVARDS
8. PARTIAL ORCHARDS
9. A BRIDGE TOO FAR CAMPAIGN GAMES

R.1 *ROAD-NEGATING TERRAIN (B3.4; B24.121):* Infantry may not claim the extra-MF road bonus during a MPh in which they expend extra MF to derive the protection of shellholes—nor may they claim it if they choose the non-Open Ground cover of an Orchard in preference to the Open Ground of a road. A road covered by rubble is treated as non-existent [EXC: for Street Fighting purposes (A11.8); if Cleared (B24.71)]. Therefore, Dash (A4.63), road bonus (B3.4) and the 1/2-MP road rate are not allowed in a road hex covered by rubble.



R.2 *WALL ADVANTAGE AND FORTIFIED BUILDINGS (B9.32; B23.93):* A Gun in a Fortified Building Location may never claim Wall Advantage. Its manning Infantry could claim it only by first dropping possession of the Gun. Such a Gun can, however, have a LOS to non-adjacent same-level Locations over the wall hexside(s).



R.3 *FACTORY MOVEMENT (B23.742):* A vehicle that changes its VCA in any Factory Location is subject to Bog. A vehicle that becomes immobile in a Vehicular-Sized Entrance (3.2; B23.742) does not negate Entrance benefits. Any unit may use the Open Ground entrance benefits of a Vehicular-Sized Entrance—but only when entering it from outside that Factory. Such use of OG entrance benefits does not negate that hex's Factory TEM.

R.3A *FACTORY TEM/HINDRANCE (B23.741):* Normal building TEM (usually +3) applies to Indirect Fire vs a non-Rooftop Factory Location. The extra +1 TEM for a Fortified Factory Location does not apply vs Indirect Fire. For Sniper Target Selection (A14.21) a unit in a stone Factory is considered to have a +3 TEM (+4 TEM if Fortified). Factory Hindrance is half-Level LOS Hindrance.



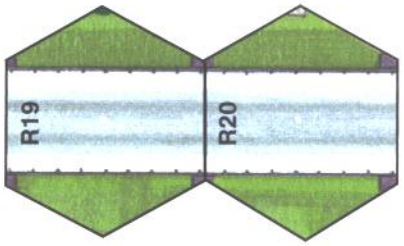
R.3B FACTORY ROOFTOP ACCESS POINTS (B23.742; B23.8): Aside from Scaling (B23.424), a Factory Rooftop can be reached from ground level only via a non-rubbled Factory Rooftop Access Point; i.e., a printed stairwell or a Location of the Factory that contains a road hexside. A Factory that contains neither of these Rooftop Access Points must have at least one such point designated by SSR if its Rooftop is to be usable. The ground and Rooftop Levels of a Factory Rooftop Access Point hex are ADJACENT; intermediate vertical Levels do not exist [EXC: for MF-expenditure, LOF and Residual-FP purposes; R.3C]. Infantry expend two MF to ascend to the Rooftop and vice versa.

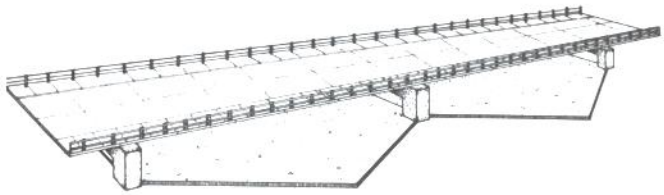
R.3C *ATTACK EFFECTS (B23.8):* Infantry changing Levels via a Factory Rooftop Access Point may be attacked at ground level (if descending) and/or Rooftop Level (if ascending) in the normal manner. However, they may also be attacked at the first-Level "quasi-Location" of that hex by a unit that has LOS to that quasi-Location. Such a quasi-Location is not considered Open Ground, but such an attack vs it receives no TEM [EXC: non-Fortified building TEM applies if firing from outside the Factory] or Factory Hindrance DRM. The target is assumed to expend one MF per Level changed; if pinned or broken while at that quasi-Location it reverts to the Level it was attempting to leave (and may be attacked by any Residual FP at that Level as it re-enters it). The Residual FP left by an attack vs such a quasi-Location remains at that Level (place the Residual FP counter on the appropriate Level counter) to attack each unit subsequently entering that Level in that hex during the same MPh. A unit at Rooftop Level in a Factory Rooftop Access Point hex being attacked by a same-hex, ground-level unit receives the Height Advantage +1 TEM (B23.81), while the ground-level unit receives Factory TEM (and no additional TEM for a Fortified Building Location) if attacked by that Rooftop unit. Both units may use PBF (since they are ADJACENT; A7.21).



R.4 *ROOFTOPS (B23.82):* A Rooftop Location is Concealment Terrain only for setup purposes. Once the first RPh has been completed, B23.82 comes into effect. A Rooftop Location is not considered a building Location for rout, rally, and/or Victory purposes. A Gun may never be Emplaced (C11.2) on a Rooftop.

R.5 *ENTRENCHMENTS (B27.):* A trench may not occupy the same Location as a foxhole.



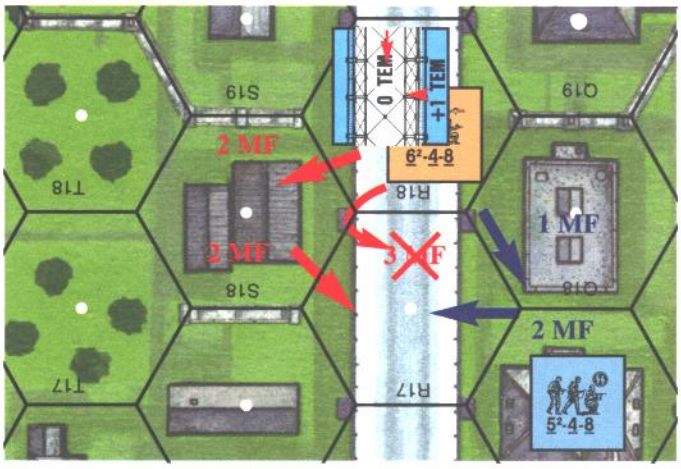


1. THE ARNHEM BRIDGE [1]

1.1 The Arnhem Bridge is represented by the contiguous row of hexes R15 – R23 (inclusive). Each such hex contains a Level 1 Location as well as a Level 0 Location. Unless noted otherwise, Arnhem Bridge hexes are treated as two lane stone bridge hexes (B6.1–.43) [EXC: Arnhem Bridge hexes may not be destroyed or damaged during play; MP penalties and VCA limitations of B6.43 are NA while on (not beneath) the Bridge/Ramp; Arnhem Bridge hexes are Inherent Terrain (B.6); units occupying Level 1 Locations in an Arnhem Bridge hex have no LOS to any units occupying Level 0 Locations in Arnhem Bridge hexes]. Arnhem Bridge hexes may be Scaled (B23.424) by British Commando units.

1.11 The Pillar artwork (EX: R18/R19/Q19 vertex) has been added for aesthetic purposes and only serves to denote those hexsides which are rowhouse hexsides (1.12, B27.31). The Pillars have no other game effects.

1.12 Hexsides containing Pillar artwork on each end (EX: R17/R18) contain rowhouse hexsides (B23.71) which extend the entire length of the hexside, thus bypass movement (B23.71) is not possible around the vertex while moving beneath the bridge. Infantry bypass movement in hexes adjacent to the bridge is not affected by these rowhouse hexsides in any way. These rowhouse hexsides may not be breached (B23.711) nor are they affected by rubble in either/both hexes sharing the hexside.



EX: The 6-4-8 in R18 cannot directly enter hex R17 (as illustrated by the red arrows) without first moving through hexes Q18 or S18. Bypass movement "around" the R17/R18/Q18 and R17/R18/S18 vertices is possible but only by doing so "in" hexes Q18 or S18 (as illustrated by the blue arrows in Q18). In this case, the 6-4-8 would be considered to be moving in Q18 for all purposes (minefield attack, Residual FP/Fire Lane, defensive fire, etc.) and LOS would be drawn to the appropriate bypass vertices. Note that the rowhouse hexside R17/R18 blocks LOS between the 6-4-8 in R18 and the 5-4-8 in Q17.

1.13 Hexsides Q15/R15 and S15/R15 are Hillside Walls (F10) and Cliffs (B11) [EXC: these hexsides may be crossed only via Scaling (B23.424)].

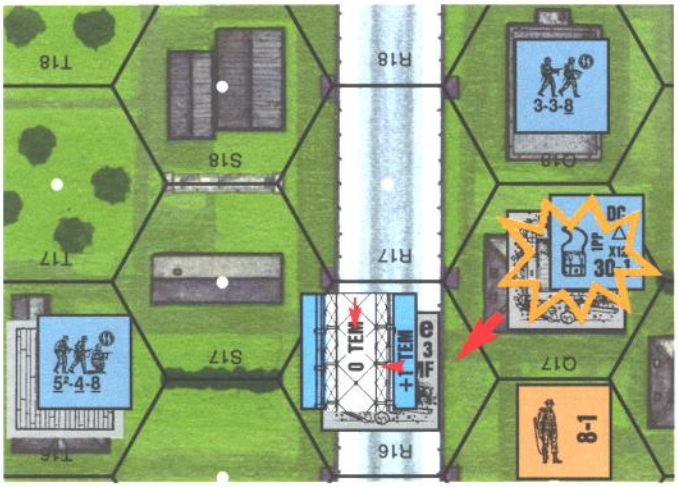
1.2

1.2 Level 1 Locations in Arnhem Bridge hexes are wide city boulevards (B7) [EXC: -1 TEM of B7.3 is NA vs same or lower-elevation fire if the target otherwise qualifies for Bridge TEM; B6.31]. Hex R23 is considered to be a Level 2 terrain feature for the purposes of E1.7 (Night LV modifier). Any unit entering hex R23 from off map is considered to have spent ≥ 4 MP in LOS of any viewing unit (assuming LOS exists at all).

1.21 PBF and Case L TH DRM are NA vs targets occupying Level 1 Locations in Arnhem Bridge hexes from fire originating from any lower elevation.

1.22 While occupying Level 1 Locations in Arnhem Bridge hexes which are also adjacent to ≥ 1 Level 1 building Location, OT AFV are always considered vulnerable (A7.211) to PBF small arms fire provided all firing unit(s) occupy adjacent building (or rooftop) Locations ≥ Level 1. Additionally, the normal CE DRM is reduced by 1 (to a minimum of +1) for such fire.[3]

EX: A German SPW 250/1 HT, with a 3-4-8 HS as a Passenger, moves on the bridge, entering hex R17. The PRC are BU. A British 6-4-8 at Level 1 in hex Q17 fires at the SPW 250/1. Since the HT occupies a Level 1 Location adjacent to a Level 1 building Location, the special provisions of 2.4 apply. Thus the PRC are vulnerable to fire even though they are BU. Additionally, since the CE DRM is reduced (by 2.4), the HT is considered unarmored (D5.311) to this fire.



1.3 Ground-level Locations in Arnhem Bridge hexes are one level Hindrances with a +1 TEM. These Locations are Inherent Terrain (B.6) and Concealment Terrain. Unless using the road hex (e.g., entering R15 from S16), Infantry enters such Locations at a cost of 2 MF, tracked vehicles do so at a cost of 3 MP, and non-tracked vehicles do so at a cost of 5 MP [EXC to all: all units pay normal MF/MP costs for rubble Locations beneath the bridge]. These Locations are not Burnable (B25.1).

1.31 Falling rubble (B24.12) can exist beneath the Bridge. Contrary to B24.121, falling rubble has no effect on the Bridge itself. Such rubble exists at ground level only. Falling rubble does not negate the Hindrance/Concealment-Terrain status of any ground-level Locations beneath the Arnhem Bridge.

EX: See the 1.22 example. The German player successfully places a DC in the ground-level Location of hex Q17. The Original Resolution DR is a 3 resulting in possible rubble Creation (B24.11). A subsequent dr of 1 places a stone rubble counter at ground level in Q17 and allows for the possibility of falling rubble (B24.12). The falling rubble Final colored dr is a 7 (white dr of 2), causing rubble to fall into hex R16. This falling rubble is placed at ground level (i.e., beneath the bridge). This rubble blocks LOS from Q16 to the ground level of T16, affects COT and Bog, but has no effect on the Level 1 Location of R16 or on the +1 Hindrance for LOS from Q16 to Level 1 of T16.

1.4 *PEDESTRIAN ACCESS POINTS:*[2] Units in R20 can move/advance to/from Level 1 as if using a stairwell (though no LOS exists; 1.1); B23.4.

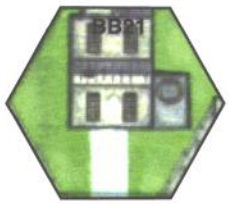
2. THE RAMP [4]

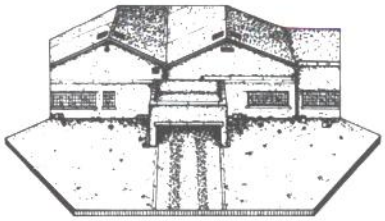
2.1 The Ramp consists of the contiguous row of hexes R5–R14. The Ramp varies in height from Level 0 (R5 and R6) to Level 1 (R11–R14). Hexes R7–R10 are equivalent to Hillocks (F6.4 – 6.53) for purposes of LOS/LOF, elevation and MF/MP costs [EXC: Road MF/MP costs apply when crossing road hexsides in these hexes]. The Hillock effects begin with the artwork in hex R7 (i.e., hexside R6/R7 is at Level 0) and extend to the R10/R11 hexside (inclusive) (i.e., the R10/R11 hexside is a hillock hexside; the Crest Line for hex R11 is considered to lie at south edge of the R10/R11 hexside).

2.2 *LOS:* Units on the Ramp have no LOS to any Locations under the bridge. In season Orchards are an LOS *obstacle* between a unit on a Hillock and a unit at ground level (or ≥ Level one). Units in Bridge/Ramp Locations are treated as being at the same level as one another for all LOS between them.

2.3 *MF/MP:* Normal road MF/MP costs apply to movement along the ramp and/or bridge provided the units cross road hexsides. Additional MF/MP costs for changing elevations (A4.133, C10.4) are NA while crossing road hexsides on the Ramp and/or Arnhem Bridge.

2.4 All hexes of the Ramp are wide city boulevards (B7).





3. FACTORIES [5]

3.1 Each building on the *A Bridge Too Far* map that has ≥ 1 one road entering it is a Factory. Normal Factory (B23.74) rules apply to all *ABtF* Factories except as amended below.

EX: Building EE20 is a Factory due to having a road enter it in hex FF20. Building GG15 is a Factory due to having a road enter it in hexes HH14 and FF14.

3.2 *VEHICULAR-SIZED ENTRANCE:* A non-rubbled *ABtF* Factory Location that has a road entering it (EX: FF11) is considered a Vehicular-Sized Entrance (B23.742; see also R.3–R.3C).

3.3 *FACTORY INTERIOR WALLS:* A thick black bar covering a hexside (EX: EE11) or partial hexside (EX: BB17) in the interior of some *ABtF* Factories represents a massive interior wall similar to the black-bar hexsides of a Rowhouse (B23.71). It is considered to extend from the Base Level of the Location to the underside of the roof (even if, because of rubble, the roof itself does not exist).

EX: The Factory Interior Walls of a 1 1/2-Level Factory are 1 1/2 Levels high.

3.31 *LOS:* The black-bar depiction as well as the hexside itself (inclusive of vertices) lying *within* the building depiction, represents the Factory Interior Wall and blocks all LOS along/through it unless the viewing/viewed unit is at a Level ≥ the top of the Factory Interior Wall [EXC: Breach, 3.33; if rubbled, 3.34].

3.311 *FACTORY NVR:* In a Night scenario, a (non-rooftop) unit in a Factory tracing its LOS completely within that Factory building's depiction always has its NVR to Locations of that building limited to the first Location its LOS enters.

3.32 *MOVEMENT:* A ground-level unit may move/rout/advance/Withdraw-from-Melee across a Factory Interior Wall only via "bypass" (as per B23.71) along an *exterior* vertex (i.e., one "outside" the Factory building depiction) or via a Breach (3.33).

3.33 *BREACH:* A Factory Interior Wall, even if part of a Fortified Building Location, may be Breached by a DC as per B23.711, or by any AFV using the mechanics of B9.541.

3.331 *EFFECTS:* Once a Factory Interior Wall has been Breached, that hexside's effects remain unchanged except as follows:

- units may move/rout/advance/Withdraw-from-Melee and same-level (only) LOS may be drawn, across it *as if it were a wall* (exclusive of its vertices, whose status remains unchanged by the breach);
- the *Inherent* FP (only) of a unit/FG firing through such a Breached hexside is halved as Area Fire if the total US# of the unit(s) currently firing (a Leader directing fire through a Breach does not add his US# for this calculation) is ≥ 3; only one Gun (whether vehicular or not) per Location may fire through such a Breached hexside per Game Turn;
- such a Breached hexside may be crossed only if the total US# of all units that have crossed it during the current phase, plus the US# of the unit currently wishing to cross it, is ≤ 5.

3.332 *OB/CG SCENARIO PURCHASE:*[6] The British player may purchase Breaches using available FPP during the RePh. Such Breaches (or ones listed as part of the British initial OB during *ABtF* scenarios) may be set up in Front Line Locations, including Rowhouse hexsides, are secretly recorded, and are revealed as if they were tunnels (B8.61).



3.34 *RUBBLE:* Rubble has no effect on a Factory Interior Wall black bar unless both hexes sharing the hexside are rubbled, in which case the Factory Interior Wall ceases to exist along that hexside.

3.4 *GUNS:* All categories (C2.2) of Guns may set up in an *ABtF* Factory. A Gun may enter/exit an *ABtF* Factory via a Vehicular-Sized Entrance (using the Entrance's movement benefits) or via another non-Interior hex of that Factory [EXC: B23.93]. However, entry/exit via a non-Vehicular-Sized Entrance is allowed only if being pushed (C10.3), in which case both normal building-entry Infantry MF costs and that Factory hex's TEM apply as Manhandling DRM, even if exiting that Factory.

4. CELLARS[7]



4.1 All multi-hex, non-Factory buildings depicted on the *ABtF* map contain a Cellar Location beneath their ground-level Location (i.e., at *building Level* -1). A Cellar Location is considered the equivalent of another non-rooftop building Location in that hex (even for falling rubble [B24.12] and Victory Condition purposes) except as specified otherwise. The Cellar Level is ignored when determining the Base Level of a building hex.

4.11 *TEM:* Cellar Locations have a TEM of +3. Cellar Locations may be Fortified. Cellar Locations are ignored for the purposes of B23.912 (i.e., the Cellar need not be fortified to fortify the ground-level Location).

4.12 *STACKING:* A Cellar Location has a normal stacking limit (A5.1) of two squad-equivalents (A5.5) plus up to four SMC. Overstacking may occur [EXC: NA during setup (A5.1); see also 9.6214], but no unbroken, armed unit/stack may enter an already overstacked Cellar Location if its entry would increase the squad-equivalency therein.

4.2 *ENTRY:* Only Infantry/SW may set-up-in/enter a Cellar, and their presence therein is indicated by placing them beneath a Cellar counter. Infantry may enter/exit the Cellar level only via a Stairwell or a "connecting" Trench. Infantry already in a Cellar may directly enter an adjacent Cellar Location only if the two hexes involved share a common non-Rowhouse [EXC: unless Breached; B23.711] *building* hexside.

4.21 All Trench "connections" (see SSR ABtF 17) "open into" the Cellar Level if it exists in that hex [EXC: if the ground level above the Cellar has been rubbled; 4.6]; otherwise Trench rules apply unchanged.

4.3 *LOS:* Infantry in a Cellar tracing LOS *outside* of their building to a non-ADJACENT Location do so as if entrenched at ground level (B9.21), and trace LOS to an ADJACENT Location in the normal manner (B23.25, B8.2). There is no LOS between adjacent Cellar Locations across a Rowhouse black bar hexside [EXC: if Breached; B23.711]. For the purposes of Height Advantage TEM (B10.31) and Night LV (E1.7) applicability, Cellar Locations are considered to be at Level 0.

4.4 *FIRE EFFECTS:* The *Inherent* FP of a unit/FG in a Cellar is halved as Area Fire if the LOF leaves their building's depiction and is *not* traced to an ADJACENT Cellar Location, and the US# of the unit(s) *currently* using such Inherent FP is ≥ 3 (A Leader directing fire from a Cellar Location does not add his US# for this calculation). Otherwise, a Cellar Location has no effect on the use of SW/Inherent-FP other than those normally caused by being fired from within a building. A DC may be Thrown from a Cellar Location only to an ADJACENT Location.

4.41 *SMOKE:* SMOKE at ground level in a Cellar hex affects different-level fire to/from the Cellar Location normally. The extra +1 Hindrance for outgoing fire (A24.8) is NA and fire between ADJACENT Cellar Locations is unaffected.

4.5 *BLAZE SPREAD:* A Blaze may spread to/from a Cellar Location only from/to an ADJACENT Location.



4.6 *RUBBLE:* A Cellar Location can be rubbled like any other building Location. If a Cellar Location is rubbled, it and all other building Locations in the hex cease to exist and the appropriate rubble counter is placed at *ground* level in that hex. All occupants and weapons are eliminated, as is its Fortified Building status (if any), and an AFV can no longer fall into it (4.62, B24.4). If the ground-level Location above a Cellar is rubbled, the appropriate rubble counter is placed at ground level on top of a Cellar counter. The Cellar Location beneath such still exists, but all LOS out of that Location across a non-building hexside is blocked. Trenches no longer "connect" to a Cellar Location if the ground-level Location above it has been rubbled.

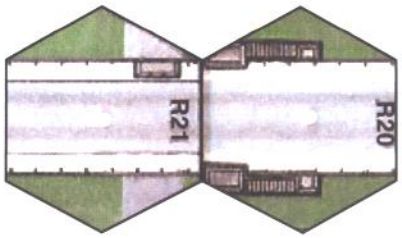
4.61 Stairwell: A stairwell between the Cellar level and ground level is affected in the normal manner if that ground-level Location is rubbled (B24.4).

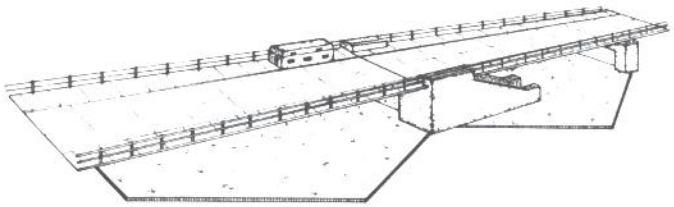


4.62 *COLLAPSE:* The B23.41 cellar rules apply unchanged to a Cellar [EXC: an AFV falls into a Cellar if the Original colored dr of the Bog Check is ≥ 5]. If the crew of such an AFV survives, it may immediately attempt to Scrounge the AFV and the crew is then placed in the Cellar Location instead of at ground level (even if its placement would cause the Cellar Location to be overstacked). In all cases the AFV is eliminated and leaves no wreck. Each Infantry unit in such a Cellar Location must take an immediate NMC; if it fails this NMC a dr (Δ) must then be made for each SW it possesses; a 6 eliminates that SW and 4-5 malfunctions it.]. The removal of an AFV for falling into a cellar in a single hex building does not create a Cellar in that hex.



4.7 *ENCIRCLEMENT:* The principles of A7.72 (Upper Level Encirclement) do not apply to Cellar Locations; i.e., a unit in a Cellar is not Encircled merely by having no exit to ground level.





5. THE BLOCKHOUSE [8]



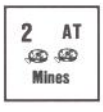


5.1 Hex R21 ordinarily contains a Blockhouse counter at Level 1. The Blockhouse is the equivalent of a standard 2+5+7 Pillbox except as indicated. The Blockhouse has a 360° CA. Units in the Blockhouse have LOS to lower elevations only through the R21/R20, R21/Q21 and R21/Q22 hexsides. Units in the Blockhouse have LOS to units in the same hex. The Blockhouse is considered a valid Friendly Setup Area to the side which Controls it (see 9.6052). This pillbox and its contents would never be automatically HIP (though HIP for its contents could be purchased during a CG Scenario via FPP).

5.2 *RUBBLE:* If destroyed (B30.92), replace the Blockhouse counter with a stone rubble counter at Level 1 in hex R21. Such rubble exists *only* on the Bridge (i.e., at Level 1) and does not "fall" to ground level. Falling rubble (B24.12–.121) from the Blockhouse is NA. Once this rubble is placed, the Level 1 Location in hex R21 is considered fallen rubble for all purposes [EXC: 5.21 Movement Effects] and no hexside of the Level 1 Location of R21 is considered a Road hexside until cleared. Rubble from the destroyed Blockhouse is a half-level obstacle to any LOS/LOF which lies within the bridge artwork in hex R21 and may be cleared (B24.71) with an additional cumulative -1 DRM. Once a TB exists across the R20/R21 and R21/R22 hexsides, remove the rubble counter completely. From that point on, hex R21 is considered a normal Arnhem Bridge hex (i.e., the Blockhouse no longer exists)[EXC: Movement effects; 5.21].

EX: Assuming rubble from the Blockhouse is in hex R21, a unit on the roof in hex Q20 has clear LOS to a unit on the bridge in hex R22, since the unit can see "over" the rubble. However, the same unit on Level 1 in Q20 would not have LOS to the Level 1 Location of hex R22 since the LOS crosses through the bridge artwork in hex R21. Thus the rubble serves as a half-level LOS obstacle.

5.21 *MOVEMENT:* Once rubble has been placed on the bridge from the destruction of the Blockhouse (even if subsequently cleared), Infantry units may enter the Level 1 Location of R21 at a cost of 2 MF [EXC: rubble has no additional effect on units Scaling any vertex of hex R21; B23.424]. Fully tracked vehicles enter at a cost of 3 MP while other vehicles pay 1/2 of their printed MP Allotment. The D2.11 and D3.51 doubling for TCA/VCA changes are NA and no Bog Checks are required for movement or VCA changes.



5.22 Hidden mines may be placed at Level 1 in hex R21 while rubble exists from the destroyed Blockhouse. Should the rubble be cleared (5.2) while there are hidden mines, place a Known Minefield counter of the appropriate type and strength in the Level 1 Location of R21. Such mines are then treated as Known (F.7) for all purposes [EXC: Dummy minefields are NA; F.7B].

5.3 *TEM:* The CA TEM of the Blockhouse applies to all Direct Fire attacks [EXC: FT, AP Ammunition; B30.35]. Indirect Fire attacks use the NCA TEM. Once destroyed, normal stone rubble TEM applies until cleared.

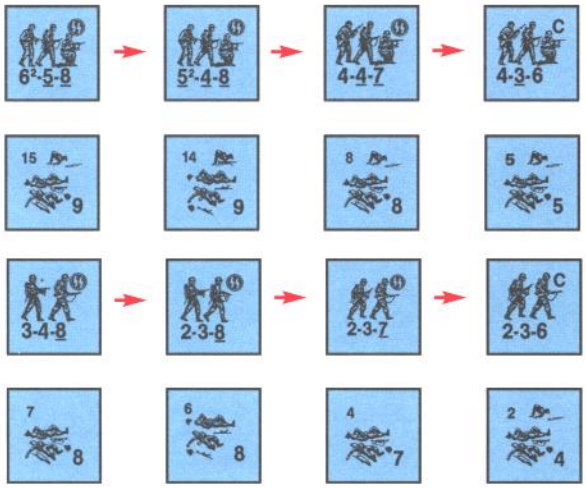
EX: A German 150mm FFE scores a CH (C3.7) vs the Blockhouse. Since the OBA is ≥ 100mm, the Blockhouse is eliminated (B30.92). A stone rubble counter is placed in hex R21. This rubble exists only "on" the bridge (not under it). Assuming the British player Controlled the Location at the end of the CG Scenario, he could set up hidden mines (if otherwise allowed by RePh Setup restrictions) at Level 1 in hex R21. Clearing the rubble is possible as normal except that a cumulative -1 DRM applies and only a single successful clearance attempt is required to completely remove the rubble counter (B24.71). Should the rubble be cleared, any mines previously set up in the bridge Location of R21 are immediately placed onboard as a Known minefield. From the point of clearance on, R21 is considered a standard Arnhem Bridge hex and the Blockhouse, except for movement effects (5.21), is considered to have never existed.

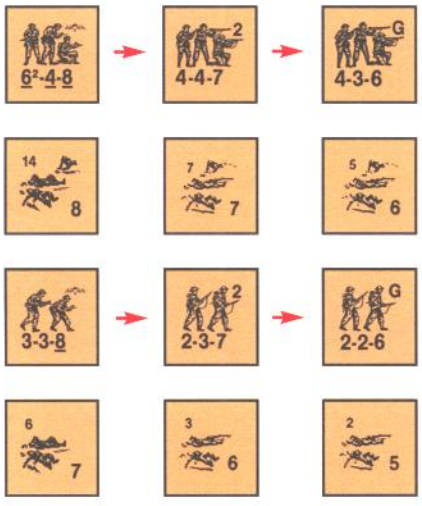
6. UNIT REPLACEMENT [9]

6.1 Due to the unique unit structure and experience levels of the troops that fought in Arnhem, special unit replacement applies for MMC of both sides. A19 is modified as follows for all non-crew MMC. Assault Engineer (H1.22) ELR is always 5 [EXC: E1.22] and their Morale Number is always considered underlined.

6.2 *SS UNIT REPLACEMENT:* The progression for all SS MMC subject to Replacement is shown below. The Morale Number of SS MMC is never considered underlined for any purpose [EXC: Assault Engineers; 6.1]. All German non-crew MMC that Battle Harden follow the reverse of this order.

6.21 SS 4-4-7s/2-3-7s are considered Elite (A1.25). Any SS MMC Replaced with a conscript MMC is considered Inexperienced (A19.3) for all purposes and is no longer considered SS (A25.11). All German 4-3-6s/2-2-6s become SS 4-4-7s/2-3-7s when they Battle Harden.



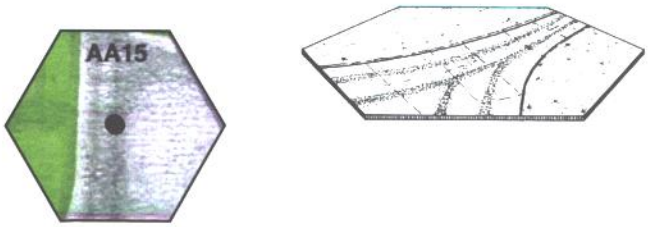


6.3 *BRITISH UNIT REPLACEMENT:* All British MMC are considered to have an underlined Morale Number (A1.23) until such time that the British ELR drops below 5 [EXC: Assault Engineers; 6.1]. During any scenario (or portion thereof) in which the British ELR is not 5, treat all non-crew British MMC [EXC: Assault Engineers; 6.1] as having a non-underlined Morale Number and apply the illustrated progression to British MMC subject to Replacement. British 4-4-7s/2-3-7s which Battle Harden always improve to 4-5-8s/2-4-8s (which Replace normally).

6.31 *COMMANDO REPLACEMENT:* British Commando MMC (9.617; H1.24) which suffer Replacement while the British ELR is < 5 (i.e., Replaced by a 4-4-7/2-3-7) are no longer considered Commando for any purpose (even if subsequently subject to a Battle Harden result).

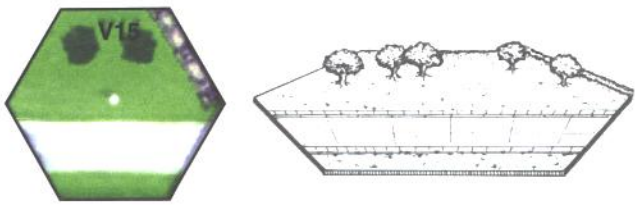
EX: A German stack consisting of a 9-1, a 4-4-7, and a 4-3-6 is fired on by a British 6-4-8 and 4-4-7 resulting in a 1MC. The German ELR is 2. The 9-1 passes the 1MC with a DR of 5. The 4-4-7 fails its 1MC with an original DR of 11 and is Replaced with a broken 4-3-6. This 4-3-6 is no longer considered to be an SS squad. The remaining 4-3-6 rolls an original 2 DR and thus is subject to HOB. The 4-3-6 HOB DRM is +1 for being inexperienced. The final HOB DR is an 8 resulting in the 4-3-6 Battle Hardening to a 4-4-7 SS MMC. Note that the resultant 4-4-7 is now an SS squad (even if it was not so originally).

The German return fire results in a 3MC. The British ELR is 4. The 6-4-8 fails with an Original 11 MC DR. The 6-4-8 is Replaced with a broken 4-4-7 (had the 6-4-8 been an Assault Engineer squad, or had the British ELR been 5, it would instead have been Replaced by two 3-3-8 HSs). The original MC DR for the 4-4-7 is a 2, resulting in HOB. The 4-4-7 Battle Hardens and is replaced with a 4-5-8.



7. WIDE CITY BOULEVARDS [10]

7.1 Any road hex containing a slightly enlarged, black center dot (EX: F12) is a wide city boulevard (B7). All rules for wide city boulevards apply unchanged in these hexes. Street Fighting (A11.8) and Dash (A4.63) are NA "across" a wide city boulevard.



8. PARTIAL ORCHARDS

8.1 Partial Orchards allow for tree-lined roads (akin to B14.6) to exist, but with the trees generally on only one side of the road. Any whole hex containing only two round, green orchard symbols is a Partial Orchard hex. Hex M15 is an example of a Partial Orchard hex. All rules pertaining to Orchards apply to Partial Orchards unless otherwise stated.

8.2 *LOS:* The orchard obstacle/hindrance of a Partial Orchard hex is not Inherent Terrain. A Partial Orchard's effect on LOS/LOF is determined by which of the Partial Orchard's hexsides/vertices are crossed by that LOS/LOF. The three contiguous hexsides closest to the hex's orchard symbols (including the two vertices joining them together) are termed Orchard Hexsides; the three hexsides farthest from the hex's orchard symbols (including their four vertices) are termed Open Ground Hexsides. If a LOS crosses one or more of the Partial Orchard hex's Orchard Hexsides, that hex is treated as an orchard hex; for LOS crossing only one or more Open Ground Hexsides, that hex is treated as an Open Ground hex.

8.21 Since Partial Orchard hexes are not Inherent Terrain, the orchard obstacle/hindrance in them is treated as Inherent Terrain for LOS along a hexside that is common to two Partial Orchard hexes only if that hexside is an Orchard Hexside for both of those hexes.

8.3 *MOVEMENT:* For movement purposes when entering a Partial Orchard hex, units are considered to be entering an Orchard hex if they cross an Orchard Hexside, and entering an Open Ground hex if they cross an Open Ground hexside [EXC: OBA, Residual FP and TPBF are resolved as though any target was entering an Open Ground hex regardless of hexside crossed].

8.31 *RIDERS:* AFV Riders may only enter/exit a Partial Orchard hex across an Open Ground hexside [EXC: if crossing a road hexside; D6.21].

8.4 Partial Orchard hexes are not considered Concealment Terrain for any purpose.

9. A BRIDGE TOO FAR CAMPAIGN GAMES

9.1 *INTRODUCTION: A Bridge Too Far* Campaign Games offer two or more players a series of interrelated scenarios pertaining to the 2nd Parachute Battalion's grim struggle during September of 1944 in the area surrounding the main road bridge in Arnhem, Holland. Up to four scenarios may be played per "day" with CG Victory determined only at CG end [EXC: Sudden Death Victory; 9.6212] by how well the players fared during this variable number of scenarios.

9.11 *BETWEEN SCENARIOS:* Between Campaign Game (CG) Scenarios, players make use of a special CG phase called the Refit Phase (RePh), wherein each side takes stock of what has happened and prepares for further combat in the next CG Scenario. In the RePh, the players may receive reinforcements, while they may also purchase Reinforcement Groups (RG) using Campaign Purchase Points (CPP). Reinforcement Groups in the form of infantry platoons (and sections), AFV platoons, OBA modules, and gun batteries—to name a few—may be selected by the players.

9.12 *CASUALTIES:* Casualties suffered in a CG-Scenario/its-subsequent-RePh must be placed aside since their Casualty VP (A26.2) total is used to determine a DRM for ELR Loss/Gain (and possibly CG Victory Conditions). The Casualty VP value of a unit unable to be removed (e.g., wrecked AFV) should be noted on scrap paper.

9.13 *TEAM PLAY:* The CGs herein (9.51–.53) are easily adapted—indeed, recommended—for team play (EX: one player commands all of the British forces and the others command the various German KG elements, etc.). If desired, an overall commander may determine which RG his subordinate players will receive, assigning each to the one who requires it most.

9.14 *CG ROSTER & RG PURCHASE RECORD:* The enclosed printed copies of the "CG Roster" and "RG Purchase Record" should be photocopied and used by CG players to record important CG information. See RePh step 9.617 for information on updating the CG Roster; see 9.618 for specifics on the RG Purchase Record.

9.15 *CHAPTER R DIVIDER:* The Chapter R divider provides a handy reference for Block Locations and designations. Additionally, holding boxes are provided for Retained units of both sides as well as a casualty box for the British Walking Wounded.

9.2 *DEFINITIONS & ABBREVIATIONS:* The following glossary explains abbreviations and important terms used frequently in *ABtF* Campaign Games.

ABtF: *A Bridge Too Far* ASL Module.

Block: All Locations contained entirely within a series of adjacent map-edge/riverbank hexes and/or road hexes sharing a road hexside. The Chapter R Divider contains a reduced size map indicating the various Blocks and their boundaries. Players are encouraged to refer to this diagram when determining Setup Areas during the RePh (9.605).

Campaign Exhaustion DRM: Abstract DRM (9.6162) for RG Strength (9.6181), ELR Loss/Gain (9.6202), and British Ammunition Shortage (9.6201) determination.

CG: Campaign Game

CG Date: Each CG Date consists of the calendar date plus a Dawn (AM), Afternoon (PM), Evening (Eve), or Night (N) reference (e.g., "18 Eve"). One CG Scenario may be played per CG Date—hence up to four CG scenarios may be played per calendar day: one at dawn (AM), one in the afternoon (PM), one in the early evening (Eve) and one at night (N).

CG End: The CG Scenario End (see CG Scenario End definition below) that occurs on the final CG Date listed in 9.51 – .53 for that CG is also the CG End (i.e., is the end of the CG). If one side concedes CG victory, the CG Scenario End that occurs at the conclusion of the final CG Scenario played in that CG is also the CG End. CG Victory is determined at CG End unless already decided by Sudden Death Victory (9.6212).

CG Night Scenario: Any CG Scenario taking place on a CG Date with an "N" in the CG Date (EX: 19N).

CG Roster: The sheet used to record information for each CG Date. One line is filled out for each CG Date. Players are urged to photocopy the facsimile provided herein.

CG Scenario End: Occurs when both the CG scenario being played and the ensuing RePh step 9.603 have been completed.

CPP (Campaign Purchase Points): Used to buy RG in RePh step 9.617.

Depleted: A RG not received at Full Strength.

Eliminated: Units/Equipment "Eliminated" in a CG are removed from that side's OB.

Enemy Setup Area: All Locations in ≥ 1 enemy Controlled Block(s) (see also 5.1).

Enterable: A hex/Location that the unit in question could enter (disregarding its occupation by a Fortification/enemy-unit) during a hypothetical MPh/APh. If defined in relation to a Setup/Entry Area (or to a "path" of hexes drawn to/from/between such), the hex/Location must be Enterable along that path. Terrain-Blaze Locations and river Locations are not considered Enterable.

Entry Area: Each map-edge hex that contains a large arrow with a red, grey, grey and black, or black background color, plus each mapedge hex within four hexes of that hex [EXC: KG Graebner's Entry Area is limited to hex R23].

Equipment: Any (non-inherent) SW/Gun/Vehicle/Daisy-Chain that can be part of a side's OB. Any counter that can be Portaged/driven/Manhandled about on the map.

Escape: The process (9.6054) by which a unit attempts to leave an Isolated area (9.6053).

FPP (Fortification Purchase Points): Used to purchase Fortifications in RePh step 9.619.

Friendly Setup Area: All Locations in ≥ 1 friendly Controlled Block(s) (see also 5.1).

Front Line Location: Any road hex adjacent to both a Friendly Setup Area and an Enemy Setup Area, or any Location in a Friendly Setup Area adjacent to one/more Front Line road hexes [EXC: the Blockhouse (or the resultant rubble if destroyed; 5.2) is never considered a Front Line Location].

Full Strength: A RG received *in toto.*

Initial Scenario: The first scenario of a CG (see 9.5). A CG's Initial Scenario gives each side's setup/entry restrictions, starting OB (including certain predetermined RG and a pool of CPP to spend on additional RG), and any SSR applicable only to that Initial Scenario.

Idle Date: A CG Date in which both sides have picked an Idle chit (meaning that no scenario is played); 9.62132.

Kampfgruppe (KG): A German unit organization. There are four German KGs in *ABtF*: Harder (H), Knaust (K), Brinkmann (B), and Graebner (G).

OB (Order Of Battle): All the units, Equipment and Fortifications of a side that are eligible to participate in the next CG Scenario. Includes all Retained units and Equipment, plus all RG purchased since the last CG Scenario.

Pltn (platoon): A CG Infantry or AFV RG organization type.

RePh (Refit Phase): The series of steps performed between CG Scenarios. All Chapter R rules beginning with "9.6" are *ABtF* CG RePh rules/steps.

Retained: All units/Equipment in a side's OB that are available for on-map/off-map setup in the next CG scenario; i.e., all that remain available from the last CG scenario, all RG purchased since the last CG Scenario but prior to the current CG Scenario, and all CG designated reinforcements (including Walking Wounded; SSR CG 19).

RG (Reinforcement Group): Usually a number of units/Equipment purchased, as a group, for use in the CG as additions to a side's OB. Also includes FPP, SAN increase, OBA, Pre-Registration, and Offboard Observers.

RG Purchase Record: The sheet used to record the units-in/information-for each CG RG type. One line is filled out for each RG purchased. Players are urged to photocopy the facsimile provided herein.

Sect (Section): A CG RG organization type.

Setup Area: Each Location within a Block Controlled by a side. Road hexes [EXC: The Blockhouse; 5.1] and Uncontrolled Territory are never considered part of a Setup Area though some units may be permitted (or required; 9.6053) to set up in such Locations; 9.6214.

Shift: The RePh process by which a Retained unit attempts to transfer from its current Setup Area to another Friendly Setup Area or Eligible Entry Area; 9.613.

Strategic Location: Each (non-rooftop) building/rubble/Entrenchment Location and each Location that is occupied by an unhooked, non-malfunctioned, unlimbered Gun, is a Strategic Location. If an unhooked, non-malfunctioned, unlimbered Gun is used to declare a Location as a Strategic Location (when that Location would not otherwise be so), that Gun (owner's choice if more than one is present) must be manned by a (fully qualified; A21.13) crew and must set up in that Location for the next CG Scenario. Strategic Location Control is important for Block Control and Setup Area determination (9.605).

Strength: An Infantry RG is received either at Full or Depleted Strength.

Uncontrolled Territory: All Locations not contained within a Friendly or Enemy Setup Area.

Weapon: Any SW/Gun/Vehicular-armament/Daisy-Chain using the IFT/TH table(s) to cause damage to the opponent.

9.3 *THE CG SCENARIOS:* The parameters of the Initial Scenario for each CG are given in 9.51–9.53. Additional scenarios for that CG are generated in a special between-CG Scenario sequence called the Refit Phase (RePh); 9.6. The CG continues until the specific CG Victory Conditions are fulfilled by one side or the completion of the last CG Scenario of that CG, whichever comes first. The "start lines" (or, Setup Areas, to use the game term) in a CG scenario are determined by Locations Controlled by both sides at the end of the last-completed CG Scenario (thus determining the Blocks they Control during the RePh).

9.31 *CG BALANCE PROVISIONS:* Should each player wish to play the same side (A26.5) the following Balance is used:

German: Each German Personnel counter possessing a FT/DC or manning a Gun is Fanatic.

British: Each British Infantry unit in a Fortified Building Location is Fanatic.

9.4 *CAMPAIGN GAME SPECIAL RULES:* All *ABtF* CG SSR below apply in all CG scenarios.

CG1. *MAP:* The entire *ABtF* map is used in all CG Scenarios.

CG2. *ABtF SSR:* All *ABtF* SSR are in effect except as amended below.

CG3. *WEATHER:* EC, Weather, and Wind Force (and direction, if necessary) for each CG Scenario are determined in RePh step 9.6216 [EXC: for each Initial Scenario they are listed in that scenario's specific SSR].



CG4. *GAME END:* The Turn Record Chart for all CG scenarios is located in the river portion of the ABtF map (the southwest corner). All CG Scenarios have a variable game length. At the end of Game Turn 5, and at the end of each Game Turn thereafter, the British player makes a Game End dr: if it is ≤ the circled number in the current turn's box on the ABtF CG Turn Record Chart, the scenario ends immediately (e.g., at the end of Game Turn 6 a day scenario will end on a Game End dr of ≤ 3). There

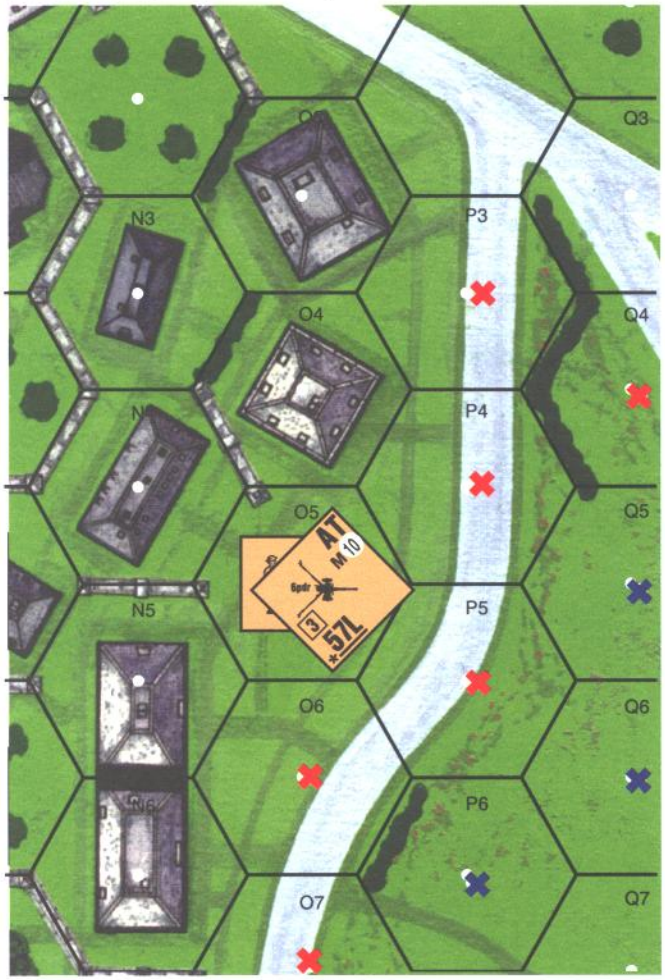
is a +2 drm to this dr during CG Night Scenarios. Additionally, a CG Scenario ends immediately if both the ATTACKER and DEFENDER agree to end the scenario.



CG5. *GUNS:* A Gun set up in a Pillbox or Fortified Building Location may never be moved during the course of that CG [EXC: if dm/Eliminated]. Such a Gun, once revealed, may never again set up hidden, but may be set up concealed. Otherwise, provided it sets up within a Friendly Setup Area, an Emplaced Gun (only) may set up hidden (at no cost in FPP) in CG Scenarios. Each non-vehicular Gun that ended the last CG scenario on-map must set up within three hexes of the Location in which it ended that scenario [EXC: within two hexes if it sets up in Uncontrolled Territory; 9.6214] unless it meets one or more of the following criteria (in which case it may set up in any enterable Location in a Friendly Setup Area):

- If it is a dm MTR
- If it begins the CG Scenario hooked up to a Mobile vehicle
- If an Idle Date has been generated since the last CG Scenario played

Each Gun in a Setup Area that contains Personnel may be set up (un)hooked/(un)limbered/(non-)dm unless otherwise prohibited.



EX: Assuming Block H was under friendly Control, a Gun which ended a CG Scenario in O5 could set up anywhere within Block H which was also within three hexes of O5. The Gun could also set up in the hexes marked with a blue "X" (provided the hexes were Uncontrolled Territory). Note: should the Gun set up in any of these hexes, it could not do so using HIP since none of these hexes are within a Friendly Setup Area. The Gun could not set up in the hexes marked with a red "X" as it could not be Emplaced in these hexes (see 9.6214). A mobile vehicle in O5 could also set up in hexes marked with a red "X".



CG6. *OBA:* The Germans are limited to using a maximum of two OBA modules per CG Scenario. The British are limited to three OBA modules per *calendar day* (i.e., no more than a total of 3 modules over the 4 CG Dates of a calendar day) with no more than 1 module per CG Scenario. "Usage" of a module is defined as having a radio, field phone, or Offboard Observer in play at any time during a CG Scenario. A radio/field-phone counter (and its associated OBA module) is immediately Eliminated when its OBA is exhausted, or in the RePh if its OBA was "used" as per SSR CG 10 in the previous scenario. On an OBA RGs CG Date of purchase, its radio or field phone is placed with Personnel in any Friendly Setup/Entry Area [EXC: field phones may be used only by the German player, and only if they set up on-map]. Each field phone's Security Area (C1.23) must comprise Enterable (by Infantry) Locations that are not within an Enemy Setup Area, and must be drawn to a Friendly Entry Area. A new Security Area may be recorded for each CG Scenario. If no legal Security Area can be traced during setup, that field phone is Eliminated but the player may immediately add a new radio or field phone (for the Eliminated phone's OBA module) to some other Friendly Setup (or, for the radio, Eligible Entry) Area.

CG7. *TERRAIN CHANGES:* During the course of the same CG, alterations of printed mapsheet terrain are bound to occur, all of which become "permanent" (barring subsequent Clearance/Removal if applicable). All counters for Fortifications, rubble, Breaches, TB, shellholes and wrecks are left on-map from scenario to scenario. Any terrain Blaze at scenario end is resolved as per RePh 9.609. A wreck in a non-building terrain Blaze is not removed from play; instead, it remains on-map (still treated as a LOS Hindrance) and in step 9.6095 of the next RePh will become a Burnt-out Wreck (see SSR ABtF 14).

CG8. *SNIPERS:* Due to the widespread sniper activity, each side must place two Sniper counters on the map at the start of each CG Scenario. Both friendly Snipers must set up as per the first two sentences of A14.2, with ≥ 12 hexes between them (or as far apart as possible if they cannot set up 12 hexes apart). When a Sniper attack can occur, make a dr to randomly determine which one actually attacks (assign numbers so that each has an equal chance). This procedure is also used when resolving Civilian Interrogation (see SSR ABtF 7). The SAN is never altered by the presence of two friendly Snipers in play simultaneously. Any result (e.g., Pin) affecting a Sniper counter affects both friendly Snipers simultaneously.

CG9. *REINFORCEMENTS:* All Infantry/AFV RG purchased for the current CG Scenario [EXC: those allowed to set up on map], as well as all units currently Retained off-map, must enter on/after Turn 1 [EXC: CG Night Scenarios; SSR CG 24] during the first non-Idle CG Date following their purchase (or, for units that are Retained off map, the CG-Scenario/RePh during which they exited the map). Some, all or none (including individual RG units) may enter on each turn but any failing to do so prior to the end of the CG Scenario are considered Eliminated with full CVP awarded.[11]



BRITISH INFANTRY/AFV RG: Enter at any red Entry Area (centered on hexes A6 and A18).



GERMAN INFANTRY/AFV RG: RGs from KG Harder enter at any grey entry area (centered on hexes A5 and A17), RGs from KG Knaust enter at any grey and black entry area (centered on hexes F0, M1, V0, and GG1), RGs from KG Brinkmann enter at any black entry area (centered on hexes JJ4, JJ15, and JJ20). Units of KG Graebner enter from the south edge on Hex R23 (only).

CG10. *RETAINED RG:* Each purchased RG, or part thereof (including any Pre-Registered-hex[es]/Offboard Observer assigned to an OBA RG), is Retained until Eliminated/Recalled in a CG Scenario or its subsequent RePh. For purposes of this rule, an OBA RG is considered "used" if ≥ one FFE:1 counter from that module was placed during the last scenario. A Retained OBA module's Draw Pile (C1.211) is restored to the number of red and black chits it had at the start of the previous scenario, and its radio or field phone is restored if it was Eliminated. During the RePh, each radio/field-phone may be freely relocated within its present Setup Area, or Shifted (9.613), and each Pre-Registered hex of a Retained OBA module may have its hex coordinate changed to that of a legal new hex.

CG11. *MAP EXIT:* No units may exit the map during play [EXC: Recall (SSR ABtF 15); *German* Guards (A20.5) may exit with their prisoners along the north, east, west map edges, or at hex R23 and are Retained in any Entry Area on that map edge].





CG12. *CONCEALMENT:* The following CG SSR replaces SSR ABtF 1. All Infantry (and their possessed Weapon[s]) setting up in Concealment Terrain may do so concealed, regardless of LOS. Such concealment need not be purchased; i.e., they are placed freely. Otherwise, A12.12 and A12.34 apply. The side setting up first may conceal all eligible units before the other side views its setup; likewise, the side setting up second may conceal all eligible units before his opponent views that setup. Concealment counters purchased in the RePh (9.619) are intended for use as Dummies.

CG13. *MISCELLANEOUS:* A 5/8" counter set up beneath a Trench counter (as per B27.51) may never be removed from below that counter unless dm [EXC: if Eliminated]. Exchange of Fortified Locations for tunnels is NA.

CG14. *SELF RALLY:* Each side may attempt to Self Rally two (not just one) non-Disrupted, broken MMC provided (as per A18.11) both attempts are carried out before other friendly MMC Rally attempts.

CG15. *OPTIONAL VEHICULAR EQUIPMENT:* All desired optional armament (e.g., AAMG, Sz) must be rolled for individually (H1.41). Consult the applicable Vehicle Note(s). If so equipped, no additional CPP cost is assessed.

CG16. *WEAPON REMOVAL:* A Retained/Purchased vehicle may begin (i.e., set-up/enter) a CG Scenario with any/all eligible armament Removed (D6.631).

CG17. *BRITISH AMMUNITION SHORTAGE:* The British suffer an increasing shortage of ammunition. The starting level of shortage is designated by SSR. The levels and penalties are shown in the chart below. These penalties apply only to British Retained/Purchased SW/Guns excluding all radio, DC/FT, and captured equipment and are cumulative with A21-21.22 as applicable.

AMMUNITION SHORTAGE CHART

LEVEL	ORIGINAL DR FOR UNIT SUBSTITUTION (A19.131)	B#†	ELR LOSS DRM (9.6202)
One	12	0	+1
Two	12	-1	+2
Three	≥ 11	-1	+3
Four	≥ 11	-2*	+4
Five	≥ 10	**	+5

† SW/Vehicle/Gun B#s reduced by the indicated amount per A19.131

* No British SW/Gun repair attempts may be made during the CG Scenario (but may be done normally in the RePh). British may not use Intensive or Sustained Fire [EXC: OVR Prevention/FPF; C5.64, A8.31]. ATMM Check dr (see SSR ABtF 6) receive an additional +1 drm.

** All SW/Guns automatically malfunction after their first use. No British SW/Gun repair attempts may be made during the CG Scenario (but may be done normally in the RePh). British may not use Intensive or Sustained Fire [EXC: OVR Prevention/FPF; C5.64, A8.31]. ATMM Check dr (see SSR ABtF 6) receive an additional +2 drm.

EX: Assume Ammunition Shortage Level Two is in effect. A British PIAT will malfunction on an original TH DR of 9 and be permanently removed on an original TH DR of ≥ 10 (A.11). A British 6pdr AT Gun has a circled B# of 11 and will likewise be permanently removed an on original TH DR of 12 (A.11). A captured German DC would malfunction on an original 10-12 (A21.11) but is not otherwise subject to the CG 17 penalties.



CG18. *STATUS MARKERS:* During its Setup, each side may opt to secretly record the BU, CE, TCA, Bogged, immobilized, Abandoned, malfunctioned, and/or disabled status of its vehicles/Guns in lieu of placing the appropriate marker(s) on them. Place the actual marker(s) when the piece is non-concealed and within 16 hexes of any enemy ground unit which has LOS to it.



CG19. *WALKING WOUNDED (WW) MMC:*[12] Each RePh, the British player may replace a portion of Eliminated British MMC with Walking Wounded MMC. During play, each British MMC, regardless of type [EXC: WW MMC], removed due to "Double Break" (A10.3), Casualty MC (A10.31), or Fate (A10.64) should be placed in the WW box on the Chapter R Divider. In RePh step 9.6102, for each squad-equivalent (FRD) in the WW box, the British player receives one 4-4-7 MMC in any Friendly Setup Area(s) (unused MMC are discarded and may not be accumulated from one CG Date to the next). Each such 4-4-7 should be marked with a "Walking Wounded" counter to reflect its status. A WW MMC has a 3 MF allotment which cannot be increased for any reason, including while Routing or Berserk [EXC: while being carried by any form of conveyance], its IPC is reduced to 2, and it receives a +1 DRM for all CC attacks it makes while all CC attacks made against it receive a -1 DRM. Under no circumstances may a WW MMC become unwounded. A HS created from a WW squad is marked with a Walking Wounded MMC counter and suffers all the penalties associated with that status. A SMC created by a WW MMC is not considered WW. Two WW HS may Recombine into a WW squad per A1.32. If a non-Wounded HS and a WW HS Recombine, the resulting squad is considered WW and is marked as such. HoB (A15) and Substitution (A19) are handled normally for WW MMC (see also 6.3). WW effects are cumulative with Ammunition Shortage (CG SSR 17) and Water Shortage (CG SSR 21). WW Morale Numbers are never considered underlined (A1.23).

EX: The British player has two 6-4-8s, a 4-5-8, a 2-4-8, and two 3-3-8s in the WW box during the RePh. He may now place four 4-4-7s, each marked with a WW counter, in any Friendly Setup Area(s). The remaining HS in the WW Box is removed from play (no CVP are awarded when this MMC is "discarded" as its CVP was tallied during play).

CG20. *DAWN/DUSK:* A +1 LV Hindrance applies to all non-CC attacks for the first three Game Turns of any Dawn (AM) CG Date and during Turns 4–7 (as applicable) of any Evening (Eve) CG Date.

CG21. *BRITISH WATER SHORTAGES:*[13] The British troops suffered a critical shortage of fresh drinking water. Beginning on the 20AM CG Date and each CG Date thereafter, the following restrictions apply to all British Personnel units [EXC: during any CG Scenario in which rainfall occurs (E3.51) for 3 or more consecutive Player Turns, Water Shortage restrictions are removed for the remainder of that CG Scenario and the immediately following CG Date (only); if an Idle CG Date is generated during RePh Step 9.62132 for this CG Date, the Water Shortage Penalties resume with the next non-idle CG Date]: no units may use Double Time movement and all Personnel have their Broken Morale Level reduced by one.

CG22. *GERMAN ATTACK COORDINATION:*[14] Each CG Date, the German player may purchase no more than one "I" type RG and one "A" type RG from any single KG unless he has purchased a minimum of one "I" type RG and one "A" type RG from ≥ 3 of his 4 available KGs [EXC: if any KG has reached its CG Maximum for all I and/or A type RGs, that RG type may be ignored for purposes of this rule (i.e., consider it to have met the minimum purchase requirements for the now unavailable type(s))]. Gun and General RGs ("G," "O," "M," and "T" types) may always be purchased (up to the CG Scenario and CG Maximums) regardless of the KG Purchase status.

EX: The German player has 38 CPP available. He elects to purchase nothing for KG Graebner; an I1 RG (5 CPP) and an A3 RG (7 CPP) for KG Knaust; an I2 RG (7 CPP) and an A4 RG (5 CPP) for KG Brinkmann; and an I6 RG (3 CPP), an I7 RG (4 CPP) and an A5 RG (4 CPP) for KG Harder; for a grand total of 35 CPP. Had he elected not to purchase either of the RGs from KG Knaust or Brinkmann, he would have been unable to purchase the second "I" type RG for KG Harder.

EX: The German player has 36 CPP available. He elects to purchase nothing for KG Graebner. For KG Knaust, he purchases an I1 RG (5 CPP) and an A4 RG (5 CPP). For KG Brinkmann he purchases an I2 RG (7 CPP) and an A3 RG (7 CPP). KG Harder has no I Type RG remaining (having all been purchased in prior CG Dates) so the German player elects to purchase an A6 RG (4 CPP) and thus fulfills the Attack Coordination Requirement. The German player is free to expend the remaining CPP on KGs as he sees fit.

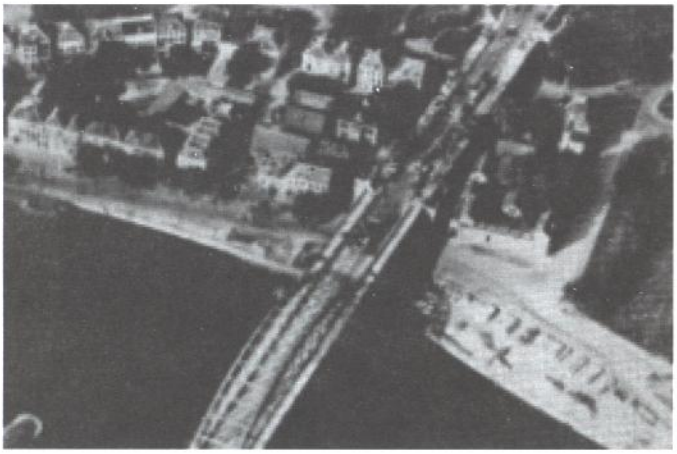


CG23. *BRITISH FANATICISM:* Immediately prior to setup for the 18AM CG Date, the British player must secretly designate one multi-hex building he currently Controls as the British Headquarters. To be eligible for use as the Headquarters, ≥ 1 Location of this building (including Rooftop Locations) must have LOS to ≥ one Level 1 Location on/between R15 and R23. All British Infantry is Fanatic (A10.8) while in this building. This SSR supersedes SSR ABtF 8 (i.e., British units may be Fanatic in building S11 if the British player so selects that building, but are not automatically so). The identity of the British Headquarters is immediately revealed when any unit uses the Fanaticism benefit gained by this SSR.



CG24. *CG NIGHT SCENARIOS:* The NVR of a CG Night scenario (identified by an "N" in the CG Date) is determined in RePh step 9.6214. The side(s) selecting the Attack chit in a night scenario is considered the Scenario Attacker (E1.4; despite usually having units available to set up on-map); a side selecting an Idle chit is the Scenario Defender (E1.2). The Scenario Defender in a CG Night Scenario has automatic Freedom of Movement (following any enemy attack other than a successful Ambush; E1.21) for his two best Leaders. Scenario Attacker(s) units use Cloaking (E1.4-.43), even if they set up on-map [EXC: if < 1 squad-equivalent is available in any particular Setup Area or Entry Area, the units within this Area receive no Cloaking counters (but may set-up/enter concealed if otherwise eligible)]. Cloaking counter HIP is NA. Each Friendly Setup Area is considered separately for the purposes of Scenario Defender HIP (E1.2) and Cloaking (E1.4). On-map Cloaked SW need not be dm. German Scenario Defender reinforcements Purchased/Retained-off-map may enter at an Eligible Entry Area only following a reinforcement dr < the current Game Turn number (one dr, made during step 1.11A in the RPh, applies to all RG/Units, regardless of Entry Area; units "freed" by this dr may enter on/after the current turn), or automatically once any Scenario Defender unit has been attacked by other than OBA/Sniper or has seen a Known enemy unit. All such reinforcements have automatic Freedom of Movement (E1.21). A reinforcing vehicle with a radio releases other friendly on map vehicle(s) with radios as per E1.21.

9.5 *INITIAL SCENARIO:* First select one of the CGs listed below. Included there is the information needed to play that CG's Initial Scenario. For the Initial Scenario, players begin with RePh step 9.617 (Purchase Reinforcement Groups) and complete RePh steps 9.617–9.621 (i.e., all steps preceded by a "†" in the RePh Sequence listing; 9.6). For each Initial Scenario, the actual Strength of each OB-given and purchased (RePh step 9.617) RG must still be determined normally (RePh step 9.6181). Leaders received, if any, are determined in RePh steps 9.6183. In the Initial Scenario of CGs I and III, the Germans set up first and the British move first. Furthermore, in these CGs the British player is assumed to have selected an "Attack" Initiative chit and the German player an "Idle" chit (9.62132) for purposes of 9.620. In the Initial Scenario of CG II, the British set up first and the Germans move first. The German player is assumed to have selected an "Attack" Initiative chit and the British player an "Idle" chit (9.62132) for purposes of 9.620. Some Strategic Locations (and Blocks) may be identified as either British Controlled, German Controlled, or Uncontrolled at CG Start. If not otherwise designated, all Locations outside the initial setup areas designated by the Initial Scenario are not Controlled by either side.



9.51 ABTF CAMPAIGN GAME I: BLOCK BY BLOODY BLOCK

The main force of the British 1st Airborne began landing amid confusion west of Arnhem after midday on the 17th of September. Major delays were experienced organizing and taking inventory of the men and equipment which had landed safely. Communication was limited to a few nearly useless, low power wireless sets. Nonetheless, the advance elements, including the majority of the 2nd Parachute Battalion, set off in three pincers for the bridge.

CG LENGTH: This CG covers all CG Dates from 17N–19AM (6 CG Scenarios)

CG VICTORY CONDITIONS: Provided they Control 4 of the following 5 Blocks, the British win at the end of the CG if they have amassed CVP ≥ 3 times the CVP they have lost.

VICTORY BLOCKS: H, I, J, K, L (see the reduced-size map on the reverse of the Chapter R Divider).

CHIT LIMITS: British — 5 Attack, 5 Idle
German — 4 Attack, 5 Idle

INITIAL GERMAN OB

[ELR 3]: {SAN 3}

Elements *Stadtkommandant Arnheim* Security Force:
set up ≤ 2 hexes from hex T7:
SS Rfl Pltn x 1 | 50L AT x1 | 2-2-8 x1

set up on/between hexrows O and R with no more than 1 MMC per hex:
VG Pltn x1 | SS Rfl Pltn x1

set up ≥ 3 hexes from hex R22:
4-3-6 x3 | LMG x1 | 7-0 x1

set up with any other on-map German group (see SSR 3):
? x6 | Fortified Location x2 | Wire x2

enter on Turn 5 on hex R23:
PSW 232 x1

Elements of 3rd Company, 21st *Panzergrenadier* Regiment, SS-Panzer Division 10 enter on Turn 1 in Convoy (E11) on hex S1 (see SSR 5):
6-5-8 x4 | 4-4-7 x2 | 8-1 x1
7-0 x1 | dmMMG x1 | LMG x1
Opel Blitz x4

enter on Turn 3 from any Eligible Entry Area(s)(See SSR 5):
10 CPP

INITIAL BRITISH OB

[ELR 5]: {SAN 3}

Elements 2nd Parachute Battalion, British 1st Airborne Division
enter on Turn 1 (see SSR 4):
10-2 x1
30 CPP

enter on Turn 2 (see SSR 4):
9-2 x1 | Jeep x2
57L AT x1 | dm 76* Mtr x1
2-2-8 x 2

INITIAL SCENARIO SPECIAL RULES

1. EC are Moderate, with no wind at start. See ABtF SSR. Night Rules are in effect. Base NVR is 3 hexes with No Moon and Scattered Clouds.

2. For RePh purposes, the initial German ELR is 4. It is reduced for the initial scenario per E1.22. The British are the Scenario Attacker and the Germans are the Scenario Defender. Majority Squad Type for the British is Stealthy, that of the the Germans is Lax. Neither side may purchase a SAN Increase RG. The "?" counters in the initial German OB are in addition to those normally granted by E1.2.

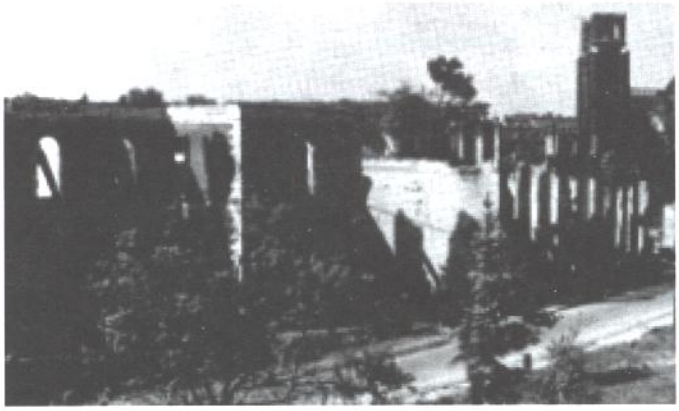
3. Wire and/or mines may not be placed on Arnhem Bridge hexes or Ramp hexes (R5-R23). Wire may not be placed on the S1-T2-S4-P2-P13-M15-L15-G18-D19-A21 road.

4. Contrary to SSR CG 24 (CG Night Scenarios), all initial forces (including RGs purchased) must enter on the indicated turn (no dr is required). See 9.6151 for units/weapons not entering as indicated. All Purchased German RGs must enter on/east of hexrow V. RGs from KG Harder may be purchased but may not enter play during 17N (contrary to SSR CG 9, they will be Retained off-map for use on 18AM).

5. The German Turn 1 reinforcements must move as a Convoy (E11.) following the S1-T2-S4-P2-P13-M15-L15-G18-D19-A21 road and attempt to exit along the west edge from hex A21. All personnel units/Weapons must enter (and remain) as Passengers. Cloaking is NA. The Convoy may only cross road hexsides and must move as far as possible each turn. Once the requirements of E11.251 are met, the German player is freed of this requirement and the PRC may (un)load normally. Any unit(s) exiting via hex A21 (whether still in Convoy or not) are Retained into either German west edge Entry Area (German player's choice). See also SSR CG 11.

6. All Strategic Locations on/east of hexrow N are under German Control at the start of the CG. All other Strategic Locations are Uncontrolled.

***Aftermath**: The British ran into stiff resistance almost immediately. The northern and center pincers were stopped near Oosterbeek. The southern pincer made steady but slow progress to the river and began to work its way eastward. There was a railway bridge just over a mile west of the main road bridge that was a key secondary objective. This railway bridge was demolished as the British approached. Turning their attention to the main road bridge, just visible in fading twilight, the men of the 2nd Para crept through the narrow streets toward the bridge. In the gathering darkness, an armored column sped south across the bridge (this was Captain Graebner's 9th SS Recon unit heading toward Nijmegen). After the column had passed, the Paras used a wide staircase as cover and assaulted the blockhouse several times before finally destroying it with a combination of PIAT, FT, and small arms fire. Ambushing a convoy of trucks heading west, they quickly set up a HQ position on the far side of the ramp, not realizing that they had chosen a building within 50 meters of the SS Police HQ. A bitter fight over these buildings ensued, with the British withdrawing to more secure positions adjacent to both sides of the bridge as daylight approached. At about 9am, Capt. Graebner's force returned and boldly attempted to force its way into Arnhem. From their positions on the upper floors and on the rooftops of the buildings, the British laid down murderous fire from their PIATs, a pair of 6-pounder anti-tank guns, mortars, small arms, grenades and gammon bombs. Expecting only a small holding force of less than 100 men, Graebner's unit was caught completely unawares by the response of the nearly 300 well armed and determined paratroopers. By the end of the day, September 18th, there were some 700 British Paratroopers hiding in the buildings near the Arnhem Road Bridge. But it became increasingly clear to Col. Frost that the situation was extremely grave. Commenting to his aide on the plans for defense of the bridge, Col. Frost stated, "We'll make them dig us out block by bloody block."*



9.52 ABTF CAMPAIGN GAME II: A DARK AND FATEFUL DAY

Colonel Frost's Parachute Battalion had solidified its perimeter near the Arnhem Road Bridge. The 700 men that had managed to reach the bridge were concentrated in a tight knot near the ramp. Some units had moved east in an effort to scout the German strength. These units were returning with alarming reports of heavy German troop concentrations as well as the presence of large numbers of tanks and self-propelled guns. The intelligence reports of only a minor German presence in and around the city of Arnhem seemed, to Col. Frost, to be "painfully reminiscent of a child's fairytale."

CG LENGTH: This CG covers all CG Dates from 19AM – 21AM (9 CG Scenarios)

CG VICTORY CONDITIONS: The Germans win at the end of any CG Scenario if they Control Block H (see the reduced-size map on the reverse of the Chapter R Divider), or at CG end if they Control the British Headquarters (see SSR CG 23) *and* there are no Good Order British MMC in any Strategic Location on/east of hexrow J.

CHIT LIMITS: British — 2 Attack, 8 Idle

German — 8 Attack, 3 Idle

INITIAL BRITISH OB

[ELR 4]: {SAN 4}

Surviving Elements of 2nd Parachute Battalion, 1st British Airborne Division set up as indicated:

Block H:
10-2
9-2
Para Pltn x2
Glider Pltn x1
Commando Pltn x2
MG Sect x2
57L AT x2
76* Mtr x3
2-2-8 x5
Jeep x1
Carrier A x1
40 FPP

Block J:
9-2
Commando Pltn x1
Engineer Pltn x1
Para Pltn x1
Breach x2

Block K:
9-2
Engineer Pltn x1
Fortified Building Locations x3
Trench x1
4-4-7 WW MMC x2

Block I:
Glider Pltn x1
4-4-7 WW MMC x3
Breach x1

Block L:
Engineer Pltn x1
Commando Pltn x1
Para Pltn x1
4-4-7 WW MMC x3
57L AT x1
2-2-8 x1

Block R:
Glider Pltn x1
Para Pltn x1
4-4-7 WW MMC x3
57L AT x1
2-2-8 x1
Foxholes x2
Breach x1

Set up with ≥ 1 other group:
10 CPP 100 FPP

INITIAL GERMAN OB

[ELR 4]: {SAN 5}

Elements of SS Panzer Division 9:

set up in ≥ 1 of the Blocks M, N, U, and V:
SS Rfl Pltn x3
HW Pltn x1
Hvy Tank Pltn x1
SPG Pltn x1 (A4; see 9.6184)

set up in ≥ 1 of the Blocks N, Q, V, W, X, Y and Z:
SS Rfl Pltn x3
HW Pltn x1
AT Btty x1
SS Eng Pltn x1
Flak Btty x1
VG Pltn x1
Med Tank Pltn x1
SPG Pltn x1
Hvy Tank Pltn x1

set up in ≥ 1 of the Blocks A, B, and E:
SS Rfl Pltn x1
VG Pltn x1
AC Pltn x1 (A5; see KG Harder)

Set up with ≥ 1 on map force:
40 FPP

enter on/after Turn 1:
25 CPP

INITIAL SCENARIO SPECIAL RULES

1. EC are Moderate, with no wind at start. See ABtF SSR.

2. The British begin the CG at Ammunition Shortage Level One (SSR CG 17).

3. The British Control the following Blocks at CG Start; C, D, F, G, H, I, J, K, L, P, R, S, and T. For the purposes of 9.620, the British have previously selected four Attack Chits since the last Idle CG Date.

4. The Germans Control the following Blocks at CG Start; A, B, E, M, N, Q, U, V, W, X, Y, and Z. Block O and the Blockhouse (hex R21) are uncontrolled. The OB Designated Reinforcements listed in 9.615 have already been included in the At Start German OB. For the purposes of 9.620, the Germans have previously selected two Attack Chits since the last Idle CG Date.

5. The British player must select any 3 SMC from his at start OB (after Leader Determination; 9.6183). These SMC begin the CG Wounded.

6. The British receive one module of 80+mm OBA with Scarce Ammunition (C1.211). Place its radio with any British SMC. The Germans receive one module of 120+mm OBA (HE only) with Plentiful Ammunition (C1.211) directed by an Offboard Observer (C1.63) at Level 2 in any hex along the east edge (secretly recorded prior to British setup) and one Pre-Registered Hex (C1.73) (secretly recorded prior to British setup).

7. Make the following terrain changes prior to setup: place stone rubble at ground level in hexes T8, T9, T11, and V16; place shellholes in hexes K21, M15, M21, O15, P12, Q12, Q15, and Q21; place 2 Burnt-out Wrecks at Level 1 in hexes R16, R17, R18, R19, and R20; place a single Burnt-out Wreck in hexes N14, O14, P13, Q16, S12, and U12.

8. The Blockhouse has been destroyed (5.2). Place stone rubble on the bridge (i.e., at Level 1) in hex R21 as per 5.2. Place a 2 factor Known A-T Minefield at Level 1 in hex R21.

9. The British player secretly records his Headquarters prior to setup (see SSR CG 23).

Aftermath: *First to feel the full brunt of the German response was Platoon Number 8 which had spread out through the industrial park to the east of the bridge. Under heavy assault from tanks and infantry, Platoon No. 8 was completely overrun and decimated. Captain Mackay and his Royal Engineers were likewise engaged in a grim struggle for the School House. The Germans assaulted this mini-fortress a number of times before the beleaguered engineers were finally forced to split up into pairs to attempt an escape to the main British perimeter. But the Germans still did not control the approaches to the bridge and thus no armor could be sent south to reinforce Nijmegen. Determined to drive the British out of their defenses, the Germans used concentrated artillery fire to turn the buildings to rubble and white phosphorous ammunition to set them alight. Captain Knaust kept up the pressure and gradually reduced the British pocket. The* coup de grace *came on the afternoon and evening of September 20th as a relentless German assault finally overcame the British defenses. Colonel Frost was wounded and captured. The remainder of the British withdrew to the burnt-out remains of the city near the river and later straggled back to the British defensive perimeter near Oosterbeek. Maj. Gen. Urquhart would later comment that when he realized, about midday on the 19th, that Col. Frost's men were cut off and could not be reinforced, "It was a dark and fateful day indeed."*

9.53 ABTF CAMPAIGN GAME III: A BRIDGE TOO FAR

CG LENGTH: This CG covers all CG Dates from 17N – 21EVE (16 CG Scenarios)

CG VICTORY CONDITIONS: The Germans win at the end of any CG Date by Controlling all stone-building/stone-rubble Locations on the map. See also 9.6212.

CHIT LIMITS: British — 6 Attack, 13 Idle

German — 13 Attack, 9 Idle

All initial scenario OBs and SSR are as in CGI, Block by Bloody Block.

9.6 REFIT PHASE:

The following steps (9.601–.62164) are performed simultaneously by each side during the RePh, which occurs after each CG Scenario. Each step (and sub-step) must be carried out in the numbered/lettered order given; those not applicable to the current situation may be omitted (e.g., if there are no Flames/Blazes on the map, skip RePh step 9.609). Those steps listed below preceded by a "†" are the only steps to be completed before setting up to play a CG Initial Scenario. Those preceded by a "✚" are the only steps necessary to achieve CG Scenario End after the last Player Turn CCPh.

RePh Sequence

✚*9.601 Conclusion of Melee*

✚*9.602 Marker Removal*

✚*9.603 Rally and Unloading*

9.604 Encirclement, Minefields, Bog, and Shock

9.605 Setup Area Determination

9.606 Encircled-Marker Removal

9.607 Equipment Possession and Hidden Fortifications

9.608 Prisoners

9.609 Extinguishing Flames and Blazes

9.610 Wounded Leaders and Walking Wounded MMC

9.611 Recombining and Battle Hardening

9.612 New CG Date and SAN Adjustment

9.613 Shift

9.614 Equipment Repair and Replenishment

9.615 OB-Given Reinforcements

9.616 CPP Replenishment

†*9.617 Purchasing Reinforcement Groups*

†*9.618 RG Strength, Weapons, Leaders, and Composition*

†*9.619 Purchasing Fortifications*

†*9.620 Ammunition Shortage and ELR Loss/Gain Determination*

†*9.621 Scenario Commencement*



9.601 *CONCLUSION OF MELEE:* First, each unit currently on a Climb marker must be placed in either the Location it was attempting to reach or the Location it left when it began to climb, at the owner's choice. If the Location the unit is placed in contains an enemy unit(s), mark them all with a Melee counter. All opposing units in the same Locations are now assumed to be in Melee, and must undergo an (unlimited) number of Melee rounds until no more CC attacks can be made. Such units are free to perform any/all normal CCPh activities associated with Melee (i.e., attack, Capture, Withdrawal, etc.). Consider the side that moved first in that scenario to be the ATTACKER. Following the conclusion of the first round of RePh Melee in a Location, each still-concealed unit therein is revealed, each pinned unit therein becomes unpinned, each CX counter is removed, each vehicle currently in Motion therein has its Motion counter removed, and each Stun counter on a vehicle therein is flipped over to its "+ 1" side (the vehicle is still subject to Recall, if applicable, and may be marked as CE if so desired).

9.6011 *ORDER OF RESOLUTION:* Resolve all Melees in alphanumeric sequence (e.g., A1, then B16, then B17, then C19, etc.).

9.602 *MARKER REMOVAL:* All hidden/Cloaked units, Entrenchments and Equipment are placed on-map in their present Location [EXC: still-hidden Observers, Emplaced Guns, and Fortifications other than Entrenchments, need not be revealed provided they set up in their current Location for the next CG scenario; such units/Fortifications may set up HIP for the next CG Scenario at no cost in FPP]. All markers/counters listed below are removed from the map at this time (Right of Inspection does not apply to revealed stacks):

a. SR and FFE counters

b. SMOKE counters, Sniper counters

c. Acquired counters

d. DM, Disrupted, Fanatic, Berserk, Wall Advantage, HD markers, Dummy Stacks, Dummy Cloaking Counters, and "?"

e. CX, Motion, CE, BU, and Labor markers

9.603 *RALLY AND UNLOADING:* All currently broken units of both sides automatically rally, even if Disrupted. No DR are made. All Passenger/Rider Personnel and Equipment are then unloaded/unhooked into their vehicle's Location (a unit unloading into an A-P minefield is not immediately attacked, but 9.6042 will apply). When step 9.603 has been completed, CG Scenario End has occurred. Each player should note the final CVP tally from the scenario just completed (and should also note those CVP gained/lost during the RePh) for CG Victory Determination (9.51) and ELR Loss/Gain (9.6202)

9.604 ENCIRCLEMENT, MINEFIELDS, BOG, AND SHOCK

9.6041 *ENCIRCLEMENT:* Each Encircled unit [EXC: prisoner] must take a separate 1TC (Leadership DRM may apply if present and at owner's choice). If it passes its 1TC, it remains in the present Location (Encircled markers are not removed until 9.606). Failing the 1TC results in the unit's immediate Elimination [EXC: Encircled Vulnerable PRC of an immobile vehicle are Eliminated, leaving the vehicle Abandoned]. CVP are awarded normally. British units failing this TC are not placed in the Walking Wounded Box. Each prisoner that an Eliminated Encircled unit was Guarding must, if possible, be claimed by another unit in that Location friendly to the Eliminated unit. If the prisoner is not claimed, it is considered Rearmed (A20.551) and may automatically possess any Equipment dropped by its Eliminated Guard. Otherwise, any Equipment that an Eliminated Encircled unit possessed is left in the Location unpossessed.



9.6042 *MINEFIELDS:* Each Mobile vehicle (and its Vulnerable Inherent crew, if required; B28.43) in any type of minefield undergoes the appropriate type(s) of mine attack(s), fully resolved in the normal manner, as if it is attempting to exit the minefield Location [EXC: if the Inherent crew of such a vehicle breaks, it is unloaded in Good Order into the minefield's Location]. Each Infantry unit in an A-P minefield hex (including a previously Inherent crew that just unloaded due to a minefield attack) Must take a NTC (Leadership DRM can apply); failure of the TC causes Casualty Reduction. [EXC to both: A unit theoretically able to exit the minefield hex without being attacked by the mines and without having to enter a minefield/enemy-Controlled Location need not take the NTC.] In all cases, each surviving unit must remain in its respective Location in that minefield hex until its Setup Area is determined in 9.605. CVP for eliminated units are awarded normally.

9.6043 *BOG:* Each non-Abandoned, Bogged/Mired vehicle must undergo consecutive Bog Removal attempts (D8.3) until it is either unbogged or immobilized (MP expenditure is immaterial). For a British Jeep(a), or if German Vehicle Note L applies to the vehicle, one squad-equivalent (as explained in the Note) in its Setup Area may be used to claim the -2 (-1 per crew or HS) drm to the colored dr of its Bog Removal DR.

9.6044 *SHOCK/UK:* Each Shocked/UK AFV must undergo consecutive recuperation attempts (C7.42) until either the marker is removed or the AFV is Eliminated. CVP are awarded normally.

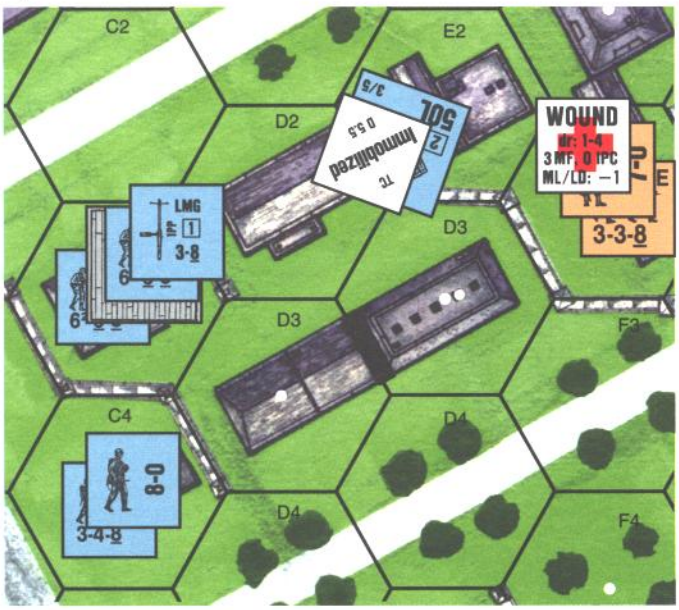
9.605 *SETUP AREA DETERMINATION:*[15] Each side now determines its Setup Area(s) for the next CG Scenario. Setup areas are determined by Control of city blocks. Each side may at any time during/after a CG Scenario place a friendly Location Control marker (supplied in the ABtF counter mix) in a Strategic Location that it currently Controls, especially if that Location's Control might become disputed at some later point. Additionally, during this RePh step (only) Block Control Markers are placed in any convenient area of the map to indicate that a side Controls that Block. Once Control of a Block is gained, by simultaneously Controlling all Strategic Locations within that Block *during this step* of the RePh, a side retains Control until such time as the opposing side has simultaneous Control of all Strategic Locations within the Block during this step of the RePh. Some Blocks may contain no Strategic Locations. These Blocks are never Controlled. However, Strategic Locations can be created during play. In such cases, these Blocks can then be Controlled and are treated as all other Blocks (so long as at least one Strategic Location remains within the Block). A Location Control marker must be removed (or flipped over) if the Controlling side loses Control of that Location. A non-Strategic Location may still be Controlled (as per A26.11–.12), but does not receive a Control marker. A Setup Area may currently contain no units, but can still have friendly units Shifted into it unless otherwise prohibited (9.613). Block Control is determined (and can change) *only* as a result of this step [EXC: Block Control Forfeiture; 9.6051]. The Blockhouse is always a valid Friendly Setup Area for the side that controls it (even if it has been destroyed, but not once its Rubble has been cleared; 5.2–.22).

9.6051 *BLOCK CONTROL FORFEITURE:* If at any point in the RePh armed, non-crew MMC of one side occupy one or more Strategic Locations within a Block while there are no armed, enemy, non-crew MMC within that Block (in any Loca-

tions, Strategic or otherwise), Control of that Block immediately switches to (or remains with) the side occupying the Block. The Block (and all Locations within it) is now considered Controlled by that side. Thus in such a case the requirements of 9.6053–.6054 will be NA. Units within the boundaries of that Block now consider it to be a valid Setup Area.

9.6052 *UNCONTROLLED TERRITORY:* As each side determines its Setup Area(s), there will be portions of the map that are not bounded by either side's setup area. These will primarily be road hexes and those areas not containing any Strategic Locations. No Units may set up in these hexes [EXC: Initial CG Scenario; Vehicles and Emplaced Guns may do so, provided the Location is within 2 hexes of a Friendly Setup Area; The Blockhouse]. Uncontrolled Territory may contain one or more Strategic Locations under certain conditions.

9.6053 *ISOLATED UNIT:* An Isolated unit/Weapon is one in a Location not contained within the boundaries of a Block Controlled by that side. Each Isolated Personnel/Mobile-vehicle unit (and its portaged/possessed/towed Equipment [EXC: non-dm Guns]) at scenario end is Retained into the nearest (along the shortest path of contiguous, Enterable, Uncontrolled Territory hexes) Friendly Setup Area or Eligible Entry Area; unit's owner's choice of Area if equidistant. Each SW/Gun may be freely (un)hooked/Eliminated/Transferred/dismantled. Each Personnel/Mobile-vehicle unit unable to trace such a path is required to attempt Escape. Each immobile vehicle becomes Abandoned, and its crew (if any) is then either Retained (if it can trace such a path) or required to attempt Escape [EXC: If the immobile vehicle is in Uncontrolled Territory, it remains in its current Location and VCA. It may, at the owner's option, be Abandoned (and turned into a (Burnt-out) wreck and may be Scrounged) and the crew is then Retained]. Emplaced guns in Uncontrolled Territory may remain in their current Location provided that Location is ≤ 2 hexes from any hex within a Friendly Setup Area. Non-dm Guns in an Enemy Setup Area, or in Uncontrolled Territory ≥ 3 hexes from a Friendly Setup Area, are left unpossessed in their current Location and the crew is then either Retained or must attempt escape.



EX: Block C is currently under British Control. At the end of the 18N CG Scenario, the German player has managed to take Control of all Locations within this Block with the exception of that occupied by the British 3-3-8 and wounded 7-0 leader in hex F2. Since the German does not Control all Strategic Locations within the Block, the German units are Retained into a Friendly Setup Area and are removed from the Block. The immobilized Pzkpfw IIIL must be Abandoned, but the crew will be Retained. None of these units will be required to Escape since they will be able to trace a path of Uncontrolled Territory hexes to a Friendly Setup (or Entry) Area along the road. The British player retains Control of the Block and regains Control of all Locations within it.

9.6054 *ESCAPE:* Each still-Isolated unit must now attempt Escape. If > one Personnel unit in the same Location wishes to Escape, they may combine into one or more stacks; each stack then makes its own DR on the Escape table. All such stacks must be predesignated prior to making any Escape DR for that Location. Each squad stacked with a Leader may freely Deploy. Prior to its possessor's Escape attempt, each SW/Gun may be dropped or freely (un)hooked/Eliminated/Transferred/dismantled. A non-dm Gun can never Escape [EXC: if hooked up to a mobile vehicle which successfully escapes].

9.60541 *ESCAPE RESULTS:* If a unit survives the Escape attempt, it and all Equipment it took with it are Retained into a Friendly Setup Area or off-map at an Eligible Entry Area—whichever is nearest in a path of contiguous, Enterable, Uncontrolled-Territory/Enemy-Setup-Area hexes (Escapee's choice if two such Areas are equidistant). If a unit is Eliminated (via Replacement/Casualty-Reduction) while escaping, , all Equipment it took with it is Eliminated on a subsequent dr of 4–6; on a dr of 1–3 the Equipment is left in the Eliminated unit's last-occupied Location. CVP for eliminated units are awarded normally.

ESCAPE TABLE

Final DR	Infantry	Mobile Vehicle
≤ 8	Escapes[1]	Escapes
9	Escapes, Replaced[2,3]	Abandoned[4,5]; crew (if any) Escapes
10	Escapes, Casualty Reduced[3]	Eliminated[6]; crew (if any) Escapes
11	Escapes, Replaced[2,3], then Casualty Reduced	Abandoned[5], crew (if any) Eliminated
≥ 12	All units/weapons Eliminated	Eliminated; crew (if any) Eliminated

1 An Original 2 DR results in Escape and Heat of Battle for an eligible unit (A15); use Random Selection to determine the unit(s) affected in a stack [EXC: any result other than Hero-Creation or Battle-Hardening (i.e., Berserk/Surrender) results in the unit(s) Elimination].

2 A crew, or unit which would otherwise become Disrupted, is Eliminated instead.

3 Use Random Selection for a stack.

4 The surviving crew may turn the vehicle into a (Burnt-out) wreck.

5 In its current hex and VCA; the surviving crew may attempt to Scrounge the vehicle/wreck.

6 The surviving crew may attempt to Scrounge the vehicle *prior to* its Elimination.

DRM:

-1	lone, unwounded SMC
-1	Vehicle other than a CT AFV
-1	just completed CG Date was Night (N)
-2	CT AFV
+x	(Armor)Leader/Hero DRM (NA to Leader/Hero escaping alone)
+1	per multiple of two Uncontrolled-Territory/Enemy-Setup-Area hexes required to reach a Friendly Setup Area (FRU)
+1	per HS-equivalent >1 HS escaping with the same DR†
+1	per PP > IPC carried (the unit carrying the most excess PP determines DRM for a stack; a Leader may combine with an MMC to increase that MMC's IPC provided the Leader and the MMC escape using the same DR)†
+1	unarmed†, wounded†, Walking Wounded†, captured vehicle (each occurance)
+2	Encircled†
†	NA to vehicle Escape attempt

9.6055 *MARKING THE MAP:* Included in the *ABtF* module is a reduced-size map. Each side should now record its Setup Area(s) on a new photocopy of the reduced-size map. Both sides outline (using different color pens, but on the same photocopy) each Block Controlled by them, removing the Retained units contained in each (taking care to not mix units from different Setup Areas). Once all Blocks have been indicated, mark all Uncontrolled Territory hexes using another color (suggestion: a yellow "highlighter"). Once all Setup Areas have been correctly marked, they remain thus until the start of the next CG scenario.

9.606 *ENCIRCLED-MARKER REMOVAL:* All Encircled markers are now removed.

9.607 EQUIPMENT POSSESSION AND HIDDEN FORTIFICATIONS

9.6071 *IN SETUP AREA:* Each piece of Equipment in a Setup Area is Retained (as Captured, if applicable) therein by the side Controlling that Setup Area. At its (new) owner's option, each such piece may be Eliminated by any Personnel (even an Abandoning crew) Retained in that Setup Area, and each such vehicle may be Abandoned, etc. exactly as per 9.6053. Each unpossessed/Abandoned Equipment piece in a Setup Area may remain unpossessed/Abandoned (in which case it retains its present CA), or may be automatically repossessed/remanned and operated (as per A21.11–.13, A21.21–22, D5.42 or D6.631) by Personnel Retained in that Setup Area. Each immobile vehicle must remain in its present Location and VCA until such time as it becomes Mobile.

9.6072 *NOT IN SETUP AREA:* All unpossessed/Abandoned Equipment in Uncontrolled Territory must remain in its present Location (and vehicle/Gun CA) until Eliminated or repossessed/remanned in (or after; 9.6071) a subsequent scenario. Each immobile vehicle must remain in its present Location and VCA until such time as it becomes Mobile.

9.6073 *HIDDEN FORTIFICATIONS:* Each still-hidden Fortification within a Setup Area of the purchaser's opponent is placed on-map. Each such minefield is marked by placing a Minefield counter to reveal its presence but not its strength/type. Each on-map Fortification (i.e., from previous CG Scenarios) is Controlled by the side (if any) Controlling its Location.

9.608 *PRISONERS:* Each prisoner unit is now removed from play. No additional CVP are awarded. Each unarmed unit not currently assigned to a Guard is Rearmed (A20.551) and Retained into any Friendly Setup Area (no Escape DR is necessary).

9.609 *EXTINGUISHING FLAMES AND BLAZES:* Each building/rubble Location currently marked with a Flame/Blaze counter is considered fully consumed by the fire. Players must remove each Flame/Blaze counter and make the appropriate terrain alterations when performing the following sub-steps (9.6091–.6095):



9.6091 *BURNING WRECK:* Each Burning Wreck has its Blaze marker removed [EXC: if that wreck is in Rubble or IN (not by-passing) a building/woods obstacle, move the Blaze marker to the building/rubble/ woods so that it is now a terrain Blaze and mark it with a Pin counter to show that the Location begins the next CG Date with this terrain Blaze in place]. Replace the wreck with a Burnt-out Wreck.

9.6092 *WOODEN RUBBLE, ORCHARD, WOODS:* Remove the Flame/Blaze (and rubble if applicable), and place a shellhole counter in the hex. All other previous terrain in the hex is eliminated (each vehicle/wreck in the hex becomes a Burnt-out Wreck).

9.6093 *STONE RUBBLE:* Remove the Flame/Blaze marker. The stone rubble still exists (each vehicle/wreck in that Location becomes/remains a Burnt-out Wreck), and the Location may catch Fire again in a later scenario.

9.6094 *BUILDING:* Place the correct rubble counter at ground-level in each building hex that has at least one Flame/Blaze in any of its Locations, removing each Flame/Blaze marker. Any Cellar Location in the hex no longer exists. Such rubble may catch Fire again in a later scenario.

9.6095 *ELIMINATIONS:* All Fortifications/Equipment in what were (as per 9.6092–.6094) building/rubble Flame/Blaze Locations (including all building Locations just rubbled as per 9.6094) are Eliminated. All (Burnt-out) wrecks in buildings just rubbled as per 9.6094 are Eliminated.

WOUNDED LEADER TABLE

Final dr	Result
≤ 1	Retained unwounded
2–4	Retained wounded
≥ 5	Eliminated

drm:

-1 British -1 Heroic

9.610 WOUNDED LEADERS AND WALKING WOUNDED MMC

9.6101 *WOUNDED LEADERS:* Each side makes a dr on the following table for each currently wounded Retained leader:

9.6102 *WALKING WOUNDED MMC:* The British player now determines how many (if any) Walking Wounded MMC are recovered as per CG SSR 19. These MMC are placed in any Friendly Setup Area(s).

9.611 RECOMBINING AND BATTLE HARDENING

9.6111 *RECOMBINING:* All Retained same-class and—for Commandos and Engineers—same type HS with identical Strength Factors (and Walking Wounded status) within the same Setup/Entry Area must now recombine (A1.32) so that no more than one of each HS type is retained in that Area [EXC: each side may retain one HS per SW MTR/PSK/PIAT Retained even if that SW is currently malfunctioned].

9.6112 *HEROS & MMC:* On each side, each Retained hero [EXC: Leader; 9.6113] is Eliminated; however, each such Elimination enables that side to Battle Harden one non-crew MMC of the owner's choice within the same Setup/Entry Area as that hero [EXC: if no MMC are available to Battle Harden the Hero is Retained in that Setup/Entry Area]. Elite MMC that Battle Harden become Fanatic (but only for the duration of the next CG Scenario). No MMC may Battle Harden > once per RePh.

9.6113 *LEADERS:* On each side, each Retained *heroic* Leader Battle Hardens and loses his heroic status [EXC: a heroic 10-3 loses his heroic status with no additional effect].

9.612 NEW CG DATE AND SAN ADJUSTMENT

9.6121 *NEW CG DATE:* Each passage of this RePh step represents the start of a new CG Date.

9.6122 *SAN ADJUSTMENT:* Each side must determine if the SAN of their side must be reduced for the current CG Scenario. A side whose SAN is currently < 2 has it automatically raised to 2 (no CPP expenditure is necessary).

9.61221 *BRITISH SAN:* If the British SAN is ≥ 4, a SAN adjustment dr must be made with a +drm equal to the current British SAN minus four. A Final dr ≥ 4 immediately reduces the British SAN by two.

9.61222 *GERMAN SAN:* If the German SAN is ≥ 5, a SAN adjustment dr must be made with a +drm equal to the current German SAN minus five. A Final dr ≥ 4 immediately reduces the German SAN by two.

9.613 *SHIFT:* A Personnel/Mobile-vehicle unit (or group of such) Retained in a Setup Area may attempt to Shift to another Friendly Setup Area (or—if German—to an Eligible Entry Area). A unit/group that wishes to Shift from a Setup Area must be able to trace a path (of any length) of contiguous Enterable (by all units of the Shifting group), Uncontrolled-Territory/Friendly-Setup-Area/Eligible-Entry-Area hexes from any friendly-Controlled hex of that Setup Area to any hex of the Area to which it is attempting to Shift. A unit/group may not Shift *from* an Entry Area. Each non-WW MMC may portage ≤ five PP, WW MMC may portage ≤ 3 PP, and each SMC may portage ≤ two PP [EXC: a wounded SMC can portage nothing]. Prior to its possessor's Shift (attempt), each SW/Gun may be dropped or freely (un)hooked/Eliminated/Transferred/dismantled. A non-dm Gun can not be Shifted [EXC: if hooked up to a mobile vehicle which successsfully Shifts]. For each Leader attempting to shift, 3 squads may automatically deploy. Make a separate Secret DR on the following table for each unit/group attempting to Shift. Only one Shift attempt may be made per unit/group per CG Date, and all units attempting to Shift from the same, and to the same new, Entry or Setup Area must do so as a single group. A German unit/group that Shifts to an Eligible Entry Area may subsequently enter play at that Entry Area.

SHIFT TABLE

Final DR	Result
≤ 8	Successful Shift
9–10	Failed attempt[1]
11	Successful Shift, Caualty Reduction[2]
≥ 12	Failed attempt, all units/Weapons Eliminated[3]

1 Unit/group cannot Shift (the orders were not received or could not be carried out). Unit(s) may not attempt to Shift again until the next RePh, and must remain in its current Friendly Setup Area, though it may participate normally in the next CG Scenario.

2 Each Personnel unit suffers Casualty Reduction on a subsequent dr ≥ 4. Each vehicle is Eliminated on a subsequent dr ≥ 4; if Eliminated, make a CS DR for its Inherent crew (Casualty Reduction for surviving crews is NA) and remove the vehicle from play (no wreck is placed). Scrounging is NA. Roll separately for each unit. Equipment which becomes unpossessed as a result of Casualty Reduction of its possessor is Eliminated.

3 Enemy units detect the attempt and set up an ambush. Crew Survival and wreck placement for eliminated vehicles is NA.

drm:

-1 Previous CG Date was Idle (British only)

-2 British

+1 Per multiple of two Uncontrolled Territory hexes along the path between the current Setup/Entry Area and the desired Area (FRD)

9.6131 *VACATED SETUP AREA:* If the last unit in a Friendly Setup Area is Eliminated or successfully Shifts elsewhere, each Location of that Setup Area remains Controlled by the last Controlling (i.e., by the vacating) side.

9.614 EQUIPMENT REPAIR AND REPLENISHMENT

9.6141 *VEHICLES:* Each side performs the applicable step(s) below for each friendly vehicle. CVP for Eliminated units are awarded normally.

a) ABANDONED: Each Abandoned vehicle in a Friendly-Setup/Eligible-Entry Area may remain Abandoned, or may be remanned and operated (as per A21.22 or D5.42/D6.631) by Personnel Retained within the same Setup Area. Abandoned vehicles in Uncontrolled Territory (including Front Line road hexes) remain Abandoned and may be captured (and remanned) only during play.

b) IMMOBILIZATION REPAIR: Each non-captured, non-Abandoned, immobilized vehicle must make a dr on the following table to determine if the immobilization is repaired:

IMMOBILIZATION REPAIR TABLE

Final dr	Result
1-2	Vehicle becomes mobile*
≥ 3	No effect

* and is Retained in its current (or nearest) Friendly Setup Area

drm:

+1 Only Non-Qualified Use (A21.13) possible
+1 Vehicle is in a Front Line Location/Uncontrolled Territory
+x Armor Leader

c) AFV RECALL: Each Mobile, Retained AFV under Recall is removed from play. CVP for Recalled AFV which ended the CG Scenario on map are awarded normally. No CVP are awarded for Recalled AFV which exited the map during play.

d) STUNNED: A side Retaining a vehicle suffering the results of a stun (small stun; D5.34) must make a dr on the following table to determine if the vehicle recovers from the stun result:

VEHICLE STUN RECOVERY TABLE

Final dr	Result
1 - 2	Recovers; remove stun
3 - 5	Retain stun
6	Eliminated†

† Full CVP awarded; wreck placement and Crew Surival are NA

9.6142 *WEAPON REPAIR:* Each side now makes a separate dr on the table below for each malfunctioned, non-captured, Retained weapon in each Friendly Setup/Entry Area that contains Personnel (or, for a vehicular Weapon, an Inherent crew in that vehicle):

WEAPON REPAIR TABLE

Final dr	Result
≤ 1	Repaired
≥ 2	Eliminated*

* If vehicular mounted, the Weapon is disabled (and if MA, the vehicle is immediately Recalled; place a RECALL +1 counter on the vehicle, 9.6141c applies (i.e., reperform 9.6141c; the vehicle is assumed to have ended the scenario on-map); if a Gun, the Gun is Eliminated with full CVP awarded.

drm:

-1 vehicular-mounted

-x Weapon Repair Number

-y Armor Leader Leadership Rating (*if* vehicular mounted *and* the Armor Leader begins the next CG Scenario manning this vehicle)

+1 only Non-Qualified Use (A21.12) is possible

EX: A German Panther MA repairs on an original dr of ≤ 3. If the German player had a Retained 9-2 Armor Leader (and that Armor Leader was assigned to that Panther for the upcoming CG Scenario), the MA would repair on any original dr other than 6.



9.61421 *VEHICULAR-MG EXCHANGE:* A disabled, non-captured, German vehicular MG may be automatically repaired (even if disabled in step 9.6142) by Eliminating a friendly SW LMG. In all cases, the MG to be Eliminated must be Retained within the same Setup/Entry Area as the AFV.



9.61422 *ABANDONING, SCROUNGING & REMOVAL:* At the Controlling player's option, any non-Recalled vehicle in each Friendly Setup Area may be Abandoned and/or turned into a (Burnt-out) wreck. Likewise, he may attempt to Scrounge any Abandoned-vehicle/non-Burnt-out-Wreck in each Friendly Setup Area. [EXC to all: Such actions are NA unless one Personnel unit (even an Abandoning crew) is Retained in that Setup Area.]

9.6143 *CAPTURED EQUIPMENT:* The German player (only) now makes a separate dr for each of his functioning, captured, Retained Weapons in each Friendly Setup/Entry Area that contains Personnel; if ≥ 4 it is Eliminated (disabled if vehicular). Each already-malfunctioned captured Weapon Retained by either side is Eliminated (disabled if vehicular). MA disabled by either of these means does not cause Recall. At its captor's option, a captured vehicle may remain in play if it has any functioning Weapon (even if MA is disabled); otherwise it is replaced with a Burnt-out Wreck. No CVP are awarded for Eliminated Weapons.

9.6144 *SPECIAL AMMO:* Each non-captured Weapon which has some form of depleted ammunition type may make a dr on the following table for each type of special ammunition which is depleted in order to attempt to resupply that type of special ammunition for that Weapon:

SPECIAL AMMO RESTORATION TABLE

Final dr	Result
≤ 3	Restore special ammunition type
≥ 4	Ammo remains depleted

drm:

+x current level of Ammunition Shortage (SSR CG 17) (British only)

-1 German

9.615 *OB-GIVEN REINFORCEMENTS:* During the RePh, it is possible that one/both sides will receive OB-given Reinforcements. These units may enter/setup as specified below and are in addition to the CG (Date) Maximums listed in the RG Charts. Strength, Leaders, and SW-Allotment are determined normally. See RG Chart notes.

9.6152 REINFORCEMENT SCHEDULE

CG Date	British	German
18AM	I1[1], I2[1], SAN +2[4]	20 FPP[2], SAN -1[5]
18PM	G1[1,2], A1[1], SAN -1[5]	SAN +2[4]
19AM		I1[3], I2[3]
20AM		SAN +1[4]

1 Enters on/after Turn 1 from any British Entry Area
2 Available for on-map setup
3 Enters on/after Turn 1 from any German Entry Area
4 SAN 7 maximum (effective at start of scenario)
5 SAN 2 minimum (effective at start of scenario)

9.6151 *REINFORCEMENT ENTRY AREAS:* Each Reinforcement unit listed in 9.6152 will be assigned an Eligible Entry Area or will be specified for on-map setup. The reinforcements entering the map this CG Date must enter/setup as listed. All/some/none may enter on any turn but those failing to enter/setup during the next non-Idle CG Scenario are Eliminated. Normal CVP are awarded for such units. These reinforcements are in addition to those listed in the RG Charts and never count against the CG Date or CG Maximums.

9.616 *CPP REPLENISHMENT:* CPP are replenished according to the following formula: the CPP Base # (9.6161) plus CG CPP Variable Arrival Points (9.6162) equals the final amount of CPP replenished.

9.6161 *CPP BASE NUMBER:* The CPP Base #s for the current CG Date is indicated in the CPP Base Number Chart.

9.6162 *CG CPP VARIABLE ARRIVAL POINTS:* Both players make a secret DR and add the DR to the CPP Base # to determine the total CPP received for the current CG Date.

CPP BASE NUMBER CHART

CG DATE	BRITISH	GERMAN	CAMPAIGN EXHAUSTION DRM
17N	–	–	0
18AM	20	15	0
18PM	25	15	0
18EVE	15	20	+1
18N	5	20	+1
19AM	5	25	+1
19PM	0	25	+1
19EVE	0	30	+2
19N	0	30	+2
20AM	0	25	+2
20PM	0	20	+2
20EVE	0	20	+3
20N	0	10	+3
21AM	0	10	+3
21PM	0	10	+3
21EVE	0	10	+4

9.617 *PURCHASING REINFORCEMENT GROUPS:* Both players now secretly allot CPP for the purchase of RG. All CPP expended are subtracted from the current CPP total. CPP not spent are divided by two (FRU) and recorded on the CG Roster in the "Left" column. The CPP expended, those remaining, and the RG(s) purchased may all be kept secret. The players consult their RG chart for the different types of RG historically available, the CPP cost of each, the number of each that may be purchased during the course of the CG, and any applicable notes. As each RG is selected, record its ID (and the CPP expended to purchase it) in the "RG Purchased" column on the line for the current CG Date on the CG Roster. After all the RG are selected, write the total CPP expended in the "Spent" column of the CG Roster for the current CG Date; then write the number of CPP remaining (after the above modification), even if zero, in the "Left" column for the current CG Date. These CPP may be used to purchase further RG in step 9.617 of any subsequent RePh.

The RG charts contain the following information:

9.6171 *ID:* Provides an alphanumeric identification for each RG. .

9.6172 *GROUP TYPE:* Lists the name of the RG. This name and its ID are secretly recorded on the RG Purchase Record (9.6178). he British player should secretly record the ID of Commando/Engineer MMC.[16]

9.6173 *CPP COST:* Lists the CPP cost of the RG (regardless of its later-determined Strength). This is the number of CPP that must be subtracted from the current CPP total in order to receive that RG.

9.6174 *UNITS REC'D FULL/DEPL:* Lists the type(s) and quantity of units that each RG contains.

9.6175 *CG DATE MAX:* Lists the maximum number of RG of this type that may be purchased per CG Date (note that these limits are per CG Date and not calendar date).

9.6176 *CG MAXIMUM:* Lists the maximum number of RG of this type that may be purchased during the course of the CG. The players must keep a written record (using the 9.6178 RG Purchase Record) of each RG purchased during the CG in order to know if additional RG of that type are still available for purchase. RG listed as reinforcements during any CG Scenario never count against this maximum.

9.6177 *NOTES:* Special restrictions or comments about the RG.

9.6178 *RG PURCHASE RECORD:* After all RG for the current CG Date have been selected and CPP expended for them, the RG Purchase Record must be updated. One line of this sheet must be filled out for each RG purchased in order to keep track of the number purchased thus far in the CG. If preparing for a CG Initial Scenario, one line is also filled out for each RG given in the Initial Scenario OB (but these latter do not apply towards RG purchase limits). The following listing explains how each column of the RG Purchase Record is used.

CG Date: The CG Date the RG is purchased (e.g., 18PM).

RG ID: The RG's alphanumeric ID and KG from which it was purchased (German Only) (e.g., I1(K) for a German SS Infantry Platoon from KG Knaust).

Group Type: The RG's name (e.g., Para Pltn).

#P (Number Purchased): The total number of friendly RG of this Group Type purchased thus far during the CG.

#R (Number Remaining): The number of this RG Group Type still available for subsequent purchase in the CG. This number is derived by subtracting the number in that RG's #P column from the number listed in the "Maximum" column (for that RG for that CG) in the RG Chart.

Str: The RG's strength, as determined in RePh step 9.6181. Record "F"' for a Full, "D" for a Depleted, RG.

 # Units: The number of units received in that RG of the Unit Type listed in the respective RG Chart (e.g., "3' for a Full Strength Commando Pltn), and the unit type.

SW Received: As each SW for that RG is determined (RePh step 9.6182), record the number and type of each Weapon received.

Leader: As each eligible RG's (Armor)Leader(s) is determined (RePh step 9.6183) record his A10.7/D3.4 Strength Factor.

BRITISH REINFORCEMENT GROUP CHART

RG ID	Group Type	CPP Cost	Units Rec'd	Full Depl	CG Date Max	CG I Max	CG II Max	CG III Max	Notes
I1	Para Pltn	4	6-4-8	4/3	4	9	0	9	d, e, l, w, x
I2	Glider Pltn	3	4-5-8	4/3	2	4	0	4	d, e, l, w, x
I3	Commando Pltn	5	6-4-8	3/2	2	7	0	7	a, d, e, l, w, x
I4	Engineer Pltn	6	6-4-8	3/2	2	3	0	3	b, d, e, l, w, x
I5	MG Sect	4	HMG x1, MMG x2	–	1	3	0	3	c, e, x
A1	Carrier Sect	3	Carrier A x3	–	1	2	0	2	e, x
G1	Mortar Sect	4	OML 3" Mtr x3	–	1	1	2	3	c, o, z
G2	AT Sect	6	OQF 6 pdr AT x3	–	1	1	1	2	c, o, z
O1	Lt Arty	3	80+mm OBA	–	1	5	5	9	m, o, r, z
M1	Fortifications	1	40 FPP	–	5	17	15	30	f, o, z
M2	Sniper	1	SAN +1	–	1	4	6	10	z

BRITISH NOTES

a	Commandos (H1.24) and Sappers (H1.23)
b	Assault Engineers (H1.22) and Sappers (H1.23)
c	Each Weapon is accompanied by a 2-2-8 Infantry crew
d	Check for Depletion (9.6181)
e	All purchased (or OB-Given; 9.615) RGs must enter from a Red Entry Area [EXC: On map setup]. Carrier HSs are 2-2-8 Infantry Crews.
f	Purchase specific fortifications per 9.619
l	Determine Leaders per 9.6183
m	Scarce Ammo. HE Only.
o	Must set up on map in any Friendly Setup Area on CG Date of purchase
r	Each Module is accompanied by a radio which must be possessed by a SMC in any Friendly Setup/Entry Area on CG Date of purchase
w	Determine SW Allotment per 9.6182
x	May not be purchased after 18EVE
z	May not be purchased prior to 18PM

GERMAN REINFORCEMENT GROUP CHARTS

KG KNAUST

RG ID	Group Type	CPP Cost	Units Rec'd	Full Depl	CG Date Max	CG I Max	CG II Max	CG III Max	Notes
I1	SS Rfl Pltn	5	6-5-8	3/2	3	3	3	6	d, l, w
I2	SS Eng Pltn	7	8-3-8	3/2	1	0	1	1	a, d, l, w
I4	SS PG Pltn	4	6-5-8	3	1	1	1	1	l, v
I5	HW Pltn	5	HMG x1, MMG x2	–	2	1	2	2	c, o
I6	SS Recon Pltn	3	3-4-8	3	1	1	1	1	l, v
I7	SS PG HW Sect	4	3-4-8	2	1	0	1	1	v
A1	Lt Tank Pltn	5	PzKpfw IIIL x3	–	1	1	1	1	l
A2	Med Tank Pltn	6	See 9.6184	–	2	0	2	3	l
A3	Hvy Tank Pltn	7	See 9.6184	–	2	1	2	2	l
A4	SPG Pltn	5	See 9.6184	–	2	1	2	2	l
T1	Transport	3	Buessing-NAG x3	–	1	1	1	1	–
G1	FlaK Btty	4	8.8cm FlaK 18 x2	–	1	0	1	1	c, o
G2	Art Btty	4	15cm sIG33 x1 10.5cm leFH 18 x1 8cm GrW34 x1	–	1	1	2	2	c, o

KG BRINKMANN

RG ID	Group Type	CPP Cost	Units Rec'd	Full Depl	CG Date Max	CG I Max	CG II Max	CG III Max	Notes
I1	SS Rfl Pltn	5	6-5-8	3/2	3	4	7	9	d, l, w
I2	SS Eng Pltn	7	8-3-8	3/2	1	1	2	3	a, d, l, w
I3	VG Pltn	3	4-4-7	3/2	3	3	1	3	d, l, w
I5	HW Pltn	5	HMG x1, MMG x2	–	2	1	2	2	c, o
A2	Med Tank Pltn	6	See 9.6184	–	2	1	1	2	l
A3	Hvy Tank Pltn	7	See 9.6184	–	2	1	3	4	l
A4	SPG Pltn	5	See 9.6184	–	2	1	2	2	l
T1	Transport	3	Buessing-NAG x3	–	1	1	1	1	–
G1	FlaK Btty	4	8.8cm FlaK 18 x2	–	1	0	1	1	c, o
G2	Art Btty	4	15cm sIG33 x1 10.5cm leFH 18 x1 8cm GrW34 x1	–	1	1	2	2	c, o
G3	AT Btty	4	7.5cm PaK40 x2 5cm PaK38 x1	–	1	1	0	1	c, o

KG HARDER

RG ID	Group Type	CPP Cost	Units Rec'd	Full Depl	CG Date Max	CG I Max	CG II Max	CG III Max	Notes
I1	SS Rfl Pltn	5	6-5-8	3/2	3	2	4	5	d, l, w
I3	VG Pltn	3	4-4-7	3/2	1	1	0	1	d, l, w
I4	SS PG Pltn	4	6-5-8	3	1	1	1	1	l, v
I5	HW Pltn	5	HMG x1, MMG x2	–	2	0	2	2	c, o
I6	SS Recon Pltn	3	3-4-8	3	2	2	4	4	l, v
I7	SS PG HW Sect	4	3-4-8	2	2	0	2	2	v
A4	SPG Pltn	5	See 9.6184	–	2	1	2	2	l
A5	AC Pltn	4	PSW 232 x1 PSW 222(L) x2	– –	1	1	1	2	l
A6	FlaK HT Pltn	4	See 9.6184	–	2	1	3	4	–

KG GRAEBNER

RG ID	Group Type	CPP Cost	Units Rec'd	Full Depl	CG Date Max	CG I Max	CG II Max	CG III Max	Notes
I1	SS Rfl Pltn	5	6-5-8	3/2	2	4	1	4	d, l, w, x
I4	SS PG Pltn	4	6-5-8	3	1	1	0	1	l, v, x
I6	SS Recon Pltn	3	3-4-8	3	2	3	1	3	l, v, x
I7	SS PG HW Sect	4	3-4-8	2	2	2	0	2	v, x
A4	SPG Pltn	4	JgdPzV x1 StuGIIIG(L) x1	–	1	1	1	1	l, x
A5	AC Pltn	4	PSW 234/1 x1 PSW 232 x2	–	1	1	0	1	l, x
A6	FlaK HT Pltn	4	SPW 250/9 x2	–	1	2	1	2	x
T1	Transport	3	Kfz I x2, Kfz 4 x1 Opel Blitz x2	–	1	1	1	1	x

GENERAL RGs

RG ID	Group Type	CPP Cost	Units Rec'd	Full Depl	CG Date Max	CG I Max	CG II Max	CG III Max	Notes
O1	Bn Mortars	2	80+mm Bn Mtr OBA	–	1	3	7	10	m, p, q, r, s, x
O2	Hvy Mortars	3	120+mm OBA	–	1	1	5	5	m, p, q, r, s, x
O3	Med Arty	4	100+mm OBA	–	1	1	5	5	m, p, q, r, s, y
O4	Hvy Arty I	5	150+mm OBA	–	1	1	3	5	h, m, p, q, r, y
O5	Hvy Arty II	3	120+mm OBA	–	1	1	7	7	h, m, y, z
M1	Fortifications	1	20 FPP	–	3	3	10	10	f, o, x
M2	Sniper	1	SAN +1	–	1	4	7	10	–
M3	Fanaticism	5	All MMC Fanatic	–	1	1	2	3	t, y

GERMAN NOTES

a Assault Engineers (H1.22) and Sappers (H1.23)

c Each Weapon is accompanied by a 2-2-8 Infantry crew

d Check for Depletion (9.6181). The 4-4-7s in RG I3 are non-SS.

f Purchase specific fortifications per 9.619

h HE only

l Determine (Armor) Leaders per 9.6183

m Determine OBA Ammunition as follows:

dr	Result	drm: +1 Heavy Arty
1	Scarce	
2-5	Normal	
6+	Plentiful	

o Available for on map setup on the CG Date of purchase

p May purchase ≤ 2 Pre-registered hexes per module at a cost of 1 CPP per module per hex. Barrage is NA. Pre-Registered hexes may not be purchased for Retained (or Initial Scenario) OBA modules. See SSR CG10.

q May be directed by an Offboard Observer (C1.63) at an increased cost of 1 CPP per module. The specific hex is recorded prior to setup and may be selected from any of the following criteria as applicable [17]

CG Date	Level	Edge
Any	2	North or East
18Eve - 19N	4	West
20PM - 21Eve	4	West

Only one Observer may be chosen for any particular map edge per CG Date. Any Observer selected for the west edge must be used on the CG Date of purchase or be Eliminated. In such a case, the module (if Retained) receives a radio as per note **r** for the following CG Date. Offboard Observers may not be purchased for Retained (or Initial Scenario OB) OBA modules.

r For each module [EXC: Offboard Observer], the player may freely select either a radio or a field phone (see SSR CG6) which must set up possessed by a SMC in any Friendly Setup Area or enter possessed by a SMC via any Eligible Entry Area.

s May fire HE and Smoke

t All Retained or just-Purchased MMC are considered Fanatic (A10.8) for the duration of the next non-Idle CG Date (only)

v Receives AFV as indicated

ID	VEHICLES RECEIVED	
I4	SPW 251/1 x3	
I6	SPW 250/10 x1, SPW 250/1 x3	
I7	SPW 250/sMG x2, SPW250/7 x1	(No additional HSs accompany the SPW 250/sMG)

w Determine SW Allotment per 9.6182

x May not be purchased prior to 18AM

y May not be purchased prior to 19AM

z Directed by an Offboard Observer at Level 0 (at no additional cost in CPP) in any hex along the south edge of the playing area (recorded prior to British setup)[20]

9.618 RG STRENGTH, WEAPONS, LEADERS and COMPOSITION

9.6181 *RG STRENGTH:* For each RG eligible for Depletion that was just purchased (as well as for each such RG received in an Initial-Scenario or during a RePh without purchase), make one secret DR on the RG Strength Table to determine whether it is received at Full or Depleted Strength. A Full Strength RG receives the number of specified units to the left of the "/", a Depleted RG receives the number of specified units to the right of the "/".

RG STRENGTH TABLE

FINAL DR	RESULT	DRM	
≤ 9	Full	-2	British
≥ 10	Depleted	+1	German VG Pltn
		+x/2	Campaign Exhaustion DRM (FRD)

9.6182 *SUPPORT WEAPON ALLOTMENT:* Determine the number of SW received by each Infantry-type RG listed on the appropriate "Infantry-Type SW Chart." A Full Strength RG automatically receives all SW indicated. A Depleted RG must make a secret dr ≤ the number listed in parentheses for each indicated SW in order to receive it. Record each SW received in its appropriate column on the RG Purchase Record on that RG's line. Each SW must set-up/enter with a unit of its RG.

BRITISH INFANTRY-TYPE SW CHART

RG	LMG	PIAT	FT	DC	Lt. Mtr [a]
I1	1(5)	1(3)			
I2	1(5)				1(3)
I3	1(5)	1(3)		1(3)	
I4	1(5)		1(2)	2(3)	

a The light mortars are standard (i.e., non-airborne) versions of the OML 2-in Mortar

GERMAN INFANTRY-TYPE SW CHART

RG	LMG	PSK/Lt. Mtr	FT	DC
I1	1(3)	* (2)		
I2			1(2)	2(3)
I3	1(1)			

* Make a secret dr; 1–2 RG receives a Lt. Mtr, 3–6 RG receives a Psk

EX: The German player purchases 2 SS Rifle Pltns (one depleted) and a full strength Volksgrenadier Pltn. The full strength SS Rifle Pltn receives a LMG and either a Lt. Mortar (with a subsequent dr of 1–2) or a PSK (subsequent dr of 3–6). The Volksgrenadier Pltn receives one LMG. The depleted SS Rifle Pltn makes a dr to determine which SW (PSK or Lt Mtr) is available. Assume a 4 was rolled (making a PSK available). He then makes a dr for each possible SW. The LMG will be received if its dr is ≤ 3 while the PSK will be received if its dr is ≤ 2.

9.6183 *LEADER ALLOTMENT:* For each indicated purchased/OB-Given "I" or "A" type RG, make one secret DR on the appropriate column of the following Leader Table to determine the type of Leader received with that RG. Each newly-received Leader must setup/enter with a unit of his respective RG.

LEADER TABLE

Final DR	British	German	(Armor)
< 2	10-3	10-2	(10-2)
2	10-2	10-2	(9-2)
3	9-2	9-2	(9-1)
4	9-2	9-1	(9-1)
5	9-1	9-1	(8-1)†
6	9-1	8-1	
7	9-1	8-1	
8	8-1	8-0	
9	8-1	8-0	
10	8-0	7-0	
≥ 11	7-0	6+1	

† If selected for a Hvy Tank Pltn, replace with a 9-1 A.L.

LEADER TABLE DRM

BRITISH		GERMAN	
-1	Commando	-1	SS PG, SS Recon, Med Tank
-2	Engineer	-2	Engineer, Hvy Tank
+1	Glider	+1	SPG, Lt Tank
		+2	VG, AC

9.6184 *GERMAN VEHICLE GROUP COMPOSITION:* For each German A2, A3, A4, or A6 RG purchased [EXC: A4 and A6 RGs available from KG Graebner] make a dr on the appropriate table below to determine the exact composition of the RG.

A4		
dr	Vehicles	
1	StuH 42	x2
2	StuG IIIG(L)	x2
3-5	StuG IIIG(L) StuH 42	x1 x1
6	StuG IIIG(L)	x3

A3		
dr	Vehicles	
1	PzKpfw VIB PzKpfw VIE(L)	x1 x1
2-4	PzKpfw VIE(L)	x2
5	PzKpfw VIE(L) PzKpfw VIE	x1 x1
6	PzKpfw VIE	x2

A6		
dr	Vehicles	
1-2	SPW 250/9 SdKfz 10/4	x2 x1
3-4	SdKfz 7/1 SdKfz 6/2	x1 x2
5	SPW 250/9 SdKfz 6.2 SdKfz 10/4	x1 x1 x1
6	SdKfz 10/4 SdKfz 7/1 SdKfz 6/2	x1 x1 x1

A2		
dr	Vehicles	
1	PzKpfw VG	x2
2-3	PzKpfw IVJ	x2
4-6	PzKpfw VG PzKpfw IVJ	x1 x1

9.619 *PURCHASING FORTIFICATIONS:* Fortifications, which are obtained by spending FPP, may be purchased on each CG Date if the player has the requisite FPP (either given as a reinforcement in the initial CG Scenario or as per 9.615, or purchased). All FPP unspent upon completion of this step are forfeit. As Fortifications are selected, the specific type (and strength, if mines) must be recorded in the "FORTIFICATIONS" area of the CG Roster.

FORTIFICATION PURCHASE TABLE

FORTIFICATION TYPE	FPP	NOTES
Trench	6	–
Foxhole	3/2/1	1, F
A-P minefield factor	3/6	2
A-T Mine factor (British Only)	4	2, 3
Wire (German Only)	10	7
Fortified Location	10	4, F
Breach	5	B, F
HIP	3/2/1/1	5, F
"?"	1	6, F

1 For 3-, 2- and 1-squad capacity respectively.

2 German/British FPP cost respectively. Each side may purchase no more than 12 A-P minefield factors (and, for the British, 2 A-T Mines) per CG Date. The British may not purchase more than 8 A-T Mines during any CG. During setup, the strength of friendly-Controlled, pre-existing minefields may be increased by adding extra A-P/A-T mine factors to them (though only in allowed increments and to allowed maximums). Minefields may not be decreased in this manner. Minefield factors purchased on the above Table may never be exchanged for Boobytrap capability (B28.9). Exchanging A-P minefield factors for A-T Mines (B28.5) is NA.

3 Includes Daisy Chain.

4 Per building Location; tunnels are NA.

5 Squad/HS/crew/SMC cost respectively. No more than 10% (FRU) of a side's Retained/Just-Purchased Infantry squads (plus all SW/SMC set up with them in the same Location) may set up using HIP in a daytime scenario. The 25% allocation for a Scenario Defender at night (E1.2) costs no FPP. AFV HIP is NA. Guns, and their manning crew may set up using HIP per SSR CG5. In all cases, the allowable percentage is calculated separately for each Setup Area.

6 See SSR CG12.

7 HIP NA [EXC: Night CG Scenario]

F Only those Fortifications marked with a "F" may be set up in a Front Line Location [EXC: neither the Blockhouse nor the rubble from its destruction (5.2) is ever considered a Front Line Location for purposes of this note].

9.620 AMMUNITION SHORTAGE AND ELR LOSS/GAIN DETERMINATION.

9.6201 *BRITISH AMMUNITION SHORTAGE DETERMINATION:* Commencing on the 19AM CG Date (and every CG Date thereafter) the British player makes a DR on the following table to determine the Level of ammunition shortage (CG SSR 17) suffered for the current CG Date [EXC: This step is not performed if the previous CG Date was Idle; 9.62132].

AMMUNITION SHORTAGE LEVEL CHANGE

FINAL DR	RESULT
≤ 9	No Change
≥ 10	Shortage increases one Level

DRM:

+x Campaign Exhaustion DRM

+(y-1) Number of British Attack Chits selected during this CG (minimum of 0) (see 9.5, 9.52 SSR 3, 9.62132)

9.6202 *ELR LOSS/GAIN:* Each player makes a DR on the following table to determine the effects (if any) on his side's ELR for the current CG Date.

ELR LOSS/GAIN CHART

FINAL DR	RESULT
≤ 2	ELR +1
3-12	No Change
≥ 13	ELR -1

DRM

-1 Per 30 CVP (FRD) of enemy units Eliminated during the last CG Scenario (including CVP awarded thus far during this RePh)

-3 Per Idle CG Date since the last CG Scenario

+1 Per CG Scenario since the last Idle CG Date

+1 Per Attack Chit selected by that side since the last Idle CG Date

+x Campaign Exhaustion DRM (British Only)

+y/2 Campaign Exhaustion DRM (FRD) (German Only)

+z British Ammunition Shortage Level DRM (British Only)

EX: It is the 21PM CG Date. The British player chose an Attack Chit on 21AM and inflicted 42 CVP on the Germans. There was an idle CG Date on 20N. The British are under Ammunition Shortage Level 2. The British player's DRM total will be +7 (-1 for CVP, +1 for the 21AM CG Scenario, +1 for the Attack Chit used on 21AM, +4 for Campaign Exhaustion, and +2 for British Ammunition Shortage). The German player inflicted 38 CVP and also selected an Attack Chit on 21AM. The German player's DRM will be +3 (-1 for CVP, +1 for the 21AM CG Scenario, +1 for the Attack Chit used on 21AM, and +2 for Campaign Exhaustion).

9.621 SCENARIO COMMENCEMENT

9.6211 *CG SCENARIO VICTORY CONDITIONS:* In *ABtF*, the individual CG Scenarios have no specific Victory Conditions. A player does not "win" or "lose" a CG Scenario. Rather, the CG Scenarios are intended to position the players for the overall CG Victory Conditions.

9.6212 *SUDDEN DEATH VICTORY:* The Germans win any CG at the end of any CG Scenario Game Turn by Controlling all Strategic Locations within Block H (see the Chapter R Divider).

9.6213 *INITIATIVE DETERMINATION:* Each side selects its Initiative for the current CG Date, either to "Attack" or stand "Idle", representing its desired tactical plans.

9.62131 *CHIT LIMITS:* Each CG (9.51 – .53) lists the maximum number of Attack and Idle Chits (9.62132) each side may select during the course of that CG. There is no limit otherwise on selecting Attack/Idle Chits on consecutive CG Dates.

9.62132 *PROCEDURE:* Each side takes its respective Initiative Chit and secretly places it on the playing area, hidden from the opponent's view, with the chit's face-up side displaying the side's Initiative selection (i.e., either an Attack Chit or an Idle Chit) for the next CG Scenario. The counters are then revealed simultaneously and cross-indexed on the following matrix to determine if a new CG Scenario is

INITIATIVE MATRIX

CHITS SELECTED	BRITISH ATTACK	BRITISH IDLE
GERMAN ATTACK	Dual Assault [1]	German Assault [1]
GERMAN IDLE	British Assault [1]	Idle CG Date [2]

1 Scenario generated; consult proper scenario type below for further information

2 No scenario generated for this CG Date; each side repeats RePh steps 9.612–.620

generated and, if so, what type it will be. Both players should note on a side record the chit selected and the total of each type used thus far in the CG for Ammunition Shortage (9.6201) and ELR Loss/Gain (9.6202) purposes.

9.62133 SCENARIO TYPES

a) Dual Attack—Represents a CG Date when both sides have planned offensive action. The German player makes a dr to determine which side sets up first: if ≤ 3 the British does; otherwise the German does. The side moving first (see 9.6215), however, is not determined until after all setup is complete (see also SSR CG 24).

b) German Assault—Represents a planned assault on the British positions. The British player sets up first and the German player moves first (see also SSR CG 24).

c) British Assault—This represents a local counterattack by British units. The German player sets up first and the British player moves first (see also SSR CG 24).

9.6214 *UNIT SETUP:* The side that sets up first (9.62133) in a given CG Scenario now sets up all of its Retained units, Equipment, and new Fortifications, after which the other side does likewise. Each unit/Equipment piece may be set up only in its current Setup Area [EXC: in its current Location and VCA, if an Immobile vehicle; 9.6071]. Emplaced Guns and mobile Vehicles may also set up in Uncontrolled Territory that is ≤ 2 hexes from a Friendly Setup Area (see also SSR CG 5). Record the hex coordinates of new Fortification setup Locations on the CG Roster, in the appropriate line(s) and column(s) under "FORTIFICATIONS". As an exception to A2.9, units may set up overstacked if *every* Location within the Friendly Setup Area currently contains the maximum allowed by normal stacking limits (A5). Following this, the side setting up second does likewise. Units may not set up in enemy occupied Locations.

9.6215 *FIRST MOVE DETERMINATION:*[18] For British or German Assaults, see 9.62133. For Dual Assaults, the German player now makes a dr. On a dr ≤ 4, the German moves first. On a dr ≥ 5, the British moves first.

9.6216 *WEATHER DETERMINATION:* The weather, NVR (if required), EC, and Wind Force (including direction if necessary) are now determined.

9.62161 *WEATHER:* The British player makes a DR and consults the table below to determine the weather for the upcoming CG.

WEATHER TABLE

DR	RESULT	DRM
≤ 2	Mist	-2 Previous CG Scenario was Mist
3–5	Overcast	-1 Previous CG Scenario was Overcast
6–10	Clear	-1 Night Scenario
≥ 11	Clear & Gusty	+1 Previous CG Scenario was Clear & Gusty

9.62162 *NVR:* For all CG Night Scenarios there is no Moon and Scattered Clouds. Determine Base NVR per E1.11.

9.62163 *EC:* The British player makes a dr and consults the following table to determine the EC for the upcoming CG Scenario.

dr	RESULT	drm
≤ 1	Wet	-1 Previous CG Scenario was Wet or Moist
2	Moist	-1 Night Scenario
3–5	Moderate	+1 Previous CG Scenario was Dry
≥ 6	Dry	

9.62164 *WIND FORCE (AND DIRECTION):* The British player makes a dr and consults the following table to determine the wind force for the upcoming CG Scenario.

WIND FORCE TABLE

dr	RESULT	drm
1–3	No Wind	-1 Night Scenario
4–6	Mild Breeze [1]	+2 Weather is Overcast
≥ 7	Heavy Wind [1]	+1 Previous CG Scenario was Clear & Gusty

1 Determine Wind Direction per B26.52

Footnotes

FOOTNOTES:

1. 1. THE ARNHEM BRIDGE: The Arnhem Bridge was a dominating structure. Built circa 1930, it was a major accomplishment in the field of civil engineering. Spanning an elevated distance of over 400 meters and sporting 4 paved lanes as well as a wide sidewalk on both sides of the surface, it was the standard for highway bridges for some time. The entire underside of the bridge was interwoven with steel beams and there were concrete supports nearly 6 feet thick at varied intervals as well. Movement beneath the bridge was possible but difficult, particularly for vehicular traffic. Two separate underpasses (hexes R15 and R21) were available to facilitate vehicles. Paths along the sides of the bridge allowed sheltered travel for pedestrians.

2. 1.4 PEDESTRIAN ACCESS POINTS: There were two concrete enclosed staircases on either side of the bridge just north of the blockhouse. These were used by pedestrians to access the elevated portion of the bridge in order to cross the river. They were nearly entirely enclosed except for access ports allowing sunlight to illuminate the steps and opened into an area on the walk above with benches surrounded by a low wall.

3. 1.22 OT VEHICLE VULNERABILITY ON THE RAMP/BRIDGE: The buildings along the east and west sides of the bridge had been built up and expanded since the bridge's completion. Many of these structures were within 12 feet of the sidewalks on the span itself. British paratroopers were able to actually see into the open topped armored vehicles, allowing them to easily shoot the driver and assistant driver as the vehicles passed. Additionally, the paratroopers were able to throw grenades and gammon bombs into the passenger compartments from their vantage points in the upper floors and on rooftops. These rules attempt to simulate the extreme vulnerability of open-topped vehicles in this confined space.

4. 2. THE RAMP: The Ramp was a manmade structure of earth and concrete gradually rising in height from ground level to the level of the bridge. The slope was gradual but increased as one neared the top of the span (best available data places the grade varying from 0.5% near the base in hex R5 to 3.5% near the center of the span off the south edge of the map). Vision was clear from the peak of the bridge span (near the center of the river) all the way down the ramp to its base. The LOS mechanics of ASL make this difficult to portray. These LOS rules are an effort to simulate the gradual change in elevation from the top of the bridge to its base.

5. 3. FACTORIES: Players familiar with Red Barricades will note a few differences between the Chapter R Factory rules and those presented in Chapter O. The main differences are simply omissions of those circumstances which will not occur in ABtF. These mainly involve roofless factory hexes and their effects on play, particularly where combination roofless and roofed hexes would exist in the same factory. That will not occur in ABtF as the factory hexes will be either rubbled or roofed.

6. 3.332 OB/CG-PURCHASE OF BREACHES: The ability to "buy" breaches represents the use of "mouseholes" by the British troops. These were small openings bored through the walls of neighboring rowhouses to provide limited movement between the structures. These often came as a nasty surprise to the Germans who frequently found themselves in the middle of a British strongpoint where only a small outpost was suspected.

7. 4. CELLARS: Owners of Red Barricades will note two primary differences between the Cellar rules in Chapter O and the ones presented here. The cellars in Arnhem were for the most part simple fruit cellars and/or storage areas. Though they were primarily constructed of wood with some brick and mortar added for support, with the exception of their subterranean nature, they were much less sturdy than their Stalingrad counterparts. Additionally, most of these cellars had standard doorway openings and thus were easily accessible. The decision not to make them automatically fortified simulates the necessity of defenders to secure these accesses from entry. The lower stacking limit takes into account the predominant use of these areas, by both sides, to house the wounded and prisoners.

8. 5. THE BLOCKHOUSE: The blockhouses were pillbox type structures located at each end of the bridge. These were used by the German garrison and security troops to control the flow of traffic across the bridge. A small wooden shed was located behind the northern blockhouse. This was the main ammunition storage for the Arnhem garrison and was destroyed in a terrific explosion when hit by a flamethrower on the night of September 17th. The wooden shed is not depicted here as its effect on play was found to be minimal. When the northern blockhouse was finally destroyed by a combination of PIATs, small arms fire and a flamethrower, the resultant rubble inhibited movement down the bridge, though not to an extreme extent. The British did take the opportunity to hide a few anti-tank mines near the blockhouse using planks and other items of debris to conceal their location.

9. 6. UNIT REPLACEMENT: Much has been made about the elan and spirit of the British 1st Airborne, particularly in Arnhem. The truth of the matter is that only about half of the British troops had any battle experience at all. Those with experience were veterans of Tunisia and Sicily and were definitely no strangers to close quarter fighting. Though they had been fighting in mountain passes and rocky crags, these buildings at Arnhem were little different. This is reflected in game terms by the initial British forces having a morale of 8 and an ELR of 5. The staying power of these troops will dwindle away as the CG progresses, simulating the loss of the combat experienced men throughout the British units. Their German counterparts were a mixed group of veterans, old men and teenagers. Though nearly replenished to about one-half of their D-Day manpower strengths—at least on paper—the 9th and 10th SS Divisions were barely a shadow of their true TO&E. Much of their equipment and veteran cadre had been lost in the retreat from Cambrai. However, a pool of trained replacements was readily available. In many cases a veteran platoon would be broken down with its core distributed to several sections. This formed a section with 2 or 3 veterans surrounded by a balance of inexperienced troops. The result was a highly aggressive squad that was also very fragile. These rules simulate the nature of the forces battling in and around Arnhem. For the British, the troops lose their ability to fight for a number of reasons—wounds, exhaustion, lack of water and ammunition not the least among them. The Germans lose their ability to continue the fight due their rapidly depleting pool of experienced, fit fighting men. The Campaign Exhaustion DRM is an abstraction of these factors as well.

10. 7. WIDE BOULEVARDS AND NARROW STREETS: Arnhem was a maze of narrow streets. The buildings were often so close to the streets that no sidewalks were available (see SSR ABtF 5).

Footnotes

Contrasting that sharply were the areas of wide open paved surfaces surrounding the industrial areas to the east of the bridge and the numerous parks throughout the town. The varied mix of these terrain types provides a fascinating tactical puzzle for attacker and defender alike.

11. CG9 REINFORCEMENTS: Though seemingly harsh at first glance, any reinforcements not entering play when "first available" are assumed to have been put to use elsewhere. Players will quickly find that the nature (and relatively small number) of unused reinforcements will render this effect minimal.

12. CG19 WALKING WOUNDED: The British troops at Arnhem were faced with a difficult position. Unable to evacuate their wounded, the British command reorganized those wounded that still retained some fighting ability into functional combat units. The seriously wounded or incapacitated were stripped of equipment and moved to cellars where they could be monitored.

13. CG21 BRITISH WATER SHORTAGES: The British briefings for Operation Market-Garden included a strict prohibition against using the Lower Rhine as a fresh water source. Chief among the concerns was the threat of dysentery. North Africa and Tunisia had taught tough lessons on the debilitating, long term effects of dysentery and had made the British commanders somewhat overly sensitive. Considering the expected short duration of the operation, it is unclear why the river was not utilized. Nonetheless, the troops in Arnhem did not do so. As a result, severe water shortages occurred during some of the heaviest fighting. Two short rain showers helped alleviate this shortage, but only temporarily. German sources following the battle commented on the curious levels of dehydration suffered by those British captured after the evacuation.

14. CG22 GERMAN ATTACK COORDINATION: The situation on and near the Bridge was confused to say the least. With two separate divisions and a number of unattached Corps assets in the area, the command structure was very cloudy. Second only to the difficulty in locating the British was the problem of coordinating strikes from the separate elements assigned the task of retaking the bridge and opening the roadway to Nijmegen. These rules force the German player to dilute his efforts to help recreate the feel of frustration at not being able to bring his whole force to bear in one fell swoop.

15. 9.605 BLOCK CONTROL: The control of the city blocks in Arnhem was a top priority for both attacker and defender—more so than in nearly any other single battle. The British defenses were designed with control of blocks of terrain in mind (as opposed to controlling single buildings) and the German attacks were likewise targeted at isolating and recapturing one or more city blocks. Past HASL modules have endeavored to provide a RePh process which emphasized localization of forces while still allowing for some movement between scenarios (limited as an abstraction of the time frame between CG Scenarios). These rules are designed to force the players to think (and conduct the battle) in terms of controlling city blocks instead of individual buildings or locations.

16. 9.6172 BRITISH TROOP TYPES: The Elite 6-4-8/3-3-8 counters provided have the "winged parachute" symbol of the 1st Airborne Division in place of the standard MMC class designation. Players may wish to use these counters for normal 6-4-8s/3-3-8s, use the *West of Alamein* 6-4-8/3-3-8 counters with the "E" designation for Commandos, and use the *Pegasus Bridge* 6-4-8/3-3-8 counters with the "Rider-upon-Pegasus" sysmbol for Engineers.

17. GERMAN RG CHART NOTE q OFFBOARD OBSERVERS AND SAN VALUES: There were two primary sources of German off-map fire direction. The first was from direct fire of large caliber artillery from the south bank of the river. Numerous heavy artillery pieces and flak guns were deployed along the south bank. These fired over open sights into the buildings along the bank and later over the resulting rubble to the upper floors beyond. The south edge observers are an abstraction of these guns. Though not indirect fire per se, the prolonged shelling from these guns fits the ASL OBA engine quite nicely. Second, there is a large church located just off the northwest edge of the playing area. This church had a steeple over 300 feet high. From this point, almost any movement within the Arnhem town proper was easily observed. Additionally, this position was an excellent spot for snipers. The availability dates reflect the changes in possession of this key position throughout the battle. The changes in both players' SAN values likewise reflect the control of this position.

18. 9.6215 DUAL ASSAULT INITIATIVE: The German "advantage" of moving first more often than the British in Dual Assaults is not a reflection of any lack of initiative on the part of the British. Rather it represents a higher level of British surveillance and intelligence and a general desire to react to the Germans rather than to be preemptive.

19. SSR ABTF 1 CONCEALMENT: One of the biggest obstacles to the German forces was their inability to pin down the precise locations and numbers of British troops. Using the close proximity of the buildings and cover from the smoke and haze from the burning and rubbled buildings, the British were able to continually frustrate German attempts to locate them until it was often too late. Even at the end of the battle, German estimates of British forces arrayed in and near Arnhem were wildly inaccurate. The conclusions varied by as much as 300% from the actual troop strengths seen. It was only well after the war that official records were updated to reflect reality.

20. SSR ABTF 4 NO QUARTER: The battle of Arnhem was a hard fought affair. Quarter was seldom asked or given. Still, each side took large numbers of prisoners. The majority of these were severely wounded and infirmed. In many cases, soldiers of each side commented on the humane treatment by their captives.

21. SSR ABtF 7 *DUTCH UNDERGROUND:* The British commanders were cautioned against the use of information supplied by the Dutch Underground. The main reasons for this are unclear but seem to be centered around a baseless fear of Nazi collaborators within the ranks of the Dutch Resistance Movement. Little could have been farther from the truth. The Dutch Underground was composed of some of the bravest men and women in Europe and the information and intelligence they had obtained could easily have changed the entire course of the battle. Nonetheless, the British command climate severely hampered their usefulness. The designation of Holland as a "neutral country" in game terms reflects not upon the general posture of the Dutch, but rather serves to limit the amount of useful information that the British player in *ABtF* will gain from the Civilian Interrogation rules.

22. SSR ABTF 13 KINDLING: The Germans quickly realized that the best way to find the British was to set fire to their buildings. The structures in Arnhem were mostly old, wood framed houses with brick and stone interspersed between the frames. The results were very sturdy structures which were also highly susceptible to fires.

23. SSR ABTF 18 WHITE PHOSPHOROUS: The German forces in Arnhem made widespread use of the available white phosphorous ammunition. Though normally prohibited from using WP in ASL terms, the Germans at Arnhem enjoyed an availability which justifies its use here. The tendency of the buildings to catch fire easily from the heat of a WP grenade and/or shell is well chronicled. These rules simulate the availability of WP to the Germans, the susceptibility of the buildings, and the resultant fires.

A BRIDGE TOO FAR CREDITS

DESIGN: Russ Bunten (with Special Thanks to Steve Dethlefsen and Eddie Zeman)

HISTORICAL RESEARCH: Russ Bunten (with Special Thanks to Mike Conklin)

SCENARIO DESIGN: Russ Bunten, Greg Davis, Steve Dethlefsen, Mike Faulkner, Scott Holst, and Eddie Zeman

DEVELOPMENT AND LAYOUT: Multi-Man Publishing

MAP DEVELOPMENT AND ART: Don Petros

BOX COVER ART: David Pentland

PLAYTESTING: Jim Stahler, J.R. Tracy, Kent Henson, Doug Maston, Scott Holst, Scott Jackson, Dave Ewing, Shelly Crawford, Rick Thomas, Dave Reenstra, Leland Tankersley, Mick O'Shea, Jim Serafin, Bob Bendis, Richard Orris, Marty Snow, Zeb Doyle, Jack Barnett, Jeff Thompson, Jack Murphy, Dan Ploszaj, Bryan Kropf, and the Yousehouse Irregulars (Kevin Valerien, John Slotwinski, Ken Dunn, John Appel, Bob Lyman, Tom Meier, Wayne Hadady, Gene Gibson, and Darren Emge.)

PRINTING: Penn Photomounts

A Bridge Too Far RG Purchase Record (9.6178)

Fill out one line for each RG purchased

CG: **Side:** **Sheet #:**

CG Date	RG ID	Group Type	#P	#R	Str	# Units	SW Rec'd	Leader		Notes

Avalon Hill grants permission to photocopy this sheet for personal use.

A Bridge Too Far CG Roster (9.617)

Fill out one line for each CG Date

CG: **Side:** **Balance:**

CG Date	CPP Start	CPP Base	Var	Total	RG Purchased (RG ID, CPP Cost)	Spent	Left	SAN	Init.	Cum. CVP.

Fortifications

Mines Hex	Mines Type	Mines Str	HIP Hex	HIP Units	HIP CA	Misc. Fortifications Hex	Misc. Fortifications Type	Misc. Fortifications CA	Misc. Fortifications Hex	Misc. Fortifications Type	Misc. Fortifications CA	HIP Hex	HIP Units	HIP CA	HIP Hex	HIP Units	HIP CA

New Purchases:

HIP: Mines: Foxholes:

"?": Trenches: Wire:

Fort: **Total FPP Spent:**

Avalon Hill grants permission to photocopy this sheet for personal use.

APPENDIX A: USE OF OPTIONAL BLACK GERMAN COUNTERS

A Bridge Too Far includes a German OB, in reduced numbers in most instances, as a throwback to the old *Squad Leader* Series. As they are printed on a black background, some concessions to the existing *ASL* symbology were necessary to retain the detail of the artwork while not lessening the functionality of the counter. Generally, all the black text/marks on a counter become white (with some noted exceptions). Experienced players will quickly recognize these changes and will experience minimal impact on play. For those less familiar with the *ASL* system, the following example counters and explanations are provided:

INFANTRY/SW:



The only significant change to the Infantry/SW counters are that the malfunction "X" is now gray instead of white. There is no change in the meaning of the "X".

ORDNANCE:



This is a Small Target and suffers the (Un)Hooking penalty. The ring is slightly larger than the Target Size circle to assist in identification.

Similar to vehicles, the 360° symbol is gray instead of white to show up on the black background. The meaning doesn't change.

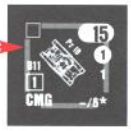


VEHICLES:



The biggest difference, **CYAN MP**, it means the vehicle is open-topped.

Gray turret symbols replace white, they mean the same thing (1MT in this case).





Unarmored vehicles. White outline stars (shown) represent solid black stars (ie., the vehicle is unarmored), solid white stars are small (or double small) targets, solid red stars are large (or double large) targets.



S

S. SOLITAIRE ASL

ORDER OF PRESENTATION:

1. Introduction
2. Random Events
3. S? and ENEMY Attitude
4. S? Placement and Entry
5. Activation and Generation
6. ENEMY Actions
7. RPh
8. ENEMY Attacks
9. ENEMY Movement
10. Enemy Rout
11. ENEMY APh & CCPh
12. The Missions
13. Mapboard Selection & Features
14. Victory Point Objectives
15. FRIENDLY Units
16. FRIENDLY Command Control
17. Solitaire Campaign
18. Campaign Companies

INTRODUCTION

INTRODUCTION: Solitaire ASL (SASL) *is played in Missions (12.). FRIENDLY forces generally consist of about a company of infantry, derived by the DYO method (15.1) or by a Campaign Game company (18.1). ENEMY forces are entirely unknown and are generated during play (5.). Game length is usually variable, depending on the Mission being played. Victory Conditions depend on gaining points (VP) during play, according to each Mission's "Victory Point Schedule".*

Terrain is generated randomly by the system (13.), and, in some Missions, is subject to expansion during play. Frequently, certain terrain features are designated as Victory Point Objectives (VPO; 14.), final Control of which contributes to victory determination. The player is free to select an historical time period (12.2; 17.21), and may choose to employ most optional rules [EXC: Battlefield Integrity and Interrogation should not be used]. EC, wind force, weather and ELR are determined using the DYO method (12.3-.4).

Random Events (RE) for either side are generated by the game system and are triggered by an appropriate Wind Change DR (2.). It is by such RE that random reinforcements (for either side) become available.

When the FRIENDLY side is advancing, likely Locations of ENEMY presence are determined during setup (although more can appear during play) (4.1). Such a Location is marked with a "S?" (Suspect) counter (3.). During Missions in which the FRIENDLY side is defending, ENEMY S? units usually enter from off-board (4.2) and attempt to close with FRIENDLY units. Such moving ("Advance Attitude") S? must be of a different background color from any non-moving ("Hold Attitude") S? concurrently in play, due to the different Actions that apply.

Whether a S? represents a real ENEMY unit(s), or is merely a dummy, is determined in play by the Activation process (5.). If successfully Activated, the content of the S? is individually generated by the various ENEMY Generation Tables (5.7). Once

***SOLITAIRE ASL* TERMS & DEFINITIONS:** The game terms below are used extensively in *Solitaire ASL*. Each term preceded by the "☞" symbol is especially important and should be thoroughly understood.

AC (Activation Check): A (dr) procedure to determine if a S? Activates as a real, or dummy, unit. (5.1)

AC# (Activation Check Number): The Final AC dr must be ≤ this number in order for the AC to be successful. If the Final AC dr is > this number the S? ("Suspect ?"; 3.1) is a dummy and removed, having no further effect on play. (5.1)

Action: One of four acts (Panic, Move, Fire or Entrench) that an ENEMY unit can be instructed to attempt during its Player Turn by an Action DR [A2a-b]. (6.1)

Action DR: The DR [A2] used to determine the Action of an ENEMY unit/stack for the current Player Turn. (6.1-.2)

Activated ENEMY unit: An ENEMY unit which is not a S?; one which has been generated from a S? or due to a RE.

Activation: The process of removing a S? and revealing its contents, if any. (5.7)

Attitude: An ENEMY unit is either in Advance or Hold Attitude. (3.2)

Automatic Action: A predetermined Action for an ENEMY unit, mandated by its current situation. (6.3-.317)

Built-Up Map: Any standard *ASL* mapboard with ≥ 19 building hexes. (4.12)

CG (Campaign Game): Of, or pertaining to, the *SASL* Campaign Game. (17.)

CMD#: The number a FRIENDLY unit must roll ≤ in order to be in Command Control. (16.2)

CMD DR: A *FRIENDLY* unit must pass a Command DR (CMD DR) or be within the Command Influence range of a FRIENDLY leader that has passed his CMD DR in order to be in Command Control. (16.3-.4)

Command Influence: Each FRIENDLY leader that has passed his CMD DR (or is within the Command Influence range of a better-rated FRIENDLY leader) has a Command Influence range of two hexes. (16.4)

Directly Attached: A unit/Weapon that is part of the FRIENDLY CG company. (17.131)

☞ **ENEMY:** Having to do with the nationality being controlled by the solitaire "system".

☞ **EBE (ENEMY Board Edge):** ENEMY units usually enter along the EBE, the mapboard configuration's edge opposite the FBE. For the sake of convenience, the EBE is always considered the *east* edge of the mapboard configuration.

Fire Command: A Priority List used to determine the Fire Action of an ENEMY unit. (8.1)

☞ **FRIENDLY:** Having to do with the nationality controlled by the player.

☞ **FBE (FRIENDLY Board Edge):** The mapboard configuration's edge along which FRIENDLY units normally enter; the player should be seated with this edge nearest to him. For the sake of convenience, the FBE is always considered the *west* edge of the mapboard configuration.

HW (Heavy Weapon): Each SW that is ≥ 3 PP (when assembled), or a Gun. An ENEMY unit possessing a HW will usually have an Automatic Action. (6.313)

IP (Improved Position): Each Entrenchment, Pillbox, Fortified Building, Gun Emplacement, or VPO Location. An ENEMY unit in an IP will usually have an Automatic Action. (6.312)

Letter Chit: One of 33 chits, lettered A through GG, provided in the *SASL* module. A Letter Chit, when drawn blindly from an opaque container, is used to randomly determine a like-lettered mapboard hexrow. See 4.1e or 4.21 for Letter Chit usage.

Mission: An *SASL* "scenario". (12.)

Move Command: A Priority List used to determine the Move Action of an ENEMY unit. (9.2)

MSR (Mission Special Rule[s]): The set of special rules, given at the end of each Mission, pertaining only to the play of that Mission. (12.1)

Panic: A non-Good Order (solitaire-only) condition affecting a FRIENDLY or Activated ENEMY *unit*, restricting its ability to act. (6.21-.213, 16.3)

Prevailing Attitude: The Attitude listed for the ENEMY in each Mission's "Prevailing Attitude" section which largely determines the way an ENEMY units moves. This Attitude is in effect at Mission start and remains so until otherwise changed (e.g., an MSR or RE dictates a change). (3.2)

☞ **Priority List:** A list of options used to determine, by the process of elimination, the precise action taken by an ENEMY unit; e.g., each Fire Command contains a Priority List used to select the Target when > one Target exists. Each item in the list is used to progressively narrow down the unit's options. If, by the end of the List, a decision has not been reached make a Random dr for selection. See 6.311/7.1/8.12/9.22 for EX of Priority Lists.

Prohibited Location: A Location which an ENEMY unit/Weapon cannot enter/set-up-in due (usually) to terrain restrictions. (S?: 3.323; ENEMY Activated unit: 5.61, 9.26)

☞ **Random dr:** Used to select a *single* option/unit; there can be no "ties" (i.e., unlike a Random Selection dr).

Random Event: see RE.

RAS ("Roll At Start"): Part of a *SASL* Move Command. (9.23)

RE (Random Event): An occurrence for the current ATTACKER used to randomly alter the present game conditions, possibly by the addition of reinforcements. (2.)

REH ("Roll Each Hex"): Part of a *SASL* Move Command. (9.24)

RE Numbers: A pair of consecutive numbers from 2 to 7 (e.g., 4/5) that, if either is rolled as the Wind Change DR, determine whether the ATTACKER will have a RE occur during that Player Turn.

Retained: Each FRIENDLY unit/Weapon in a CG company's OB that is available for the next CG Mission.

Road Network: A MSR-required continuous path of road hexes from one board edge to another. (13.231)

SASL: Pertaining to the *Solitaire ASL* system.

☞ **S? ("Suspect ?"):** A non-Activated ENEMY unit, the actual identity of which is not known until an AC is made for the S?. A S? is *not* considered a Known unit. (3.1)

☞ **Target:** An in-LOS, non-HIP FRIENDLY unit (non-abandoned if vehicular) or Gun that is within (long) range of an ENEMY unit that *can be affected* by any non-CH attack from that ENEMY unit/its-functioning-possessed-Weapon. The range of the ENEMY unit can be extended by any manned, functioning Weapon possessed-by/carried-onboard it. A FRIENDLY unit(s) in a Melee Location can only be considered a valid Target if the ENEMY attack into the Location would not affect the ENEMY unit(s) therein.

Temporarily Attached: A FRIENDLY unit/Weapon reinforcement granted (via MSR/RE) to a CG company for use during the current Mission (only). (17.132)

VP: victory point.

VPO (Victory Point Objective): An important tactical terrain Location (or group of Locations) designated by the player to aid in victory determination in some Missions. (14.)

Weapon: Any SW/Gun/Vehicular-armament/Daisy-Chain/MOL using the IFT/TK table to cause damage to the opponent.

INTRODUCTION

Activated, an ENEMY unit will move/fire according to the Action assigned to it (6.), which may be random or Automatic (6.3). The nature of the Mission, the Attitude of the ENEMY, and the Location of the ENEMY (among other things) all affect the type of Action the ENEMY unit takes.

In SASL, *FRIENDLY units (only) are subject to mandatory Command Control rules (16.). Furthermore, units of both sides are subject to Panic (6.211), a new (solitaire-only) non-Good Order status applicable for the length of a Player Turn (or until broken). Panicked units cannot move, and may only fire using FPF or Intensive Fire.*

SASL provides you with an integrated Campaign Game (CG) system (17.), allowing you to select your FRIENDLY nationality and play one Mission per month of the war on that front, following the progress of your "historical" company (18.) through those long and grueling years. Your CG company's OB is determined by your surviving units and any replacements received. Leader "promotion", squad "Battle Hardening" and Weapon replacement (on an historical schedule) are all possible. In a CG Mission it is especially important for you to decide when victory in the dangerous predicament you may find yourself in is worth the price you may be forced to pay—or whether it might be better to withdraw, hopefully extricating most of your command to fight again on another day.

No matter how the system is played, it can be a useful training device. It is an ideal tool for simply "boning up" on seldom-used rules and a good way to test new tactics for your next face-to-face engagement. However, in its own right, SASL *is a unique gaming experience; indeed, the "Fog of War" is more prevalent in a* SASL *Mission than a standard* ASL *scenario—a* SASL *Mission is full of surprises (sometimes nasty) and you never know what you'll be facing until the enemy is engaged. Being solitaire, however, you have no opponent to "keep you honest". Therefore, you should always be very unforgiving of yourself when forgetting to perform an action at the proper time, or if you suddenly find the Location a FRIENDLY unit just entered "generates" a nasty surprise. Once you have performed (or have forgotten to perform) an action, it is too late to backtrack.*

S.1 *SOLITAIRE TABLES:* There are many different tables necessary to play Solitaire ASL (SASL). The tables are organized into two general types: Basic Tables (used by all nationalities whether FRIENDLY or ENEMY) and specific Nationality Tables used to generate units specific to that nationality. Each Nationality Table has an ID code in the form of one or more letters and a number. Some tables have an additional lower-case letter (e.g., a, b, or c) following the table's primary letter-number ID code; this tertiary ID character denotes a further division of that table into several sub-tables.

S.1A *BASIC TABLES:* A table applicable to all nationalities is prefixed by the ID letter "A", followed by the table's number code.

EX: Table A1 is the ENEMY Activation Table which is used by all ENEMY nationalities.

S.1B *NATIONALITY TABLES:* Each nationality has its own unique set of solitaire tables for randomly generating the forces for that nationality. Each nationality's set of tables is preceded by a single capital letter denoting that nationality (as per the following chart). Additionally, whenever the lower-case letter "x" is a prefix to a table reference (i.e., "table x6") the rules are referring to any nationality's table with that ID number (but never to a Basic Table; S.1A).

NATIONALITY ID CODE LETTERS:

Letter	Nationality*	Letter	Nationality*
B	British	M	U.S. Marines
C	Chinese	N	Finnish
F	French	P	Partisan (French/Russian)
G	German	R	Russian
I	Italian	U	U.S. (ETO only)
J	Japanese	X	Axis Minor
L	Allied Minor		

EX: Table R2 is the Russian Squad Generation Table; table G2 is the German Squad Generation Table; table x2 is the squad generation table of any nationality (Russian, German, U.S., British, etc).

***NOTE:** Only the nationality tables for the German, Russian, U.S. and Partisan (as well as the Basic Tables card) are included in this module. Other nationality tables may become available in the future.

S.1C *BRACED TABLE REFERENCES:* If a table's ID code appears in braces (e.g., "{A6e}") the player *is being instructed to refer to* (and possibly make a DR [or dr, as necessary] on) the table noted.

S.1D *BRACKETED dr NUMBERS:* Some generation tables contain bracketed numbers within that table indicating that a subsequent dr is necessary to fully determine the unit being generated.

EX: The Mission date is August 1941. The player has made a DR of "4" on the "1941" column of the Russian Standard AFV Generation table {R6}, giving the result of "KV-2 [1-3]; KV-1 M39/40 [4-6]". The bracketed numbers indicate the player must now make a dr to determine which type of AFV is generated from among the listed types. A subsequent dr of "5" results in a KV-1 M39/40 being generated.

S.2 *FREE LOS CHECK:* Even before firing/making-an-AC, an ENEMY unit(s) is allowed a *free* LOS check when the LOS is questionable.

1. INTRODUCTION



1.1 *NATIONALITIES: SASL* puts the player in command of German, Russian *or* U.S. units (see 15.1); "generation" tables for other nationalities may be available later. Note that this system does not provide a method to play traditional *ASL* scenarios solitaire, but rather a means to "roll up" and play an endless variety of new, purely solitaire scenarios, or Missions (to use the game term). In addition, individual Missions may be linked together to form a comprehensive campaign with the *SASL* Campaign Game rules (17.)

1.2 *SIDES:* "ENEMY" units are controlled by the game system (you should, but do not have to, select an opposing side that would be historically accurate); you, the player, are responsible for "FRIENDLY" units (the units of your chosen nationality).

2. RANDOM EVENTS

2.1 *RANDOM EVENT NUMBERS TABLE:* Each Mission has one (or one for each side, depending on the Mission) Random Event (RE) Numbers Table used to determine the starting RE Numbers for each side for that Mission. When determining the parameters of the Mission, make a separate dr for each side on the RE Numbers Table. Each dr results in a pair of consecutive numbers (e.g., 5/6), hereafter called RE Numbers.





2.11 *MARKING THE RE NUMBERS:* Use the respective "RE #'s" marker to record the current RE numbers of each side on the "FRIENDLY/ENEMY RE# Track" (found on the Chapter S divider). Position the marker so that the two RE Numbers for that side are visible on either side of that marker.[1]

2.2 *RANDOM EVENT OCCURRENCE:* The Wind Change DR is also the RE DR for the current ATTACKER. If the Wind Change DR is equal to either of the ATTACKER's current RE Numbers (2.1) a subsequent DR is made on the pertinent RE Table to determine the specific RE. The ENEMY nationality always uses table A11 [EXC: Partisan ENEMY; 12.213]; the FRIENDLY nationality uses its specific "(FRIENDLY nationality) Random Event Table" {x9}. A RE, for either side, can occur only if ≥ one *Activated* ENEMY unit has been in play.

EX: It is the start of the German Player Turn of Game Turn two in a Mission where the German is the FRIENDLY side and an ENEMY unit has already been Activated. The German RE Numbers are 2/3. The wind change DR is a two, resulting in both a possible wind change and a German RE occurrence. A subsequent dr is made for the wind change (B25.65), followed by a RE DR on the German "German Random Event Table" {G9}.

2.3 *RE TABLE DR:* When making a DR on a RE Table {A11/x9} always use one colored die and one white die. The colored dr (of the RE DR) is always read as the "10's", the white as the "1's", thus producing an Original result from 11 to 66. Only the colored dr (of the RE DR) is subject to modification (+1 or –1), as specified by the Mission being played.

EX: To roll an Original RE DR of 36 requires a three on the colored die and a six on the white die. If there is a +1 drm (to the colored dr of that DR) the result will be a Final 46.

2.31 *RE OCCURRENCE LIMITS:* Each RE preceded by an "*" on a RE Table can only occur once during a Mission. When such a RE originally occurs, record its number (e.g., "ENEMY RE 64-65") in the box labeled "Non-repeatable REs" (found beneath the RE Track) on a photocopy of the Chapter S divider. If the same RE is subsequently determined, reroll for another RE.

2.4 *MAXIMUM/MINIMUM:* The RE Numbers of either side are subject to change (due to a RE occurrence or as per Mission instructions) during the course of a Mission. The maximum RE Numbers for either side are 6/7; the minimum are 2/3. Any instruction to change the RE Numbers above/below these numbers (respectively) is ignored; in such a case follow the provided alternate instruction instead.

2.5 *RE NUMBERS CHANGE:* If a side's RE Numbers are to increase, add one to *each* current number (e.g., 5/6 would become 6/7). If a side's RE Numbers are to decrease, subtract one from *each* current number (e.g., 5/6 would become 4/5).

2.6 *ENEMY RE UNIT ENTRY:* The player must enter each *ENEMY* RE unit during the MPh of the ENEMY Player Turn it becomes available. Each

such unit enters along the EBE unless noted otherwise in its RE. *FRIENDLY* RE units enter as per 15.5 and 16.33.

3. S? AND ENEMY ATTITUDE

3.1 *SUSPECT ?:* Most Activated ENEMY units appear on the mapboard due to the successful Activation of S? units. Some Missions (in which FRIENDLY units are attacking) begin with S? setup on the map; others (usually when FRIENDLY units are in a defensive posture) begin with S? entering from offboard along the EBE. Consult the specific Mission being played for the placement/entry of S?. In an *SASL* Mission the ENEMY has two potential types of "concealment":

- a normal "?" that functions as a standard concealment marker (placed on Activated ENEMY units to Conceal them, as per A12.) and
- a "Suspect ?" (S? hereafter) that represents a *potential* ENEMY unit(s) yet to be Activated and, as such, is considered a *non-Activated*, Good Order, unbroken Enemy unit. Each attack vs a S? is resolved as Area Fire (A12.13).

3.11 *STACKING:* Prior to Activation, a S? is considered as one squad for stacking purposes [EXC: if in Human Wave; 4.3].

3.2 *PREVAILING ATTITUDE:* There are two Attitudes that help determine the Actions (6.) of ENEMY units: "Hold" or "Advance". Each Mission lists the ENEMY's Prevailing Attitude which is the Attitude in effect at the start of that Mission for each S? setting-up/entering due to that Mission's "S? PLACEMENT/ENTRY" instructions. The Prevailing Attitude of the ENEMY determines his basic tactical stance: whether his units will attempt to close with your forces (Advance Attitude) or maintain their current positions (Hold Attitude). Due to RE occurrence, it is possible to have some reinforcing ENEMY units/S? in Advance Attitude even when the Prevailing Attitude is Hold. In such a case, reinforcing S? (or any S? governed by a special generation procedure; e.g. RE 36 or 54 {A11}) must have a different background color from other S? in play that are governed by a different Prevailing-Attitude/exit-edge/generation-procedure. Use a black-background S? marker for each S? in the Prevailing Attitude and other, different-colored S? markers for additional S?, as needed.

EX: When playing the "Cautious Advance" Mission with the Germans as the FRIENDLY nationality on the East Front, the player uses the (most-numerous) black-background S? for all S? initially set up onboard, as well as for any subsequently appearing S? that have the (same) Prevailing Attitude (e.g., due to ENEMY RE 06 {A11}, "ENEMY Infiltration"). Then, on turn four ENEMY RE 34 occurs ("ENEMY Reinforcements"). Different-colored (e.g., grey-background) S? must be used for each such Advance-Attitude ENEMY S? subsequently entering the map due to this RE occurrence. If, on the next turn, RE 54 were to occur (granting the ENEMY Russians ≥ 1 Human Wave), yet another different, yellow-background S? are used for each Advance Attitude Human Wave S?, as such are governed by a different *generation procedure* (4.34) than the other Advance Attitide S? that entered on the previous turn.

3.3 *S? CONDUCT & ACTIVATION:* A S? is checked for Activation[2] immediately when one of the following (3.31-.32) conditions is met (depending upon that S?'s Attitude):

3.31 *HOLD ATTITUDE:* A S? in Hold Attitude will *never* move/advance. It remains in its current Location until Activated, at which time any ENEMY unit(s) successfully Activated from it is subject to normal Actions (6.). A S? in Hold Attitude can be Activated in any of the following ways:

a) the S? is attacked resulting in a concealment-loss result on the IFT [EXC: a S? is an ineligible target for a Sniper attack (A14.22)], or

b) by the proximity and net IFT DRM (including LV) of a moving/routing/advancing FRIENDLY Target* [EXC: 8.61], or

c) if the Location of the S? is successfully Searched (A12.152) or Mopped Up (A12.153; see also 15.8-.9), or

d) if a Flame appears in its Location (a Blaze eliminates a S?), or

e) whenever the conditions of Long Range Activation (5.32) are met [EXC: 8.61], or

f) due to Mopping Up (15.9).

* Each nationality's table x1 lists the ranges (from the S? to the moving/routing/advancing FRIENDLY unit) and corresponding net IFT DRM applicable to that in-LOS moving/routing/advancing unit to determine when the S? is eligible for Activation (i.e., to have its Activation Check dr performed; 5.1). Note that the FFMO/FFNAM DRM do not apply to a routing/advancing unit's net IFT DRM.

3.32 *ADVANCE ATTITUDE:* A S? in Advance Attitude can be Activated in the same ways as a S? in Hold Attitude. Additionally, because each S? in Advance Attitude is eligible to move (indeed, must move in its MPh/APh), such a S? is also eligible for Activation whenever it is within 16 hexes and in LOS of a non-broken/stunned/shocked FRIENDLY ground unit, and the S?:

a) moves/advances in such a manner that would normally result in its Concealment loss (A12.14) as if it were an Infantry unit, or

b) enters a Location ADJACENT to a FRIENDLY ground unit (regardless of the TEM of the S?'s Location). The ENEMY unit(s) generated therefrom may retain concealment unless performing a concealment-loss activity when Activated.

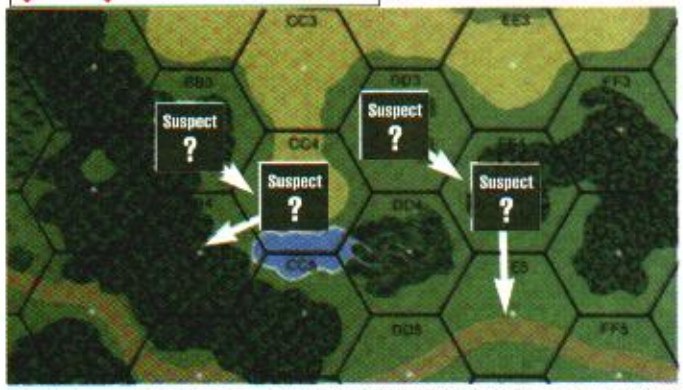
3.321 *MOVEMENT OF S?:* A S? in Advance Attitude moves along a (Alternate; as per E12.11, with the same coordinate number) Hex Grain toward the opposite board edge from the edge entered (S? placed directly onboard due to RE are considered to have entered the EBE for purposes of this rule). Each S? always has 6 MF [EXC: eight MF if in Human Wave [4.321]; +1 MF if road bonus applies], never uses Assault Movement, Double Time, nor Bypass movement, pays Infantry Movement costs for all Locations entered and is never subject to CX penalties (even if using Minimum Move or advancing into difficult terrain). A S? ceases movement if unable to enter the next Location (3.323).

Each ENEMY Infantry unit Activated from an Advance-Attitude S? during the ENEMY MPh ceases movement (i.e., ends its MPh, but is still subject to FFNAM/FFMO) when Activated (5.1) [EXC: if in Human Wave; [4.34]. Each ENEMY vehicular unit Activated from an Advance-Attitude S? during the ENEMY MPh ends its MPh when Activated but remains in Motion; for FRIENDLY Defensive Fire purposes, it is considered to have expended the minimal amount of MP required to enter the Location [EXC: Bog terrain; 5.712] (no Bounding First Fire is allowed). During following turns, each such unit performs Actions (6.) normally, dependant upon its Prevailing Attitude and unit type.

3.322 *S? ADVANCE:* In the APh a S? in Advance Attitude makes a dr and consults the applicable hex rosette {A4b} (depending on the map configuration) to determine the Location it advances into. A S? IN a Depression Location may instead claim Crest status (B20.9) in that Location (player's discretion). If unable to enter the determined Location (3.323), determine a different Location for the S? to enter (either roll again, or use Random dr, from among the eligible Locations, as necessary). See 11.1-.4 to determine the advance of an *Activated* ENEMY unit.



A4b ADVANCE ATTITUDE
ENEMY Infantry Movement Table
Random Move Hex Rosettes



EX: It is the APh in a Mission in which the German is the FRIENDLY side. The north edge of the map is to the left (i.e., the FBE is toward the bottom of this illustration), hence the hex rosette on the right is used, at its configuration aligns with the map's hexgrid. In the illustration above, each of the Advance-Attitude ENEMY S? is now to have its advance determined. The dr for the S? in 37BB3 is a "6"; it therefore advances into hex CC4. The S? in CC4 advances into BB4 (no dr is necessary, as no other advance is possible; it cannot cross the CC4-CC5 hexside *nor* enter the DD4 Marsh Location in the APh). The S? in DD3 however could advance into CC4 or EE4, therefore the player makes a Random dr to determine its advance, mentally noting that on a roll of ≤ 3 it will advance into CC4 (hence giving the S? equal odds to enter either CC4 or EE4). The advance dr is a "4", however, so it enters EE4. Finally, the S? already in EE4 must have its advance dr made. The dr is a "1"; however, since it too cannot enter the DD4 marsh in the APh, a subsequent dr is made. This time the dr is a "3", resulting in the S? advancing into EE5.

3.323 *PROHIBITED LOCATION:* A S? will not enter a Location that is/contains:

- a FFE blast area;
- a Known Minefield (15.21) [EXC: if the Minefield is in/ADJACENT-to a FRIENDLY-Controlled VPO Location];
- ≥ 2 ENEMY units;
- ≥ 4 Residual/Fire-Lane FP [EXC: if such FP is in/ADJACENT-to a FRIENDLY-Controlled VPO Location];
- a Water Obstacle
- Offboard [EXC: FBE; unless so directed by its MSR/RE instructions]; see also 9.4.

Furthermore, a S? may not enter a Location which an Infantry unit cannot enter during the current phase (e.g., a Marsh Location in the APh), nor cross (climb) a cliff hexside. It will instead attempt to move around such a Location/hexside, taking the shortest route toward the FBE (in hexes).

4. S? PLACEMENT AND ENTRY

4.1 *S? PLACEMENT:* The "S? Placement/Entry" section of each *SASL* Mission states the method that S? are setup-on/enter the mapboard configuration. If S? are to begin the Mission setup on the map, the player will be instructed to set up S? according to one or more of the following cases (a-e, following). Use a black-background S? marker for each initially placed/entering S? (as well as for subsequently appearing S? of the same Attitude *and* governed by the same generation procedures as initially placed/entering S?; 3.2). Refer to each Mission's section on "S? PLACEMENT/ENTRY" for more specific instructions on initial placement/entry of S? for that Mission. A maximum of two S? may be initially placed per on-board Location [EXC: 4.1e].

(a) One S? in each building/rubble/lumberyard Location [EXC: 4.11-.13].

(b) One S? in each woods/brush Location that has an odd *or* even coordinate (as determined by a single at-start odd or even dr for the each mapboard of the configuration; consider a coordinate of "0" as even) *and* is either part of ≥ three connected woods/brush Locations (i.e., the woods/brush depiction extends across a hexside(s) "connecting" to the woods/brush depiction in the ADJACENT Location) *or* is such a Location that is connected to the EBE in a Mission in which that edge may have additional mapboards activated along it [EXC: 4.11-.13].

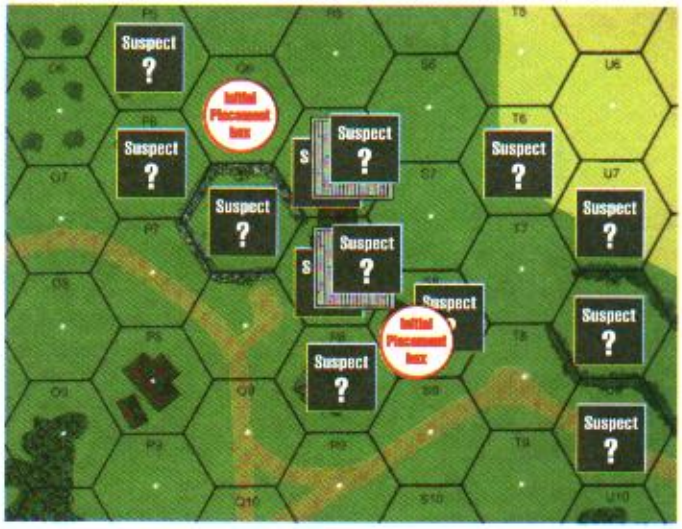
EX: Before beginning the "Bunker Busting" Mission the player must place S? according to 4.1's cases a and b. Two mapboards have been determined. As per case a, one S? is placed in each building/lumberyard Location (at each level) on both maps that is not within three hexes of a whole offboard hex along the FBE. Next, the player makes a dr for each map to determine S? Locations for case b. Both dr are even, therefore he now places one S? in each woods/brush Location on each map, providing that Location is a part of a group of three or more connected woods/brush hexes. Note however, since no additional maps may be activated during this particular Mission, a woods/brush Location that is along (or connected to) the EBE is not eligible (unless it is part of a group of three or more connected woods/brush hexes).

(c) One S? in each VPO Location (including each non-Rooftop/-Sewer Location of a VPO building) regardless of terrain [EXC: a S? is not placed on a *multi-hex* bridge unless the Location is Accessible to a land hex], as well as each Concealment Terrain Location ADJACENT to each VPO Location [EXC: 4.11-.13].

(d) One S? in each VPO Location (including each non-Rooftop/-Sewer Location of a VPO building) regardless of terrain [EXC: a S? is not placed on a *multi-hex* bridge unless the Location is Accessible to a land hex], as well as each Concealment Terrain Location within *two* hexes of each VPO Location [EXC: 4.11-.13].

(e) For each just-placed mapboard, make a dr [A6d] to determine the number of Letter Chits to be drawn. Draw all Letter Chits (each chit drawn determines a hexrow of the mapboard); after all Letter Chits are drawn make a subsequent dr+2 (resulting in a Final number ranging from 3 to 8) for each chit selected. This dr+2 determines the coordinate number of the hexrow determined by the Letter Chit, thus determining a "placement hex". Then make a dr [A6f] for a radius, in hexes, that S? are to be placed from the "placement hex". Place one S? in each eligible Concealment Terrain Location [EXC: 4.11-.13] within the determined hex-radius of each placement hex (including any such Location[s] in the "placement hex" itself). *A maximum of one S? may be placed per Location using this method, even if a hex is within the radius > one "placement hex".* An OG Location is considered Concealment Terrain for purposes of this S? placement method if a theoretical line of fire (regardless of whether such a LOS actually exists) from any level of (any of) the nearest off-board whole hex(es) of the FBE would cross a wall/hedge/bocage hexside of that Location *and* an ENEMY unit therein could gain wall advantage along such a hexside. Once all such S? are placed on a mapboard, return all Letter Chits to their opaque container, and repeat the procedure (as necessary) for each remaining mapboard.

NOTE: If ≤ two S? are placed for a Letter Chit repeat the procedure (remove the just-placed S? [if any], draw a new Letter Chit and make a new placement dr).



EX: S? are to be placed on mapboard 33 according to 4.1e. The FBE is from A1 to GG1. The player's dr on Table A6d is a 3, giving a result of "2". Therefore, two Letter Chits are drawn, with the letters Q and S being displayed (thereby determining hexrows Q and S on board 33). Next, the player makes one "dr+2" for each letter chit selected. An Original dr of 4 for chit Q becomes 6, thereby determining hex 33Q6 as a placement hex. The "dr+2" for chit S is a 6, determining S8 as the other placement hex. Next, the player must make a dr for each placement hex, and consult Table A6f to determine the radius (in hexes) that S? are to be placed in Concealment Terrain Locations from each placement hex. The dr [A6f] for placement hex Q6 is 6, thus giving a result of "1". One S? is placed in P5, P6 and each level of building hex R6. A S? is also placed in Q7 "behind" the Q6-Q7 wall hexside, as the LOF from the nearest offboard whole hex (offmap in hexrow Q in this case) would cross the Q6-Q7 wall hexside. Next, the "radius" dr [A6f] for placement hex S8 is a 4, thus giving a result of "2". Therefore, one S? is placed in each level of building hex R7, and at ground level in hexes R8 and S8. A S? is placed in U8 ("behind" the U7-U8 hedge hexside) and in U9 ("behind" the U8-U9 hedge hexside), as the LOF from the nearest offboard whole hex would cross those hedge hexsides (respectively). Too, if Grain is in season, a S? would be placed in Grain hexes T6 and U7, as both are within two hexes of placement hex S8. Note that only one S? is placed in each Location of Q7 and R6 despite those Locations being within the determined radius of *both* placement hexes.

If the FBE instead ran from A10 to GG10, S? could *not* be initially placed in P8, R8, S8, U8 or U9, as all of these hexes are within three hexes of a whole offboard hex along the FBE (4.11). However, a S? would now be placed in U7 (regardless of season) due to the U7-U8 hedge hexside.

4.11 *PROXIMITY TO FBE:* Regardless of the method used to place S?, a S? may *never* be initially setup within 3 hexes of any whole offboard hex along the FBE.

EX: S? are to be placed on board 4 according to 4.1a (only). The mapboard has been aligned such that the FBE extends from A1 to GG1 (the board's number is toward the south). Buildings P1, S2 and X1 may not have S? setup in them due to their proximity to the FBE. A S? is setup in T3, however, since it is not within 3 hexes of any whole offboard hex along the FBE (i.e., it is not within three hexes of whole offboard hex "S0" or "T0"

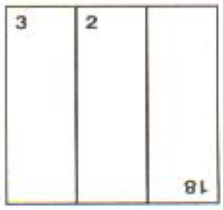
4.12 *S? PLACEMENT ON BUILT-UP MAPBOARDS:* Table A9e is used to determine S? setup (non-rooftop/non-sewer) Locations of each building/rubble *hex* on a mapboard with ≥ 19 rubble-Locations/buildings (even if the entire mapboard is not in play). No S? is placed in that hex if none of the determined Location(s) exist in that hex (e.g., a Final dr of 3 ["none"] or 5 ["Second Level"] [A9e] would have no effect for a Single Story House) [EXC: if such a hex is a VPO reroll until ≥ one S? is placed]. For purposes of this rule, each rowhouse *hex* is considered a separate building.

4.13 *WOODS MAPBOARD:* A S? is placed in a woods whole/half hex of a Woods mapboard (marked with the "w" prefix on Table A9) only following an Original *odd* placement dr (roll for each S? placement Location separately).

4.14 *S? IN CREST STATUS:* A S? setting up in a Depression Location is placed in Crest status (B20.9) so that the unit's LOS toward the FBE crosses as many crest hexsides as possible.

4.2 *MAPBOARD ENTRY OF S?:* ENEMY S? [EXC: if in Human Wave; 4.3] enter in one of two methods, dependant upon the mapboard configuration's alignment. If the determined entry hex is illegal/NA, repeat the procedure for that S?.

4.21 *S? ENTRY ALONG THE LENGTH OF A MAPBOARD:* Draw one Letter Chit for each Advance Attitude S? scheduled to enter along the length (i.e., the 22" side) of a mapboard. The ID of the Letter Chit determines the hexrow along that edge the S? will enter. Set up the entering S? in the RPh just offboard, next to that hexrow [EXC: if Overstacked (3.11), or Prohibited (3.323), pick a new Letter Chit]. Return each Letter Chit to the cup after placing its determined S?, before the next chit is drawn.



EX: Seven S? are scheduled to enter on the EBE of the board configuration shown at left. The player now randomly draws one Letter Chit from the opaque cup for the first S? to be placed. Since this Letter Chit has the ID letter "G" he sets up the first S? just off the east edge opposite hex 18G10, then returns the Letter Chit to the cup. He repeats this process six more times, once for each S? scheduled to enter on that turn. It is possible to have > one S? enter along the same (Alternate) Hex Grain.

4.22 *S? ENTRY ALONG THE WIDTH OF A MAPBOARD(S):* For each Advance Attitude S? scheduled to enter along the width of ≥ two mapboard(s) (depending upon the number of mapboards presently in the mapboard configuration or as per special entry instructions, if any) the player makes a DR in the RPh of the turn of entry. (If the S? are eligible to enter only along the width of a single mapboard, only a dr is necessary.) Disallow any river mapboard from the selection process. The colored dr (of the DR) is used to randomly determine the mapboard (of a multi-mapboard configuration) that the S? will enter. The player mentally assigns each eligible mapboard a number(s) from 1 to 6 so that each eligible mapboard of the configuration has equal odds of being selected (e.g., if two mapboards are eligible S? entry maps, one mapboard is assigned the numbers 1, 2 and 3 while the other is assigned the numbers 4, 5 and 6). The white dr (of the DR), modified by +2, determines the hex coordinate number of the mapboard that the S? will enter. Place each S? just offboard, adjacent to the hex it is to enter [EXC: if Overstacked (3.11), or Prohibited Location (3.323), make a new placement DR].

EX: Using the mapboard configuration pictured in the 4.21 EX, the player is to enter five S? in a "flank attack" along the north edge of the configuration. All mapboards are eligible entry boards. The player assigns the numbers one and two to board 3, three and four to board 2 and five and six to board 18. His first DR is a red 5 and a white 2. Therefore, he places a S? next to hex 18GG4, just off the north edge. The next DR is a red 2 and a white 6. The player places the next S? adjacent to hex 3A8 just off the north edge. This process is repeated until all S? scheduled to enter that turn are placed.

4.3 SASL *HUMAN WAVE S?:*[3] A Russian Human Wave may occur due to a RE, or as a standard part of Mission 14. All *ASL* Human Wave rules (A25.23-.231) apply except as amended below. Each *SASL* Human Wave S? should be a different color from all non-Human-Wave S? since a *SASL* Human Wave S? (even if not currently part of a Human Wave) always uses the Human Wave Generation table [R10] when rolling for generation. Each unit engaging in a *SASL* Human Wave receives the ML increase regardless of the Player Turn. Each Human Wave S? is considered as two squads for stacking/VP purposes.

4.31 *ENTRY:* Each turn a *SASL* Human Wave is to enter randomly determine two hexes along the EBE. Use either 4.21 or 4.22 to determine the hexes, depending on the edge being entered. Each of the two hexes thusly determined, and *each hex between them*, is an entrance hex for one *SASL* Human Wave S? [EXC: repeat the procedure if the two determined hexes have ≤ 2 hexes, or ≥ 11 hexes, *between* them].

EX: A *SASL* Human Wave is to enter along the length of board 19. Using the method stated in 4.21, the player draws two Letter Chits from their opaque container, resulting in hexrows "B" and "E" being specified. However, this would not be legal, as "the two determined hexes have ≤ 2 hexes...between them". Therefore, the two chits are returned to the cup, and the player repeats the process. This time chits "F" and "T" are drawn. Unfortunately, this is also not legal, as hexrows F and T have thirteen other hexrows *between* them. Therefore, these Letter Chits are also returned to the cup, and two more chits are selected. The third draw results in chits "N" and "X". This is legal since hexrows N and X have nine hexrows between them.

4.32 *ACTIONS:* Each Activated ENEMY unit that is part of a *SASL* Human Wave automatically has a Move Action (6.305) and is never subject to Panic *during its Player Turn* [EXC: leader; 6.317]. A *SASL* Human Wave unit always moves/advances toward the FBE. During movement, however, Human Wave units should attempt to Control any FRIENDLY-Controlled VPO when such is possible during their movement toward the FBE. See also 4.323.

4.321 *MPh: SASL* Human Wave units move as per A25.231 except that LOS to a FRIENDLY unit within eight hexes is not required (indeed, when entering from offboard such LOS is not possible), nor is it necessary to have a leader present in the Human Wave. A *SASL* Human Wave unit has 8 MF and moves before all other non-Human-Wave units [EXC: if berserk; 6.301].

4.322 *APh:* The APh should be used to close any gaps (or as many as possible) occurring in a *SASL* Human Wave (due to FRIENDLY defensive fire or movement around obstacles). If all such gaps cannot be closed, the player should instead attempt to close as many as possible in order to have the most units eligible to use Human Wave movement subsequently. If gaps do not need to be closed, *SASL* Human Wave units advance toward the nearest Target(s), and in so doing strive to avoid creating gaps.

4.323 *SUBSEQUENT TURNS:* Each ENEMY unit in a *SASL* Human Wave continues Human Wave movement in subsequent turns until it has entered a Location occupied by a Known opposing unit(s), is broken, eliminated, has exited off the FBE, or has been released from Human Wave movement due to obstacle interference (4.33). In order for an ENEMY unit to use Human Wave movement on a subsequent turn there must still be ENEMY MMC in a chain of ≥ 3 contiguous hexes with an average of ≥ 2 such MMC per hex (A25.23); however, the presence of an ENEMY leader is *not* necessary. Other Activated ENEMY Infantry units must be added to the Human Wave [EXC: if possessing functioning HW], provided such is in proper position at the start of its MPh.

4.324 *MULTIPLE WAVES PRESENT:* If multiple (on-/off-board) Human Waves are present, the wave with the unit that is closest to the FBE moves first.

4.33 *RELEASE:* If a *SASL* Human Wave (or portions thereof) runs into an obstacle which cannot be negotiated via Human Wave movement (such as a Water Obstacle, cliffs, rowhouse walls, etc.) those portions of the Human Wave immediately end their MPh, allowing the remainder of their wave (if any) to continue movement (alternately, you may wish to allow such a unit to delay, then follow in the tracks of an adjacent unit). Such a S? no longer able to continue Human Wave movement maintains Advance Attitude and use Table R10 for Activation. However, such already-Activated former Human Wave units unable to continue in the formation assume the Prevailing Attitude.

4.34 *GENERATION:* Whenever a *SASL* Human Wave S? is Activated (3.32), make a dr on the "Human Wave Unit Generation" table [R10] to determine the units generated. *No AC dr (5.1) is required for Activation of a Human Wave S? (even if that S? is no longer using Human Wave movement).* A Human Wave S? can never be a dummy. *SASL* Human Wave units (only) may continue movement after Activation, MF permitting.

4.35 *LEADER GENERATION DRM:* There is a +1 DRM on the Leader Generation table [R3] per leader/Commissar currently part of that Human Wave formation. There is a –1 DRM on the Leader Generation table [R3] if no leader/Commissar is currently part of that Human Wave.

4.36 *HUMAN WAVE FG:* A *SASL* Human Wave unit(s) will First Fire in the FRIENDLY MPh vs a Target as per 8.61-.612; in the AFPh/DFPh Human Wave units should form the largest FG possible in order to attack using the following:

Priority List: closest Good Order Target in least TEM; closest Target in least TEM.

4.37 *RECOVERY:* An ENEMY Human Wave MMC will only attempt Recovery of a SW of ≤ 2PP; an ENEMY Human Wave SMC will never attempt Recovery

5. ACTIVATION AND GENERATION OF S?

5.1 *ACTIVATION CHECK:* When a S? is eligible for Activation (see 3.31-.32) the player makes an Activation Check (hereafter AC) dr [x1]. If the Final AC dr is ≤ the current ENEMY AC# (as determined in the Mission's ENEMY AC# table) the S? is successfully Activated. Apply drm as listed on the Chapter S divider. When a S? is successfully Activated the S? is removed, and a subsequent DR is required [A1] [EXC: 4.34] to determine what unit(s)/Weapon(s)/fortification replaces it (if any). If the Final AC dr is > the current AC# the AC is unsuccessful and the S? is removed (it was, in effect, a dummy). [EXC: An Original AC dr of 1 is always a successful Activation; an Original AC dr of 6 always results in a dummy, or unsuccessful Activation.] Once a successful Activation has occured see 5.6-.7 for Activation and generation procedures [EXC: 5.32].

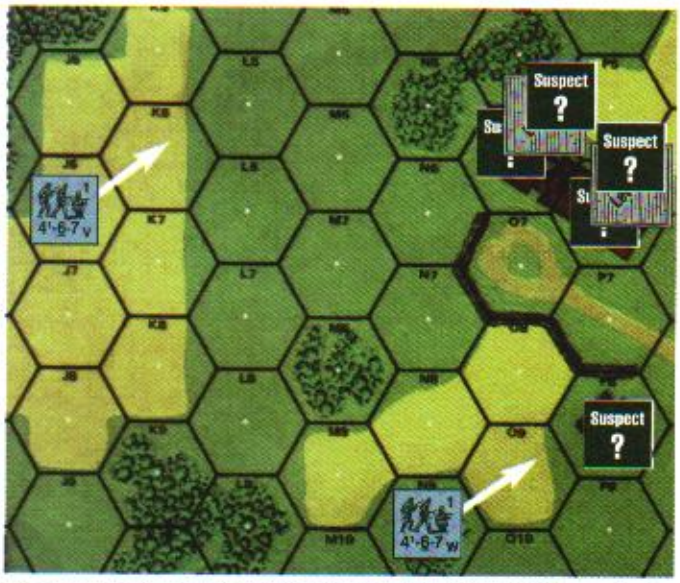


5.11 *MARKING THE AC#:* Each *SASL* Mission has a table used to determine the starting ENEMY AC#. Use the AC# marker to record this initially determined number on the ENEMY AC# Track (found on the Chapter S divider). The AC# is subject to change during a Mission due to RE occurrence.

5.2 *MULTIPLE S? ELIGIBLE FOR ACTIVATION:* When > one S? is eligible for Activation, the S? that is most likely to result in a successful Activation, after applying all possible AC Cumulative drm, has its AC made *first*. If > one such S? is still eligible, the S? closest to the FRIENDLY unit(s) causing the AC is checked for Activation first. Otherwise determine by a Random dr [EXC: if ≥ two S? *in the same Location* are eligible for Activation each is rolled for Activation separately; however, for FG potential (8.5), all such are Activated before another fires]. During the

FRIENDLY APh each eligible S? is checked for Activation (with the order determined as per above).

5.3 *MANDATORY ENEMY ATTACK:* Each ENEMY unit Activated during the *FRIENDLY* MPh immediately First Fires (as a FG if possible; 8.53) on the FRIENDLY unit(s) causing the AC, providing the moving unit(s) is a Target for the just-Activated unit(s)/its-possessed-Weapon(s). Panic is not possible for such a just-Activated unit. If the FRIENDLY unit(s) is a Target for only one (or some) ENEMY unit(s)/Weapon(s) in a Location with multiple ENEMY units/weapons, only that unit(s)/Weapon(s) fires; each non-firing unit remains concealed. If the Activated unit has > one Weapon that can be fired at the Target the player should fire such in the relative order of effectiveness vs that Target, or as a FG (player's discretion). If the moving Target expended ≥ 2 MF/MP to enter the Location Subsequent-FF/ROF attacks are conducted as possible until that Target loses its Good Order status (or is eliminated if berserk). See also 5.31-.32 and 8.13.



EX: In the illustration it is the German MPh in an East Front, August 1941 Mission with clear weather; the Russian side is the ENEMY. The current ENEMY AC# is 3 (5.1). German squad V uses Assault Movement to enter K6, making both S? in O6 eligible for Activation (case C of table R1: range = four; Final IFT DRM = 0). The player must first make the AC for the S? most likely to Activate. Since the Russian S? on the first level has a –1 AC drm (–1 per level above the hex's Base Level) its AC is rolled first. Rolling an Original dr of 5 [R1], modified to 4, nothing is Activated (as four is not ≤ 3, the current AC#) and the S? on the first level of O6 is removed (it was a dummy). The player then makes an AC dr [R1] for the S? at ground level in O6. Rolling an Original dr of 2 (no drm apply) results in a successful AC. The player then makes a DR [A1] to determine what unit(s), if any, are Activated. Unless the Final DR is a ? (which would result in a dummy) the Activated unit(s) will First Fire (5.3) at the Target causing its AC (squad V, in this case).

Next, squad W uses Assault Movement to enter O9. The S? in P8 and on the first level in P6 are both eligible for Activation (the former because the opposing unit is ADJACENT, case F of table R1; the latter because an opposing Infantry unit is at a range of ≤ 4 hexes with a Final IFT DRM of ≤ 0, table R1's case C). Again, the S? in the upper level must have its AC performed first. An Original AC dr of 6 [A1] results in no Activation (5.1). The player then makes an AC for the S? in P8, rolling an Original dr of 1 [A1], resulting in an automatic Activation. He then makes a DR [A1] to determine the unit(s) Activated, if any. Each unit Activated in the FRIENDLY MPh fires at the unit causing its AC if such aunit is a Target for it.

5.31 *CONTINUING ATTACKS:* If an attack (as per 5.3) fails to cause the opposing moving unit(s) to lose its Good Order status (or eliminate a berserk unit) the next eligible S? must be checked for Activation, and so on, until either the opposing unit(s) loses its Good Order status (eliminated if berserk) or all S? eligible for Activation by that moving unit in its current Location have been checked for Activation.

5.32 *LONG RANGE ACTIVATION:* A S? is eligible for Activation during the FRIENDLY MPh as soon as all of the following conditions are met:

- the moving unit(s) is non-vehicular,
- if fired upon from the S?'s Location, the moving unit(s) would have a Final IFT DRM of ≤ –2, and
- the S? is ≤ 16 hexes from the moving unit(s), but is otherwise ineligible for Activation due to it being beyond the range listed in case A of the ENEMY's AC table [x1].

When a S? so qualifies, make a DR. An Original DR of "2" results in the S? *automatically* Activating; if the Activation DR is ≥ 3 no Activation occurs but (unlike normal Activation, 5.1) the S? is *not* removed.

Each S? Activating due to Long Range Activation automatically generates one squad [x2] possessing a HMG [EXC: 50c. HMG on Subsequent dr of 1 if such is available for the ENEMY nationality] (any HMG Activated due to Long Range AC is never dm) and one leader [x3; a special –1 Cumulative DRM applies; reroll until a leader is determined]; if the S?'s Attitude was HOLD a dr [A5] is also made for possible fortification. Only one such Long Range Activation DR can be made per moving unit/stack regardless of the number of Locations traversed by the unit(s). Furthermore, only one such S? can be Activated per moving unit/stack. Activate the closest eligible S? to the moving unit(s) if > one S? qualifies; otherwise determine the S? Activated by a Random dr. The just-generated squad must First Fire the HMG (using the leader's direction and its own FP, if applicable) at the moving Target(s) as per 5.3 and 8.13.

EX: The FRIENDLY side is the German; the Russians are ENEMY. The player wishes to move his FRIENDLY 4-6-8 Infantry squad and a 9-2 leader from 33B5 into the woods in 33B2, via hexes B4, B3, C3 and D2. There are no ENEMY units with LOS to the Locations the FRIENDLY units will enter except for a S? in 33N9 and another S? in 33O9. However, since both of these S? are beyond the longest range given in Table R1 (i.e., case A's 8-hex range), the player decides to chance the maneuver, knowing that the only danger to the units would be due to Long Range Activation. Feeling confident, the squad and leader use non-Assault Movement to enter the woods in B4, and then the OG in B3. At this point, the player must make a Long Range Activation DR as both S? are eligible for Long Range Activation. The player's worst fears are realized, however, as the DR is an Original "2", resulting in the closest eligible S? (in N9) Activating. The player thus makes a DR [R2] for squad type, and generates a 4-5-8. His DR for leader generation is equally ominous, resulting in a 9-2 leader. A subsequent dr for HMG type must also be made, since a Russian 50c. HMG is possible. Fortunately, this dr is a "4", and a standard "6-12" HMG is generated. These just-generated ENEMY units must now conduct First Fire vs their Targets in B3. The player cringes as he rolls the dice for the "6 minus 4" attack. To his wild delight, however, a 12 is rolled, breaking the HMG! The FRIENDLY squad and leader can now proceed to E2 safely, since only one S? may be Activated due to Long Range Activation per moving unit/stack. Assume now, however, that another FRIENDLY squad (also starting its MPh in 33B5) follows in the tracks of the previous German units. When this unit enters OG hex B3 the remaining S? in 33O9 now checks for Long Range Activation. This time the Long Range AC DR is a "9". The S? does not Activate and the German squad continues on its way toward E2. Note that the S? in O9 is *not* removed, and can again be checked for (Long Range) Activation should yet another FRIENDLY unit(s) move.

5.4 *CA SELECTION:* Whenever an ENEMY AFV/Gun/fortification (that must have its CA determined) is Activated a CA must be selected for it (MA if armed vehicle) that includes the FRIENDLY unit causing its AC, and as many other Targets as possible.

5.5 *ACTIVATION BY FRIENDLY DEFENSIVE FIRE:* An ENEMY unit Activated by FRIENDLY Defensive fire will use its AFPh to fire. Perform an Action DR (6.2) during the ENEMY AFPh for each such ENEMY unit. Barring Panic, each such unit with a Target automatically receives a Fire Command [A3].

5.6 *ACTIVATION PROCEDURE:* Each *successful* AC (5.1) requires a subsequent DR on the ENEMY Activation Table [A1] [EXC: 5.32]. Apply DRM as necessary, depending on the Mission being played (see MSR). The Final DR on this Table indicates the *type* of ENEMY unit(s) being Activated [EXC: a Final DR of seven results in nothing being Activated]. A non-dummy result lists if an AFV, squad (S), half squad (HS), leader (L), fortification (F), support weapon (SW) and/or Gun is Activated.

Further DR (or dr, as necessary) are then necessary to determine the specific unit(s)/Weapon(s)/fortification Activated. Each such Activated item is generated in the order presented in the table A1 result. Generation tables are found on the ENEMY nationality's "Generation Tables" card [EXC: fortifications [A5]]. See the following list for explanations of the various abbreviations used in table A1 and what subsequent generation table(s) is necessary to determine each unit Activated. See also the 5.752 EX.

Term	Game piece represented	Subsequent Table necessary
S	Squad Table	x2
HS	Half Squad Table	x2
L	Leader Table	x3
SW	Support Weapon Table	x4
Gun	Gun Table	x5
AFV	Standard AFV Table	x6
SPG	Self-Propelled Gun Table	x6a
F	Fortification Table	A5

5.61 *ACTIVATION IN PROHIBITED LOCATION:* A unit/Weapon/fortification to be Activated in a Location it is not allowed to set up in or enter is forfeit (e.g., a vehicle in a crag, marsh or upper-building-level Location or in Crest status; a non-fully-tracked vehicle in a building Location or in Crest status; non-MTR Gun or Trench/Foxhole/Pillbox in crag or marsh). See also 5.712, 5.742, 5.753 and 5.761.

5.7 *GENERATION PROCEDURE:* When a S? is Activated (and usually when a RE dictates that a side receives non-S? reinforcements from off-board) the player must use the proper generation table for that nationality to determine the precise unit(s)/Weapon(s) Activated [EXC: 5.32]. If your

countermix does not contain enough of a specific unit or Weapon thusly determined, reroll on the same generation table until a different unit or Weapon is Activated that is available [EXC: If you are out of squads of an MMC type when all MMC of a group of S? are to be that certain type (e.g., all are supposed to be SS or 7-4-7; see 12.22), substitute two HS of that same type]. All generation tables for a specific nationality can be found on that nationality's "Generation Tables" card.



5.71 *AFV/VEHICLE GENERATION:* Make one DR (no DRM apply) on the ENEMY's AFV Generation Table {x6} for an "AFV" listed in the A1 table result. Each ENEMY vehicle is CE (if applicable) when initially entered/Activated [EXC: each 1MT or RST tank Activated from a S? is BU initially]. See also 3.321.

5.711 *AFV CREW QUALITY:* Make a DR on that nationality's Leader Generation Table {x3}, using the "Armor Leader" column (applying applicable DRM), for each group of three armed AFV (or fraction thereof) received *by either side due to RE* or (if FRIENDLY) allowed by MSR. If > one AFV is entering, an ENEMY armor leader should be placed with the best armed/armored (player's discretion) AFV entering. If the result is "Inexp. Crew", *each* AFV normally required to enter using platoon movement has an Inexperienced Crew (D3.45).

5.712 *IN BOG TERRAIN:* A vehicle may be Activated in a Location which would normally require it to make a Bog DR (D8.2) after entrance. The (otherwise necessary) Bog DR is considered to have been passed [EXC: if the S? the vehicle was Activated from was in *Advance* Attitude an immediate Bog check is made; such a vehicle is considered to have entered the Location using its entire MP allotment (including one to stop)]. If applicable, place a partial TB across the hexside entered (use a Random dr, of the eligible RVCA hexsides, if such cannot be determined/remembered).

5.713 *OPTIONAL ARMAMENT & EQUIPMENT:* Make an Availability DR (as per H1.41-.42) to determine the presence of any optional-armament/Schuerzen/Gyrostabilizer on each such eligible FRIENDLY/ENEMY AFV activated/received. No "points" need be expended.



5.72 *MMC GENERATION:* Make one DR (apply applicable DRM) on the ENEMY's Squad Generation table {x2} for *each* "S" listed in the A1 table result. Likewise, if "HS" was listed make a DR on the same table to determine the squad *type*, but a HS is Activated rather than a squad. [EXC: If the ENEMY nationality is not normally allowed to Deploy, a "HS" result is considered to be an "S" result.] See the 5.752 EX.



5.73 *LEADER GENERATION:* Make one DR (apply applicable DRM) on the ENEMY's Leader Generation table {x3} for an "L" listed in the A1 table result.



5.74 *FORTIFICATION GENERATION/SMOKE:* If the Prevailing Attitude is Hold, make a dr on the Fortification Table {A5} if an "F" is listed in the A1 table result. The squad stacking capacity of such a fortification must be the same as the number of MMC Activated with it [EXC: 5.743]. The additional TEM of a just-Activated fortification might render the PTC (causing the Activation) ineffective or reduce the effect of other IFT results, or even turn a hit into a miss. In such a case the unit(s) and fortification are still Activated but are placed under a concealment marker if a PTC or hit was nullified, or suffer a less-severe IFT result, as applicable. [EXC: if Activation of a fortification causes a unit that will be in that fortification to lose its LOS to ≥ one FRIENDLY unit (e.g., an Foxhole Activated "behind" a wall), the fortification result is ignored.]

If the Prevailing Attitude is Advance, an "F" result *during the ENEMY MPh* (only) is treated as an automatic same-hex Smoke placement [EXC: wind force or terrain's Location prohibit such] *after* each FRIENDLY unit has been given a chance to conduct defensive fire, *providing* the just-Activated ENEMY unit has a Smoke Placement Exponent or (if AFV) has Smoke Dischargers. No placement attempt dr is necessary, nor is any entry/placement MF/MP expenditure required.

5.741 *GUN IN TRENCH:* If a Gun is also to be Activated in the Location (Final result of 14 [A1]) a fortification result of "entrenchment" [A5] is automatically a Trench.

5.742 *FORTIFIED BUILDING LOCATION:* If a fortification Activation occurs in a building Location and the dr {A5} results in a successful fortification generation (Final dr ≤ 4) that building Location (and each such level beneath it) is henceforth Fortified (B23.9), *even if* such fortification would have altered/disallowed a *previous* action/result (e.g., PTC/MC/entry/kindling/flame-spread, etc.). Activation of an upper-level Fortified Building Location allows a Gun to possibly be Activated therein.

5.743 *SUBSTITUTION:* If the player does not have the necessary fortification counter type in his counter mix [EXC: Fortified Building Location] an appropriate substitution is made, in the following order:

- substitute a same-type counter with a greater squad stacking capacity, or
- if a pillbox, substitute one with a different TEM but same stacking capacity), or
- substitute a trench for a pillbox or foxhole, or
- substitute a foxhole.



5.75 *SW GENERATION:* Make one DR (no DRM apply) on the ENEMY's SW Generation table {x4} for a "SW" listed in the A1 table result.

5.751 If a SW and ≥ two ENEMY MMC are Activated from the same S?, that SW must be possessed by the MMC with the greatest BPV just Activated. If ≥ two such MMC exist determine the possessor by Random dr.

5.752 Each SW Activated from an Advance-Attitude/Paradropping S? must be dm if possible [EXC: 5.32].

EX: A Russian S? has had a successful AC (5.11). The player now consults table A1, rolling an Original DR of 4. Because he is playing the "ENEMY Offensive" Mission there is a –1 DRM, giving a Final DR of 3, resulting in "S, S, L, F, SW". The player now performs two separate DR {R2} to determine the two squad types. He rolls Original DR of 2 and 9, both of which are modified by +2 since the date is August 1941. Thus a 4-5-8 elite squad and a 4-2-6 Conscript squad are Activated (Final DR of 4 and 11, respectively). Because a leader may also be Activated (the "L" in the A1 Table result) the player makes another DR {R3}. An Original DR of 6 results in a Final DR of 6 (as the +1 date DRM and the –1 DRM for "Any accompanying MMC is elite" cancel out), resulting in an 8-0 leader being Activated. However, since the date is prior to 10/42, it is possible the 8-0 leader is replaced by a 9-0 Commissar. The player rolls a subsequent dr of 4, resulting in the 8-0 being received after all. The "F" result (for Fortification) is ignored since the Activated unit has no Smoke making ability (5.74). Lastly, since a SW may be Activated with one of the MMC (the "SW" in the result), the player makes a DR {R4} using the appropriate (i.e., "1941") column (no DRM apply). His DR of 5 results in a dm light mortar being Activated (dm because the Russian is in Advance Attitude; 5.752), and possessed by the best-class MMC in the Location (5.751), in this case the 4-5-8 squad. Thus an 8-0 leader, a 4-5-8 squad possessing a dm light mortar, and a 4-2-6 squad are Activated.

5.753 *MORTAR:* A mortar of ≤ 60mm Activated in a building/bunker Location is replaced by a MMG; if ≥ 70mm a HMG is instead Activated.

5.754 *BAZ/PSK BACKBLAST:* Each SW generation result of "BAZ" or "PSK" in a non-factory-building or pillbox Location is rerolled {x4} until a different result occurs.[4]



5.76 *GUN GENERATION:* Make one DR (no DRM apply) on the ENEMY's Gun Generation table {x5} for a "Gun" listed in the A1 table result. Each ENEMY Gun Activated is automatically manned by an Infantry Crew (A1.123) of that nationality [EXC: Partisans use (Russian) 1-2-7 crews].

5.761 *INSIDE/OUTSIDE:* The Location the Gun is Activated in determines the column {x5} which must be used. If Activated in a building or pillbox Location the "Inside" column must be used; otherwise use the "Outside" column. If the Gun is Activated in an upper building level *and* a fortification is successfully Activated, that building Location (and each such level beneath it) is henceforth Fortified (B23.9), even if such fortification would have altered/disallowed a previous action/result (e.g., PTC/MC/entry/kindling/flame-spread, etc.; see 5.74-.742).

EX: The player controls the Germans in an August 1941 "Bunker Busting" Mission on the Eastern Front. FRIENDLY units have just fired on a S? on the first level of a Two Story House, achieving a PTC. The AC dr is successful, requiring a subsequent DR on table A1 (5.1). The Original DR is a 12 (a +2 DRM applies since the Mission is "Bunker Busting") resulting in a Final DR of 14. The {A1} result is "S, F, Gun". First the ENEMY MMC is determined {R2}. Next, an Original dr of 4 is made {A5}, modified to a Final dr of 3 due to MSR drm, resulting in a successful fortification Activation. Since the fortification is occuring in a building, the Location (as well as the ground-level Location beneath the Activation Location) is automatically Fortified (5.742). Finally, a DR is made {R5} using the 1941 "inside" column (since the Gun is being generated in a building Location). The {R5} DR is a 5 (no DRM apply), resulting in the generation of a 45L AT Gun with a manning 2-2-8 (Infantry) crew (5.76), which must now undergo a PTC.

If the S? had instead been in a Location in which such a Gun cannot enter or set up (e.g., in a crag or marsh Location, or at crest status in a gully), the Gun and its manning crew would instead be forfeit (5.61). Note, however, that in such a case a MTR and crew can Activate in a crag, or a dm MTR can Activate in a marsh or at crest in a gully.

5.762 *EMPLACEMENT:* A Gun Activated from a S? in Hold Attitude is automatically Emplaced [EXC: in Prohibited terrain]. If in Advance Attitude such is never emplaced and must be Limbered when Activated [EXC: QSU Gun].

6. ENEMY ACTIONS

6.1 *ORDER OF DETERMINATION:* Regardless of the ENEMY nationality, the appropriate ENEMY Action Table [A2a-b] (depending on the unit's Attitude) is used to determine what Action each *onboard, Good Order, Activated* ENEMY unit will attempt during the current Player Turn [EXC: if under Recall]. When rolling for ENEMY units' Actions during the PFPh, begin on the north edge of the mapboard configuration and work toward the south, hexrow by hexrow. If a hexrow has multiple ENEMY-occupied hexes, roll for the ENEMY-occupied hex nearest to the FBE first, then the second nearest, and so on. If a hex has multiple ENEMY-occupied Locations in it roll for the highest ENEMY-occupied level first and work toward the base level. If a Location has multiple units that must have separate Actions determined, use the following to determine the order:

Priority List: Infantry possessing functioning Gun; Infantry possessing functioning HW; all other Infantry units; AFV with functioning armament; other AFV; other vehicle.

An offboard Activated ENEMY unit is never subject to Actions on its turn of entry (9.32).

6.11 *ENEMY PLAYER TURN:* At the start of the ENEMY PFPh make a DR [A2] (herafter called an Action DR) for each *Location* containing ≥ one Good Order *Activated* ENEMY ground unit [EXC: vehicle/Gun (6.13); Human Wave (4.32)]. The Action DR determines the general Action (i.e., Panic, Fire, Move, or Entrench) that the ENEMY unit/stack will conduct during the current Player Turn [EXC: 6.3-.3175].

The unit/stack *immediately performs any specified PFPh Action* (i.e., Fire or Entrench) unless it Panics (6.21; in which case it is immediately marked with a Panic counter) before rolling the Action DR for the next eligible unit/stack. If the [A2] result is "Fire", immediately determine the unit/stack's specific Fire Command [A3a-d] (6.23) [EXC: if only one Target is available, the unit simply fires at that Target]. If the [A2] result is "Move", mark the Location with a MOVE counter, in which case its specific Move Command is determined [A4a-c] and performed in the upcoming ENEMY MPh (6.22).

6.12 *FRIENDLY PLAYER TURN:* During the FRIENDLY Player Turn the appropriate Action Table [A2] is used only to determine if an Activated ENEMY unit Panics [EXC: 5.3]. On any result other than Panic it will conduct Defensive First/Final Fire at a Target(s) (8.6). Make a separate Action DR [A2] for each Location with ≥ one unbroken Activated ENEMY unit with a Target [EXC: each unshocked/unstunned ENEMY AFV/Gun must have a separate Action DR made for it; 6.13] when required to conduct Defensive (First) Fire. Regardless of the number of times a DEFENDER ENEMY unit fires during a Player Turn, only one Action DR is made for it per that Player Turn.

6.13 *ARMED VEHICLE OR GUN:* A separate Action DR [A2] is made for each unshocked/unstunned ENEMY armed-vehicle [EXC: one Action DR is made for each ENEMY AFV platoon; if such a vehicle has no fuctioning armament ignore a Fire Command and perform the alternate Action] and each manned ENEMY Gun. A Good Order ENEMY crew stays with a malfunctioned ENEMY Gun and attempts repair (7.4).

6.2 *ENEMY ACTION TABLES:* The appropriate Action Table [A2a-b] (depending on the Attitude of the specific ENEMY unit being rolled for) is used to determine the Action of each Activated ENEMY unit/stack eligible for Actions [EXC: if an Automatic Action takes precedence; 6.3]. See 6.21-.24 for Action explanations. If the assigned Action is not applicable to the assignee, consult that Action's footnote to determine an alternate Action.

EX: During the ENEMY PFPh an ENEMY Infantry unit in Hold Attitude (with no applicable Automatic Action) has been given the "Fire" Action [A2b]. If the unit has no Target available it instead attempts to Entrench. If in a Location in which entrenchment is not possible (or if it is already entrenched/emplaced) the unit does nothing. If the ENEMY unit is an armed vehicle it would instead be given a "Move" Action (but the specific Move Command [A4c] is not determined until the upcoming MPh; 9.2).



6.21 *PANIC:* Each Original doubles DR on an ENEMY Action Table [A2a-b] is a potential Panic result, depending on the Class of the *unit(s)* involved. An elite unit or an AFV with functioning MA [EXC: Inexperienced Crew] Panics on each doubles DR ≥ 10; a first-line unit Panics on doubles DR ≥ 6; a second-line or Partisan unit and all other vehicle types [EXC: Inexperienced Crew] Panics on each doubles DR ≥ 4; a conscript or green MMC unit or a vehicle with an Inexperienced Crew Panics on all doubles DR.

6.211 *CONSEQUENCE:* Each unit that Panics (whether FRIENDLY [16.3] *or* ENEMY) is immediately marked with a Panic marker for the balance of the current Player Turn or until broken or the unit becomes berserk/Battle-Hardens (whichever occurs first). All penalties of being TI apply (A4.8); see also 6.212-.213. A Motion vehicle that Panics immediately loses Motion status (paying 1 MP to stop if during its MPh). A Panicked unit is never in Good Order. Panic does not cause loss of concealment.



6.212 *MANDATORY PANIC ATTACK:* Each Panicked DEFENDER is assumed to be marked with a Final Fire counter. Such an Infantry unit *must use FPF* whenever possible vs an ADJACENT or same-Location moving Target(s). Such an armed vehicular unit must use Intensive (or Sustained) Fire whenever possible vs an ADJACENT or same-Location moving Target(s) (for the purposes of this rule, consider an eligible ENEMY unit as a Target for a Panicked FRIENDLY DEFENDER unit).

6.213 *PANIC AMBUSH/CC:* A Panicked unit/stack has a +2 drm to its Ambush dr. A Panicked unit may attack/defend in CC if attacked. Any attacks by it have a +1 DRM to the CC resolution DR; each attack against it qualifies for a –1 DRM to the CC resolution DR.



6.22 *MOVE:* Each ENEMY unit given a Move Action [A2] will move in its (the ENEMY's) MPh [EXC: if non-Mobile]. During the ENEMY MPh a DR is made on the appropriate ENEMY Movement Table [A4a-c], depending on the unit's current Attitude/unit-type. See 9.1-.4 for details on ENEMY movement procedures.

6.221 *ASSAULT MOVEMENT:* Regardless of whether an Infantry unit's Move Command instructs use of Assault Movement, it is assumed that if it only moves to an Accessible Location that Assault Movement is used [EXC: if Minimum Move is required].

6.222 *DOUBLE TIME:* If an Infantry unit's Move Command instructs it to use Double Time movement when such is impossible (for whatever reason), or not necessary (given other move instructions), the unit uses normal or Assault Movement instead.

6.223 *ENEMY OVERSTACKING:* A Good Order Activated ENEMY unit/stack will never purposefully enter a Location if in doing so that Location would become Overstacked [EXC: if moving unit(s) is part of a Human Wave]. An Overstacked Location (or one already stacked to capacity with Infantry; A5.1) is considered a Prohibited Location for an ENEMY unit to enter [EXC: if no other rout path is available]; 9.26. If Activation of a S? causes its Location to become Overstacked the Activation is still performed, but the Overstacking must be alleviated as soon as possible; see 6.307.



6.23 *FIRE:* Each ENEMY unit given a Fire Action [A2] will fire at a Target(s) [EXC: no Target available]. Make an immediate subsequent DR on the appropriate ENEMY Attack Table [A3a-d], depending on the type of unit(s) firing and Target type(s), to randomly determine the firing unit's Fire Command. If no Target is available consult the applicable footnote [A2] for an alternate Action. See 8.1-.9 for details on ENEMY fire attacks.



6.24 *ENTRENCH:* Only Infantry MMC may conduct this Action. The MMC must be in a Location in which entrenchment is possible (B27.1). If entrenching is attempted place TI/Labor counters as necessary (B27.11). If entrenchment is not possible consult the applicable footnote [A2] for an alternate Action.

6.241 *RESTRICTED LOS:* An ENEMY unit conducts its alternate Action (6.2) if instructed to Entrench when all LOS to Target unit(s) is across wall/hedge/bocage hexside(s).

6.3 *AUTOMATIC ACTIONS:* Each Activated ENEMY unit that is eligible for ≥ one Automatic Action has its Action for that Player Turn predetermined. Such a unit *must still make an Action DR* [A2] [EXC: 4.32], but, barring Panic, the unit will carry out its designated Automatic Action. Some Automatic Actions occur only during the MPh, depending on a unit's move or the current situation (i.e., 6.315-.317).

If a unit has ≥ one Automatic Action applicable, the Automatic Action with the lowest rule number (6.301-.3175) takes precedence. It is possible that a unit must perform > one Automatic Move/Fire Action.



6.301 *BERSERK CHARGE:* Each berserk ENEMY unit uses A15.43 to determine its charge. Should > one "charge target" exist the berserker charges the Location with the least number of Target unit(s) (in US#); in the greatest TEM.



6.302 *UNARMED MMC:* A Good Order unarmed ENEMY MMC should take the safest route (player's discretion) in an attempt to exit off the EBE.

6.303 *ENEMY GUARD:* A Good Order ENEMY SMC Guarding a prisoner

will Transfer it to the first eligible ENEMY MMC in the same Location. A Good Order ENEMY squad Guarding a prisoner will automatically Deploy (A20.5) at the moment of Transfer. A Good Order ENEMY HS/crew with a prisoner will attempt to exit off the EBE. The player should move such a HS/crew toward the EBE taking the safest route (player's discretion) to insure the exit of the units. Use Assault Movement if moving into a Location in a FRIENDLY unit's range and LOS, or Double Time if no such Location will be entered in that MPh. ENEMY Guards always use the APh to continue progress towards/off the EBE.



6.304 *IN FLAME LOCATION:* A Good Order ENEMY unit in a Flame Location receives an Automatic Move Command {A4}.

6.305 *HUMAN WAVE:* ENEMY Infantry in a Human Wave receive an Automatic Move Command (4.321, 4.323-.33).



6.306 *ENEMY FT UNIT:* A Good Order ENEMY unit armed with a FT (even if vehicular-mounted) without a Target automatically receives a Move Command until it has a Target within the FT's (long) range. Such an Infantry unit with a FT SW uses Assault Movement into best cover when entering a Location in LOS and range of a FRIENDLY unit/its-possessed-functioning-Weapon, otherwise it rolls for a Move Command {A4b}.

A Good Order ENEMY unit armed with a functioning FT that has a Target for such automatically receives a Fire Command with the following priorities:

Priority List: Target in FT's normal range; Target in VPO Location; Location with most Known Infantry Targets; easiest-to-kill vehicular Target.

6.307 *OVERSTACKED LOCATION:* Use a Random dr (among all Good Order Overstacked units [EXC: MMC possessing a functioning and assembled HW]) to determine the unit(s) that must leave the Location in the next ENEMY MPh {A4a-b} or APh (whichever occurs first) in order to alleviate the Overstacked situation.



6.308 *VEHICLE IN MELEE:* A Good Order Mobile ENEMY vehicle in a Melee Location automatically receives a Move Command {A4c}.



6.309 *MOTION VEHICLE:* Each Good Order ENEMY vehicle/platoon in Motion automatically receives a Move Command {A4c} [EXC: if Panicked, in which case each such vehicle expends a MP to stop as its first (and only) Action of the MPh].



6.310 *GUN/VEHICULAR CREW:* A Good Order ENEMY crew not currently possessing a HW will move/advance to Recover any unpossessed Gun providing one exists within six hexes of that crew's hex. If ≥ one Gun is eligible the nearest functioning ENEMY one takes priority; otherwise, the crew should attempt to Recover any unpossessed HW (ENEMY takes priority over FRIENDLY). [EXC: An ENEMY *vehicular* crew will always attempt to re-man any Abandoned ENEMY vehicle within six hexes; player's choice as to which if ≥ one such vehicle within range.]

6.311 *SELF PRESERVATION:* A Good Order, armed and Activated ENEMY unit(s) has an automatic Fire Command {A2} at an ADJACENT or same-Location Target [EXC: ADJACENT Target is in Melee, in which case the firer rolls for Actions normally]. If ≥ two Targets are available use the following Priority List to determine the Target. Use Spraying Fire vs Point-Blank Targets, if possible.

Priority List: Good Order Target; Acquired Target of the firer; Location with the most Known Targets (in US#); Location with the most Targets in-lowest-TEM/easiest-TH; Target in VPO Location; Location with the most Known Target SMC; Location with the most FRIENDLY-possessed Weapons.

6.312 *IMPROVED POSITIONS:* A Good Order Activated ENEMY Infantry unit in an IP with a Target automatically has a Fire Command as its Action. If no Target exists, such a unit in Hold Attitude does nothing; if in Advance Attitude the unit rolls for an Action normally {A2a}.

6.3121 *ENTERING IP:* If an Activated ENEMY unit is in the same Location as an IP, but not currently receiving its protective TEM, the unit uses Assault Movement (or advance) to enter the IP's protective TEM providing its stacking capacity is not exceeded and a Target will be available. Otherwise, the unit performs other Actions normally.



6.313 *HEAVY WEAPONS:* In any fire phase in which an ENEMY unit possessing a HW is eligible to fire the unit will either:

- assemble the HW if it is currently dm and a Target is available, or
- fire a functioning HW at a Target, or
- if neither of the above apply the unit performs Actions normally for that Player Turn, as determined by its previous Action DR.

6.3131 *RESTRICTED TERRAIN:* An ENEMY unit possessing a HW will not enter a Location from which that HW is prohibited from firing (e.g., MTR in a building/bunker/Crest-status Location).



6.314 *ACQUIRED TARGET:* A non-Panicked ENEMY unit possessing a Weapon with an Acquired Target (whether a FRIENDLY unit or a FRIENDLY-occupied Location/hex) automatically receives a Fire Command to fire at its Acquired Target [EXC: 6.3141-.3142]. If such a Target becomes/is eliminated/Shocked the Weapon is assigned a new Target (8.2). A Coaxial MG is restricted to firing at the Target acquired by the vehicle's MA (if any) unless it has a Target with a net IFT DRM of ≤ –2.

6.3141 *VEHICULAR-MOUNTED ORDNANCE:* An armed ENEMY vehicle still has an Action DR performed for it in its Player Turn but, if instructed to Fire, an Acquired Target takes priority over all but a same-Location Target [EXC: 6.3142].

6.3142 *VEHICULAR/GUN TARGET:* A Good Order FRIENDLY armed-vehicular Target takes priority over an already-Acquired non-vehicular (or non-armed vehicular) Target if such *is an eligible Target* (considering the Target's armor and its current TCA/VCA) for that ENEMY firer. If no such vehicular Target exists the Ordnance Weapon attacks an Infantry Target with the following priorities:

Priority List: Infantry possessing functioning Gun with highest TK#; Infantry possessing (inherent) in-range LATW; Acquired Infantry Target; Target in VPO Location; otherwise roll to determine a Target {A3d}.

6.31433 *TRACKING:* A Good Order ENEMY unit will "track" (C6.51) a Target it has acquired if that Target enters a new Location in the tracker's LOS [EXC: if ≥ two Acquired Targets exist in a Location the ENEMY unit "tracks" the target with the largest US#; if ≥ two such units exist, use a Random dr to determine the unit "tracked" when the first such unit exits the Location].

6.315 *RECOVERY/ENTRY:* A moving Good Order non-*SASL*-Human-Wave ENEMY Infantry unit will attempt to Recover an unpossessed, same-Location Weapon as per 7.3, MF permitting. An ENEMY MMC (crew if possible) in an abandoned vehicle's Location attempts to re-enter such a vehicle (D5.42). See also 6.310.



6.316 *INFANTRY SMOKE GRENADES:* If a Good Order ENEMY MMC with a SMOKE Placement Exponent (A24.1) is ordered by a Move Command to enter an OG Location in LOS and range of an armed FRIENDLY unit where FFMO would apply, it should attempt to place Smoke Grenades to cover its movement into the Location (even if this would negate the use of Assault Movement). The player should use his discretion as to which adjacent Location such SMOKE should be placed. See also 5.74.



6.317 *ENEMY LEADER ACTIONS:* A Good Order ENEMY leader (even if heroic/Human-Waving) that is not currently in a Location with a broken ENEMY unit with no Self Rally capability ("Self Rally capability", in this case, being defined as having a boxed broken morale or being in the same Location as a non-Disrupted ENEMY leader) will use his MPh/APh (as necessary) to move-closer-to/enter a Location containing such a broken ENEMY unit, providing the broken unit is within five hexes of the leader's current Location [EXC: the leader does not move if such a broken unit will potentially enter his Location in the next RtPh, or if another ENEMY leader has already entered, or is already moving toward, that broken unit].

6.3171 *DIRECTION:* The ENEMY leader should take the safest route available to reach his destination (as per 6.317); it is largely up to the player to determine this. Double Time should be used (if available) if it will allow the leader to reach the Location by the end of the current (ENEMY) Player Turn's APh, otherwise use Assault Movement or non-Double-Time-movement, as necessary. If his destination is an ADJACENT Location the leader enters it in the APh (thus allowing him to possibly direct fire in the interim).

6.3172 If ≥ two such Locations exist use the following Priority List to determine the Location the leader will attempt to reach.

Priority List: in the leader's LOS; within the same building as the leader; closest Location (in MF); Location with the most (in US#) broken non-Self-Rallyable ENEMY units; Location that is out of all FRIENDLY LOS or beyond range of all FRIENDLY non-malfunctioned weapons; Location with the highest in-hex TEM.

6.3173 *APh:* Even if a Good Order ENEMY leader is already in a Location with such a broken ENEMY unit (6.317), he will use his APh to enter an Accessible Location if that Location has more (in US#) such broken units than his present Location.

6.3174 *FIRE DIRECTION:* If there is no eligible broken ENEMY unit for the leader to move toward, use his fire-direction capabilities (A7.53-.531; A7.9) for any same-Location ENEMY units receiving a Fire Command. If this is not applicable, a leader with a "–" modifier will attempt to move toward the closest Location (using 6.3171) in which his fire-direction capabilities can be utilized. See also 8.3.

6.3175 *NO ACTIONS:* If none of the preceding Automatic Actions are currently applicable, a leader does nothing until some such Action becomes mandatory [EXC: such a leader in Advance Attitude remains stacked with any same-Location ENEMY Infantry MMC (if ENEMY Infantry units "split up", the leader should remain stacked with the best-class unit possessing a HW, or possessing any SW). Otherwise he automatically receives Move Command 6 of Table A4b].

7. RPh

7.1 *ENEMY SELF RALLY:* During the ENEMY RPh the player should attempt to Self Rally the *two* ENEMY MMC without a boxed broken morale that have the best chances of rallying. If ≥ three such exist use the following Priority List.

Priority List: in VPO Location; closest (in hexes) to a FRIENDLY-Controlled VPO Location; possessing any HW; closest to the FBE; Highest US#.



7.2 *DM REMOVAL:* A broken ENEMY unit with a DM marker that may be optionally removed (A10.62) has the marker left on in order to allow the unit to continue its rout, providing a rally bonus terrain Location can be entered by that unit in the next RtPh. Where necessary, the player should use his judgement to determine what is in the best interest of the ENEMY unit.

7.3 *RECOVERY:* A Good Order Activated ENEMY Infantry MMC will attempt to Recover a same-Location unpossessed ENEMY SW [EXC: 4.37]. Such a unit will only attempt to Recover an ENEMY Gun if it is functioning and would have a Target available from that Location [EXC: an ENEMY crew will always attempt to Recover an ENEMY Gun]. Such a unit will only attempt to Recover a FRIENDLY SW/Gun if that Weapon is functioning *and* (if a Gun) a Target will be available.

If > one such unit is available for Recovery, the best-class/smallest-US# unit should attempt Recovery; otherwise determine by Random dr. If > one such SW is available, attempt to Recover the SW with the greatest FP.

7.4 *REPAIR:* A Good Order Activated ENEMY unit possessing a malfunctioned ENEMY Weapon will attempt to repair that Weapon whenever possible.

7.5 *RECOMBINING:* If an ENEMY leader has no other RPh activity he will Recombine any two same-Location eligible HS (A1.32), with the two HS able to form the best-Class squad taking priority.

8. ENEMY ATTACKS

8.1 *FIRE COMMAND:* Most ENEMY attacks are determined by the Fire Command randomly assigned to the ENEMY unit(s) eligible to fire [EXC: automatic Fire Command (6.306; 6.311; 6.314-.3142); ENEMY First Fire (8.61-.612); ENEMY artillery strike (8.7); ENEMY sniper attack (8.8)]. Only an unbroken Activated ENEMY unit with a Target may be given a Fire Command. When such a unit is to have its Fire Command determined (as per 6.23) the player makes a DR on the applicable ENEMY Attack Table {A3a-d} (8.11) to determine the Fire Command. Once determined, that unit's Fire Command must be performed before another unit's Action occurs [EXC: FG possible; 8.5]. See also 8.13.

8.11 *ENEMY ATTACK TABLES:* The specific ENEMY Attack Table {A3a-d} used to determine an ENEMY unit's Fire Command depends on the unit/Weapon firing and the available Target(s). The title of each ENEMY Attack Table indicates the type of attack it is used for; i.e., Ordnance firing at a vehicular Target uses table A3c; IFT attacks vs Infantry/PRC use table A3a, etc.

8.12 *PRIORITY LIST:* Each Fire Command is given in the form of a Priority List in order to determine the Target(s) when > one exists. The player consults the Fire Command's Priority List to select the Target. If the Target is still undetermined by the end of the Priority List the player should make a Random dr (from among the Targets the Fire Command has narrowed it down to thus far) to determine the Target.

SAMPLE FIRE COMMAND: The following is a Fire Command (#10) from the "IFT ATTACKS vs INFANTRY/PRC" {A3a} table:

10 Fire Inherent FP at closest Known Target; most Known Targets; least TEM; most Good Order Targets; most Weapons; most Target SMC. If no Known Target exists fire at concealed Target with same priorities.

SW: Fire SW at Target in least TEM; closest; Location with the most Targets; most Target SMC. Combine with Inherent FP if necessary.

EX: It is the ENEMY PFPh and an ENEMY squad with a functioning LMG has been assigned the above Fire Command. It is instructed to fire its "Inherent FP at closest Known Target". If there are ≥ two such Target Locations the player then reads the second listing which, in this case, instructs the unit to fire at the Location with "most Known Targets". If ≥ two such Locations still exist the player proceeds to the next listing (in this case the Location with the "least TEM"), and so on until a Target Location for the unit's Inherent FP attack is determined. Since this Fire Command has a separate "SW" listing (and since the firing unit in this case possesses a functioning SW) the player uses the SW Priority List to determine the LMG's Target. In this case, the LMG is to fire at the "Target in least TEM"; if > one such Target exists the SW fires at the closest Target in the least TEM; if > one such equidistant Target in least TEM exists the LMG fires at the Location (from among the previously determined ones) that contains the most Targets, etc.

8.13 *ROF:* An ENEMY Weapon maintaining its ROF continues attacking its Target until that Target loses its Good Order status (eliminated if berserk), at which point a new Target is determined using a new Fire Command. See also 5.3 and 8.61.

8.2 *ORDNANCE:* An ENEMY Ordnance Weapon attacks a vehicular Target {A3c} if such is available [EXC: Mandatory Attack (5.3); a mortar of ≤ 60mm attacks an Infantry Target {A3a}]. Use IFE, if available, vs an Infantry Target. See also 6.314-.3143 for Automatic Actions concerning Acquired/Vehicular/Gun Targets, and 8.61-.612 for First Fire guidelines.



8.21 *ENEMY INTENSIVE FIRE:* An ENEMY unit possessing an Ordnance Weapon will, if possible, Intensive Fire that Weapon only vs an ADJACENT Target, and then only if that Target is an unbroken MMC (if Infantry) or (if vehicular) unshocked and with functioning armament capable of destroying the ENEMY firer with a non-CH in its current CA. Use the following Priority List if ≥ two such Targets exist.

Priority List: armed vehicle; Acquired; easiest To Hit; easiest To Kill; Location with most Targets (in US#).



8.22 *ORDNANCE SW:* ENEMY Ordnance SW (e.g., ATR, Light Mortar, PIAT, Bazooka, etc.) firing separately from its possessor's Inherent FP should fire before such Inherent FP (in order to avoid the SW from being prohibited from firing due to Cowering).

8.23 *ENEMY PANZERFAUST:* A Good Order ENEMY unit with Inherent PF capability will attempt to fire such (C13.31-.34) at a FRIENDLY AFV Target within range for that type and year of PF, provided the Final To Hit roll needed is ≥ 4. The player need not keep track (C13.31) of *ENEMY* PF usage (as the number of ENEMY squads is not known).

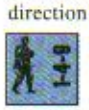


8.24 *DELIBERATE IMMOBILIZATION ATTEMPT:* An ENEMY Ordnance Weapon will attempt Deliberate Immobilization vs a FRIENDLY AFV (if qualified; C5.71) providing that AFV can only be affected by a Final TK DR of ≤ 4.

8.25 *SPECIAL AMMUNITION:* ENEMY use of special ammo types (APCR/APDS/HEAT/SMOKE), Canister, Smoke Dispensers, and AP/HE Limited Stowage ammo types (C8.8) is best left to the player's discretion. Use such special ammo/capabilities to the best advantage of the ENEMY. Such ammo depletes normally (C8.).



8.3 *LEADER DIRECTION:* The best Good Order ENEMY leader (even if heroic) in the same Location as a firing ENEMY unit(s) will direct that fire if he has no other Automatic Action to perform (6.317) [EXC: Leader direction is not used if the Final *leader* direction DRM would be positive; e.g., due to the cumulative effects of wound/heroic/personal-DRM]. Leader direction of a non-Indirect-fire SW (with the SW with the highest ROF taking priority) takes precedence over direction of an Indirect-fire SW.



8.4 *HEROES:* An ENEMY hero not stacked with a Good Order ENEMY MMC Infantry unit will perform Actions as if he were an ENEMY MMC. If he is in the same Location as ≥ one same-side Infantry MMC capable of utilizing his FP/Heroic-DRM he will perform Actions with that unit(s). If with a stack of moving Infantry the hero will move with the largest (in US#); best-class; with HW; with other (longest range) SW. When possible, an ENEMY hero should attempt to stack with Good Order ENEMY MMC.

8.5 *ENEMY FIRE GROUPS:* ENEMY units fire as a FG as follows.

8.51 *PFPh:* Each Good Order ENEMY Infantry unit *in the same Location* that has a Fire Action must fire in its PFPh as a FG if possible [EXC: if Ordnance]. The player makes one DR on the applicable ENEMY Attack Table [A3a] to determine the Target. If all FP of the FG cannot be concentrated vs that Target (e.g., due to range limitations) any unused FP should be used vs another Target(s), using the Priority List of that same Fire Command. Otherwise reroll for a new Fire Command for any still unused FP.

8.52 *AFPh:* Multi-Location FG should be formed in the ENEMY AFPh so to maximize FP. Make a DR [A3] for each such FG to determine the Target (no Action DR is neccessary as such was made for the unit[s] during the PFPh). If necessary, use your discretion to limit the size of the FG or to determine its Target. See 4.36 for Human Wave FG.

8.53 *DEFENSIVE FIRE:* Only same-Location FG are allowed during any type of ENEMY defensive fire [EXC: Human Wave FG; 4.36]. Such a FG fires as per 8.51.

8.6 *ENEMY DEFENSIVE FIRE:* ENEMY units conduct Defensive (First) Fire as follows.

8.61 *FIRST FIRE VS NON-VEHICULAR TARGETS:* Each Good Order Activated ENEMY unit/Weapon conducts defensive fire at a moving non-vehicular FRIENDLY Target during the FRIENDLY MPh if the movement of such a Target would cause a hypothetical S? in the Activated unit's Location to be checked for Activation (5.1) (i.e., apply the AC drm of the ENEMY's table x1 as if the Activated ENEMY unit were still a S?; no AC dr is required, as the ENEMY unit is already Activated) [EXC: 8.611]. The ENEMY unit must First-/Subsequent-First-/Final-Protective Fire (as appropriate) at the moving *non-vehicular* Target if an AC dr would otherwise be necessary (even if 6.311 applies) [EXC: 8.613; also, if the ENEMY unit is a $^{5}/_{8}$" Ordnance with an Acquired Target that would have to change its CA]. ENEMY leadership DRM, if any, apply. An Action DR [A2] must still be made for each firing unit(s) (6.12-.2) [EXC: 5.3]; however, barring Panic, that unit(s) will conduct immediate Defensive Fire at the moving Target.

If a S? is also eligible for Activation (3.31b/e), the AC for such is made {x1} only *after* the fire resolution of any/all already-Activated unit(s) eligible to fire, and then only if the Target is still eligible (as per 5.31).

If the moving Target(s) expended ≥ 2 MF/MP in the Location, subsequent attacks are conducted by that/other-eligible unit(s) until the Target loses its Good Order status (eliminated if berserk) or such attacks are no longer possible.

8.611 *LONG RANGE HW FIRST FIRE:* A Good Order ENEMY unit possessing a functioning (and assembled) HW must First/Subsequent-First Fire that Weapon at a Known moving Target that has a net IFT/TH DRM of ≤ 0 within the Weapon's (long) range.

8.612 *FIRST FIRE VS VEHICLE:* During First Fire an ENEMY Ordnance Weapon should fire, at the player's discretion, before a moving vehicular Target has a chance to leave the Weapon's LOS; otherwise it should wait for the best possible shot (depending on range/Target-facing). See also 8.2-.25. ENEMY Infantry will attempt (CC) Reaction Fire or Street Fighting whenever possible.

8.613 *FINAL PROTECTIVE FIRE:* An ENEMY unit eligible for FPF vs an ADJACENT Target uses such only if it passes a NTC, using the Target's TEM and any FFMO/FFNAM modifiers as TC DRM [EXC: if Panicked; 6.212].

EX: A FRIENDLY non-berserk squad uses non-Assault Movement to enter a wooden building Location ADJACENT to an ENEMY squad marked with CX and First-Fire markers. The ENEMY squad must conduct Final Fire at the FRIENDLY squad (8.61). If this attack fails to cause the FRIENDLY unit to lose its Good Order status the ENEMY squad then takes a TC in order to make a FPF attack (since the Target used two MF to enter the ADJACENT building Location), with a +1 DRM to its TC (+2 building TEM; −1 FFNAM; the +1 for CX does not apply as it is not a TEM). Failure of the FPF TC has no effect other than to disallow the FPF attack by that ENEMY unit vs that specific Target.

8.62 *FINAL FIRE:* A Good Order Activated ENEMY unit eligible to Final Fire will do so if it has a Target. Make a DR on the applicable ENEMY Attack Table [A3] to determine the Final Fire Target (or performs an Automatic Action, if applicable; 6.3).

8.7 *ENEMY ARTILLERY STRIKE:* The standard (C1.) OBA rules are generally NA to ENEMY OBA. Instead, use the following procedure whenever a RE or Mission MSR calls for an ENEMY Artillery Strike.

8.71 *PLACEMENT:* The number of ENEMY FFEs received is as specified by the RE or MSR (using a specified Random Number table [A6]). Place a FFE:1 in the hex containing the FRIENDLY stack/unit *with a minimum US# of three* that is closest to the EBE [EXC: on a subsequent dr of ≥ 4 the FFE:1 is instead placed in the hex containing a FRIENDLY stack possessing a non-malfunctioned HW that has fired during this or the preceding Game Turn]. If > one such hex qualifies place the FFE as per the following:

Priority List: VPO Location; in the hex containing the stack with most FRIENDLY units; on the stack/unit with the most FRIENDLY units within one hex of that stack/unit; on the stack/unit with the most FRIENDLY units within two hexes of that stack/unit, etc.

If > one FFE is received on the same turn, place each subsequent FFE on the next applicable stack (respectively) (e.g., if three ENEMY FFEs are received on the same Player Turn the third FFE placed would be on the FRIENDLY stack third-closest to the EBE with a minimum US# of three). After initial placement of each FFE, perform a Correction DR for each (identical to the C1.31 "Direction/Extent of Error DR"); no DRM apply.

8.711 *INELIGIBLE UNITS:* A FRIENDLY subterranean/aerial/HIP unit is never considered for ENEMY OBA FFE placement or continuation.

8.72 *TYPE & RESOLUTION:* After each FFE has been placed (8.71), its strength (FP) and type (ART, MTR or RCT) is determined by a DR on the ENEMY nationality's Chapter H "OBA Availability Chart" (using the correct column depending on the date). Multiple FFEs received on the same turn are always the same type. Resolve each FFE in the first eligible Fire Phase (usually the ENEMY PFPh).

8.721 *SMOKE FFE:* An ENEMY FFE:1 is placed as a SMOKE FFE if it has no FRIENDLY unit(s) in its Blast Area, providing the nationality and mm-size of the FFE permit *and* if the Prevailing Attitude is Advance. Additionally, the player may opt to have an ENEMY FFE:1 placed as a WP FFE (nationality and mm-size permitting) even with ENEMY units in its Blast Area.

8.73 *AUTOMATIC CANCELLATION:* An ENEMY FFE [EXC: Creeping Barrage] is automatically cancelled before resolution (even if just corrected; 8.74) if the US# sum of ENEMY units within its Blast Area is > the US# sum of FRIENDLY units.

8.74 *AUTOMATIC RANDOM CORRECTION: Unless* the ENEMY FFE currently has ≥ one FRIENDLY unit and no ENEMY unit(s) in its Blast Area, the FFE is automatically subject to correction before its next resolution [EXC: if RCT OBA it is removed instead]. *Before resolving* an FFE:2, or an FFE:1 that has been continued, the player must make a Random Correction DR (exactly as if placing an off-target SR; C1.31) to determine its new Blast Area. No DRM/LOS-restrictions apply.

8.75 *FFE:C CONTINUATION:* Make a dr for each non-RCT FFE:C that is eligible for continuation. On a Final continuation dr of ≤ two replace the FFE:C with an FFE:1 and, if necessary, perform the Automatic Random Correction procedure (8.74). If the Final continuation dr is ≥ three the FFE is immediately cancelled. There is a −1 drm for each non-hidden FRIENDLY unit in the FFE's Blast Area.

8.8 *ENEMY SNIPER ATTACK:* When > one Target Location is eligible for an ENEMY sniper attack (as per A14.21, last sentence), use the following Priority List to determine the Location attacked.

Priority List: Target in VPO Location; Location with the best Known FRIENDLY leader; with FRIENDLY CE AFV; highest FRIENDLY stack (excluding "system" markers); with the most Known FRIENDLY-possessed, functioning HW; with the most Known FRIENDLY leaders; with most Known SW.

8.81 *ENEMY SNIPER CHECK:* Unless the player considers it useless, an eligible ENEMY unit(s) will Check for FRIENDLY Sniper (A14.4) (even if the unit(s) is marked to Move but not yet moved).

8.9 *ENEMY AIR SUPPORT:* An ENEMY RE may grant Air Support to the ENEMY. The number, type and entry of such is as per the RE instructions. An ENEMY attack aircraft unit automatically has a Fire Action (6.2) during the FRIENDLY Player Turn when it is eligible for Actions; an Action DR [A2] is not made and thus it cannot Panic.

8.91 *FRIENDLY MPh ATTACK:* An ENEMY aircraft attacks (as First Fire) a moving Infantry Target using non-Assault Movement in an OG Location [EXC: if ≥ one Known vehicular Target is onboard, the aircraft attacks such a vehicle that it has best chance of destroying instead of attacking moving Infantry]. Only one ENEMY air attack is allowed vs each such Infantry unit/stack per MPh.

8.92 *FRIENDLY DFPh ATTACK:* Each ENEMY aircraft still able to attack

in the (FRIENDLY Player Turn's) DFPh will do so using the following Priority List. If ≥ two Targets exist under the same Priority the Target easiest to conduct a successful STC on is selected. Otherwise choose the hex with the most Known Target units in US#.

Priority List: Target AFV with the highest AF; Target armed vehicle; Target vehicle; Known Target Gun; Known Target Infantry possessing a HW; Target in OG Location.

8.93 *STRAFING VS POINT ATTACKS:* The player should select the type of attack (Strafing Run or Point Attack; E7.401-.402) that can potentially harm the most FRIENDLY units. If unable to decide make a Random dr.

8.94 *FRIENDLY AIRCRAFT'S MISTAKEN ATTACK:* If a *FRIENDLY* aircraft must make a Mistaken Attack (E7.32) use the same guidelines as given in 8.91-.93.

8.95 *RECALL:* An ENEMY aircraft without bombs is automatically Recalled (E7.223) if its MG armament malfunctions.

9. ENEMY MOVEMENT

9.1 *ORDER OF MOVEMENT:* Each ENEMY berserk unit (if any; 6.301) moves before any other ENEMY unit, then Human Wave units (4.321). Thereafter, carry out Move Commands, and move Advance Attitude S? (3.321), in the same order as given in 6.1 (including each on or offboard unit). If a *Location* contains multiple ENEMY units that must have separate Move Actions performed use a Random dr to determine which moves first (e.g., a leader/vehicle moving separately from same-Location MMC). If movement for a vehicle is not possible consult footnote 2 [A2] for an alternate Action.

MOVE

9.2 *MOVE COMMAND:* In *SASL*, the movement of an *Activated* non-Immobile ENEMY unit is determined by the Move Command assigned to it [EXC: if an Automatic (Move) Action applies (e.g., 6.301-.309, 6.317)]. Only a Good Order Activated non-Immobile ENEMY unit may be given a Move Command and only during the ENEMY MPh when that unit is ready to move. All such *Infantry* units in Advance Attitude *use the same Move Command* [A4b] (9.21). If in Hold Attitude, all Infantry in odd-numbered hexes have a Move Command [A4a] (9.21) determined for them, and all Infantry in even-numbered hexes have another Move Command [A4a] (9.21) DR made for them (the same Move Command could possibly be used for all). Regardless of Attitude, each ENEMY non-Immobile *vehicle* has a Move Command [A4] (9.21) determined for it individually [EXC: all vehicles of the same AFV platoon (D14.) use the same Move Command]. ENEMY Infantry should move in stacks at player's discretion (usually if such movement is relatively free from FRIENDLY Defensive Fire). Remove the Move counter from each unit when its movement is completed.

When a Move Command seems ambigious, given the moving ENEMY unit and its map position, use your discretion in moving the unit. Attempt to do what is in the best interest of the moving unit considering the Move Command received. When a choice exists, the unit should *usually* take the safest route available, rather than the most direct. An Infantry unit that is unable to perform its Move Command is instead marked with an Opportunity Fire marker.

Each ENEMY Infantry Movement Table (A4a-b) has a "hex rosette" specific to it (found in the upper portion of each table) used to determine the hex entered by a moving unit. Throughout the play of a Mission the player will use either the right *or* the left (never both) rosette pictured. Use the rosette whose hex configuration aligns with the mapboard's hexgrid.

EX: In the 9.23 illustration north is to the left. In *SASL* the FBE is always considered the west edge, which the player should situate closest to him (see FBE definition; S.1); the illustration reflects this by having the west edge aligned toward the bottom, or "closest" to the player. With the map aligned thusly, the player would then use the hex rosette on the far right of each Infantry Movement Table (the one *not* "X'ed-out" in the inset above the 9.23 illustration). Consider the unit to be moved as being in the hex with the black square; hexes eligible for the unit to enter from its current Location are illustrated with a series of numbers in them which can be used with a dr to determine a unit's move randomly (see 9.23-.14).

9.21 *ENEMY MOVEMENT TABLES:* The specific ENEMY Movement Table [A4a-c] used to determine an ENEMY unit's Move Command depends on the type of unit moving and its current Attitude. The title of each ENEMY Movement Table indicates the type of unit that uses it; e.g., "Hold Attitude ENEMY Infantry Movement Table" [A4a].

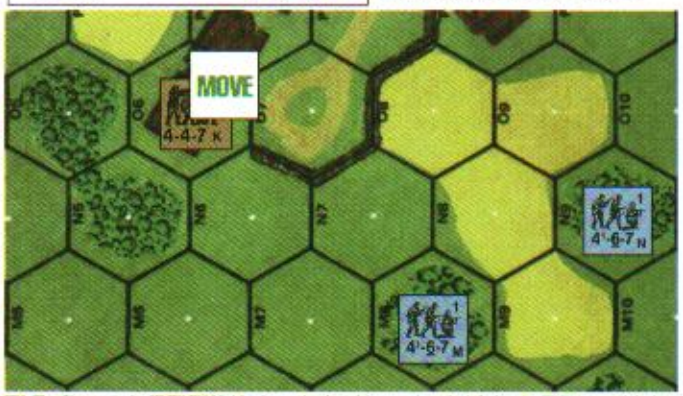
9.22 *PRIORITY LIST:* Most Move Commands are given in the form of a Priority List which provides some "choices" for the unit's move. The player consults that Priority List and selects the first Move Command priority that can be fulfilled. As usual, subsequent instructions of the Priority List can be used to help further define the Move Command, as necessary.

SAMPLE MOVE COMMAND: The following is Move Command (#5) from "A4a HOLD ATTITUDE ENEMY Infantry Movement Table":

5 Assault Move into Location with TEM > TEM of current Location; into Location with any positive inherent/hexside TEM with Target available therefrom; into any Location with positive TEM; random direction.



A4a HOLD ATTITUDE
ENEMY Infantry Movement Table
Random Move Hex Rosettes



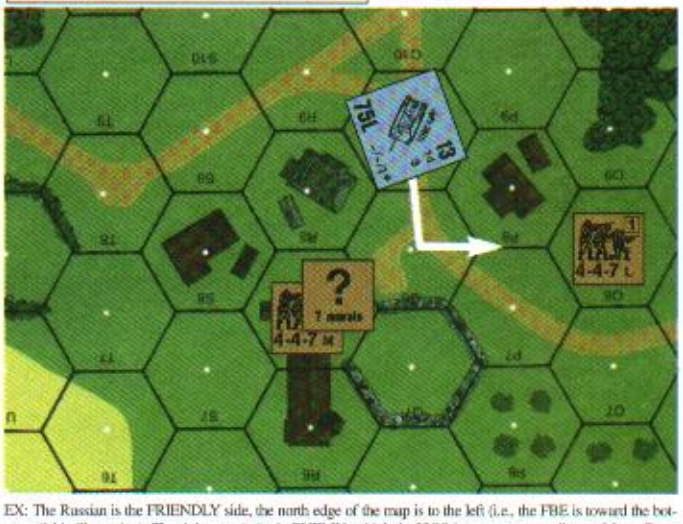
EX: The German is the FRIENDLY side, the north edge of the map is to the left (i.e., the FBE is toward the bottom of this illustration). The Hold Attitude ENEMY squad at ground level in the 4O6 wooden building has just been given Move Command 5 (DR of "5" using Table A4a; see above). Since it cannot Assault Move into a Location that has TEM *greater* than the TEM of its current Location, the next part of that Move Command's Priority List is checked. This instructs the unit to Assault Move into a "Location with any positive inherent/hexside TEM with Target available therefrom". Using these instructions the player notes that the unit could Assault Move either behind the wall into 4O7, into the woods in 4N5, *or* up into the first level of its current hex—as from all of these Locations the Russian squad would have a LOS to the FRIENDLY Targets in 4M8 and 4N9. The player decides to move the 4-4-7 into the first level of 4O6 as it has better inherent TEM than the woods, and provides an unhindered view over the N8 Grain field.

SAMPLE MOVE COMMAND: The following is Move Command (# ≤4) from "A4c ALL ATTITUDES ENEMY Vehicle Movement Table":

≤4 If on road and no Known Target exists move along road toward FBE. Stop (ESB if necessary) when a Known Target exists; otherwise remain CE and in Motion. If on road and Known Target exists see Move Command 5-6. If not on road see Move Command 5-6..



A4c ALL ATTITUDES
ENEMY Vehicle Movement Table
Random Move Hex Rosettes



EX: The Russian is the FRIENDLY side, the north edge of the map is to the left (i.e., the FBE is toward the bottom of this illustration). The Advance Attitude ENEMY vehicle in 33Q9 is to move according to Move Command "≤4" of the A4c ENEMY Vehicle Movement Table. Since the AFV in Q9 *is* on a road and no Known Target exists (FRIENDLY squad M, in LOS, is not a *Known* Target), it enters Q8 along the road (since it is not already CE it does not have to CE now). When it enters Q8, however, a Known Target *will* exist for it—the FRIENDLY squad in O8—and the vehicle now Stops. However, before expending a final MP to stop, the AFV changes its VCA to enclose hexes P7/P8, thus bringing its MA to bear on its only Known Target (9.34).

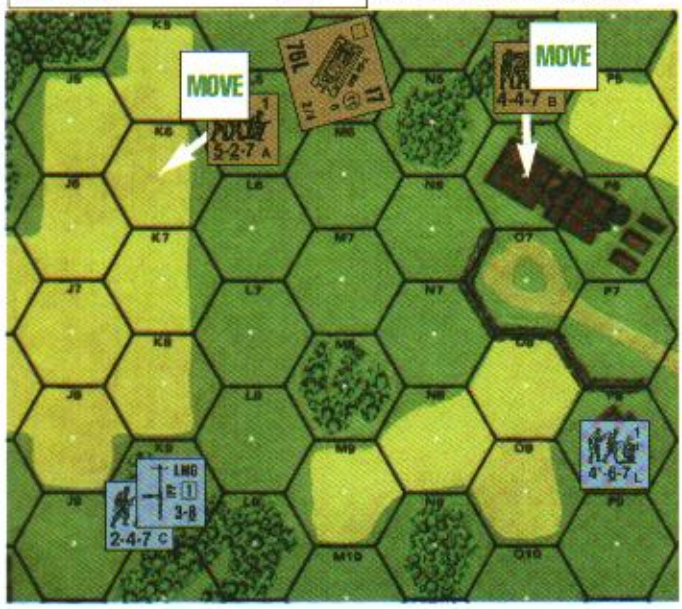
9.23 *RAS (Roll At Start):* Make a dr at the start of the Activated unit's MPh to determine its movement direction. Consult the appropriate hex rosette (printed on each Infantry Movement Table), depending on the Mission's board configuration. The unit moves along the determined Hex Grain throughout the MPh until either Pinned, no longer in Good Order, instructed to stop by its Move Command or further movement in the specified direction is no longer possible (e.g., due to lack of MF/MP, Prohibited Location (9.26), board edge (9.4), or FRIENDLY unit in the next Location to be entered).

SAMPLE "RAS" MOVE COMMAND: The following is Move Command (#10) from "A4b: ADVANCE ATTITUDE ENEMY Infantry Movement Table":

10 If Known Target exists Assault Move into Location with best TEM; with most Targets available therefrom. If no Known Target exists move full MF, RAS; stop upon entering building Location if Known Target exists therefrom.



A4b ADVANCE ATTITUDE
ENEMY Infantry Movement Table
Random Move Hex Rosettes

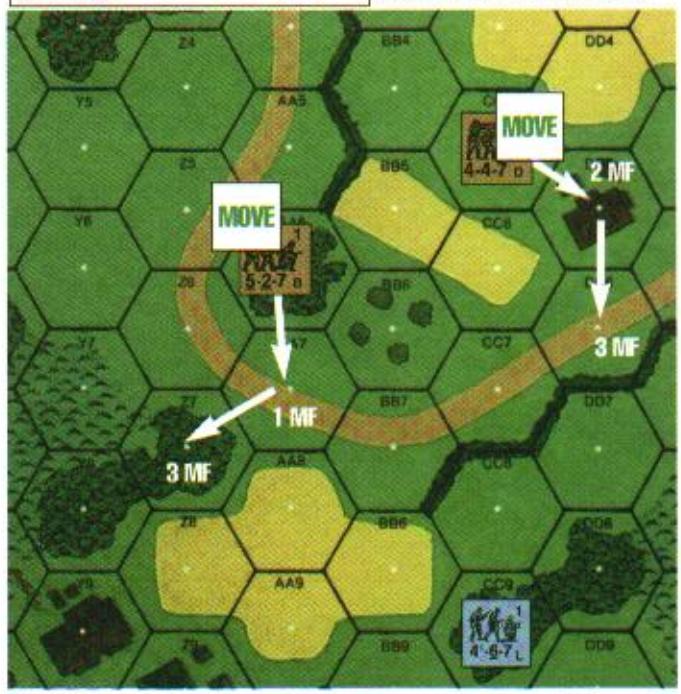


EX: The German is the FRIENDLY side, the north edge of the map is to the left (i.e., the FBE is toward the bottom of this illustration), hence the hex rosette on the right is used as its configuration aligns with the map's hexgrid. The Advance Attitude ENEMY squads in 4L5 and 4O5 have move Actions assigned [A2a], and have just been given Move Command 10 [A4b] (since they are both in Advance Attitude, they both use the same Move Command; 9.2). The 5-2-7 moves first (9.1; 6.1). Since ≥ one Known Target exists, the 5-2-7 must "Assault Move into Location with best TEM". Being in Advance Attitude, the only eligible Locations are K6, L6 and M6, all of which have the same TEM of 0. The 5-2-7 cannot enter M5 and receive the +1 TEM of the AFV as that hex is not enterable by an Advance Attitude Infantry unit. Therefore, the 5-2-7 Assault Moves into the Grain in K6; there's no −1 for moving in OG, and it's toward the FBE. The player declines any First Fire at the moving unit, so it is now time for the 4-4-7's move. Since the 4-4-7 has no Known Target from its current Location, it must "move full MF, RAS; stop upon entering building Location if Known target exists therefrom.". First, the player makes a "RAS" dr to determine its general direction of movement. Consulting the hex rosette that matches the mapboard's hex configuration, a RAS dr of "4" has the 4-4-7 entering building Location O6. At this point the 4-4-7 stops moving since it is now in a building Location *and* has LOS to a Target (the FRIENDLY squad in P8). Note that even though the Russian 4-4-7 could have expended its "full MF" (as per its Move Command), it is considered to have used Assault Movement (6.221).

9.24 *REH (Roll Each Hex):* Make a Random dr to determine *each* hex entered by the unit as it is ready to enter the next Location [EXC: a unit may never reenter the Location just exited, nor a Prohibited Location (9.26); reroll for another hex]. Consult the appropriate random move hex rosette (printed on each Infantry Movement Table) depending on the Mission's board configuration. Continue to make a REH dr for the unit until it is either Pinned, no longer Good Order, or is instructed to stop by its Move Command or by the mapboard edge (9.4).



A4b ADVANCE ATTITUDE
ENEMY Infantry Movement Table
Random Move Hex Rosettes



EX: The German is the FRIENDLY side, the north edge of the map is to the left (i.e., the FBE is at the bottom of this illustration), hence the hex rosette on the right is used as its configuration aligns with the map's hexgrid. Grain is in season. The Advance Attitude ENEMY squads in 24AA6 and 24CC5 have Move Actions assigned [A2a], and have just been given Move Command 8 ("Move full MF, REH; stop upon entering a building Location if Target exists therefrom"; [A4b]). The 5-2-7 moves first (9.1; 6.1), and the player makes a "REH" dr of "2"; thus the Russian squad moves into AA7 (1 MF). The next move dr for the 5-2-7 is a "1", so it enters woods hex Z7 (3 MF expended), where it must end its MPh, as none of the other Locations eligible for entry (Y8, Z8 or AA8) cost ≤1 MF. The 4-4-7 in CC5 moves next. Its first "REH" dr is a "6"; thus it moves into the building in DD5. The player notes that even though the unit has entered a building, it has no Target from this vantage point, thus must continue moving. Its next move dr is a "3" and it moves into the road in DD6, having now expended 3 MF. Even though the Russian squad has only 1 MF remaining (it was not instructed to use Double Time movement), it could conceivably enter CC7 on a move dr of "1". Therefore the player makes another "REH" dr. Another "3" is rolled however, instructing the unit to enter hex DD7, but, as this would require the unit to expend > 4 MF, the 4-4-7 ends its MPh in DD6.

9.25 *MOVEMENT TOWARD VPO:* If a Move Command instructs an ENEMY unit to move/advance toward a VPO Location (regardless of Control) in a Mission that has no designated VPO Location(s) (or when all VPO are currently ENEMY-Controlled), the unit instead moves toward the nearest FRIENDLY unit as per the following:

Priority List: in LOS; not stacked with another FRIENDLY unit; in Good Order; closest.

9.251 *IN VPO LOCATION:* When an ENEMY unit *in* a VPO Location is given a Move Command instructing it to move toward a VPO Location it should move toward the closest (in MP) VPO Location, ignoring its own Location, as per the following:

Priority List: FRIENDLY Controlled; containing least amount of FRIENDLY units (in US#); in LOS; Location with highest Inherent TEM.

9.26 *PROHIBITED LOCATION:* An Activated ENEMY unit will not enter a Location that contains/is:

- a FFE blast area
- a Known Minefield (15.21) [EXC: if the Minefield is in/ADJACENT to a FRIENDLY-Controlled VPO];
- Overstacked (or would become such due to the unit's entry)
- ≥ 4 Residual/Fire-Lane FP (if Infantry) [EXC: if such FP is ADJACENT to a FRIENDLY-Controlled VPO];
- a Water Obstacle,
- Offboard [EXC: FBE; unless so directed by its MSR/RE instructions]; see also 9.4.

Instead, the unit should attempt to move around such a Location, taking the route affording the most cover (if Infantry or Cavalry) or through the least number of Bog Locations (if vehicular).

9.27 *CHANGING BUILDING LEVELS:* An ENEMY Infantry unit will use a (Inherent) stairwell to change its Location *within the same building hex* when further movement in its determined direction of movement is only possible by such a move.

9.28 *ENEMY IN DEPRESSION:* An ENEMY Infantry unit IN a Depression Location with a Move Command instructing it to use Assault Movement and/or instructing it to enter an Accessible Location with better TEM than its present Location will assume Crest status in its hex (if possible) if a Target would exist for it across such a Crest hexside.



9.3 *ENEMY VEHICLES:* The following rules concerning ENEMY vehicles (9.31-.37) are intended as a general guide for the player to assist in determining specific movement and fire options for ENEMY vehicles. Due to the complicated and varied nature of vehicular movement/fire options in *ASL*, here (perhaps more than anywhere else in *SASL*) the player may sometimes have to use his "best judgement" in carrying out a dictated action.[5]

9.31 *CE/BU:* A CE ENEMY vehicle will BU as soon as possible after it has a LOS to a Known Target within twelve hexes, or whenever it is within the normal range of a Known, fully-manned FRIENDLY-possessed MMG/HMG. Some vehicular Move Commands provide further instructions on when to BU or become CE. Otherwise, a player may always choose to BU/CE an ENEMY AFV if such an action seems in the vehicle's best interest.

9.32 *MAPBOARD ENTRY:* Each ENEMY vehicle entering the mapboard *due to RE* does so on the EBE road hex that has a contiguous path of connected road hexes toward the FBE. If ≥ two such road networks exist the vehicle follows the road with the most direct path (in number of MP; then number of hexes) to the FBE. If no such complete road network exists it enters on the road hex whose road network extends the farthest toward the FBE, and from there takes the path with the least number of bog/obstacle hexes toward that edge after leaving the road (possibly regaining another road later). On its turn of entry each *ENEMY* vehicle/platoon must attempt to use as many MP as possible without using ESB/becoming-Overstacked and is not subject to Panic. When > one vehicle is to enter at the same Location on the same turn, determine their order of entry randomly.

9.321 *ATTITUDE:* Each entering ENEMY vehicle maintains Advance Attitude until it (or a member of its platoon) has a Target, at which point it (the platoon) assumes the Prevailing Attitude.

9.33 *ENEMY PLATOON MOVEMENT:* Each ENEMY vehicle of the same type (only) entering on the same turn must do so using platoon movement (D14.2; regardless of the actual presence or absence of radio) and continue such movement until so released (9.331). When the lead vehicle of a moving ENEMY platoon ends an impulse with a Target in LOS it must stop (ESB if necessary). Each Remaining vehicle of the platoon must continue to expend MP (if such remain available), using the restrictions of platoon movement, in an attempt to bring ≥ one Target into its LOS [EXC: such a vehicle will not enter a Location already occupied by ≥ one Good Order ENEMY vehicle; it will only enter a Bog Location if that is its only choice]. The Delay MP expended by the stopped unit should be used for it to Bounding First Fire if possible.

9.331 *PLATOON RELAXATION:* Once an ENEMY vehicle platoon begins its MPh with ≥ one Target in its LOS the platoon movement restrictions for those vehicles are relaxed for the duration of the Mission [EXC: if normally required to use platoon movement due to being radioless, in which case such vehicles must continue to use platoon movement as long as possible].

9.332 *RADIOLESS VEHICLE:* An ENEMY Radioless AFV beginning its MPh not currently in platoon formation (i.e., not adjacent to another such ENEMY AFV) must still take a NTC (D14.23) in order to move by itself.

9.34 *CA DETERMINATION:* Upon stopping/ending-its-MPh an ENEMY vehicle will bring all possible functioning armament to bear on a Known Target(s), or on a Concealed Target(s) if no Known Target exists. MA/SA will always bear on a vehicular Target(s) (if present), with the nearest such Target with functioning armament capable of destroying that ENEMY vehicle with a non-CH receiving priority. MG should bear on any Target(s) available, using the following Priority List.

Priority List: closest Target possessing functioning in-range A-T Weapon; closest Location with most Infantry/PRC Targets (in US#); unarmored (armed, if available) vehicular Target; Target in a VPO Location; Target in least TEM.



9.341 *BOUNDING FIRST FIRE:* During its MPh an eligible ENEMY vehicle will attempt to conduct Bounding First Fire at a Known vehicular Target. If ≥ two such Targets exist: fire at the Target with functioning MA that has the greatest TK#; easiest to hit; easiest to kill. See also 9.33.

9.342 *BOUNDING FIRE:* Each ENEMY vehicle [EXC: with a B"Ⓡ" ≤ 10] capable of conducting AFPh Bounding Fire does so if it has a Target.

9.35 *ROAD INTERSECTIONS:* Upon reaching a road intersection hex (i.e., a road hex with ≥ three road hexsides) an ENEMY vehicle/platoon using the road will select the road with the most direct path (in number of MP; then number of hexes) to the FBE [EXC: as per specific Move Command instructions]. In no case will the vehicle/platoon enter the hex just exited.

9.36 *BOG HEX ENTRY:* An ENEMY vehicle will only enter a bog hex (any Location requiring a Bog DR to enter/exit it) if it has no alternative non-bog hex that it can enter from its present Location without reentering the hex last exited [EXC: Mud (9.361); or if a Move Command instructs the vehicle to enter such a hex; e.g., in order to OVR].

9.361 *SECRET BOG DR:* If Mud or Deep Snow is in effect (D8.23) any path not blocked by woods or obstacle hexes is legal, though any paved-road/runway hexes should be used as much as possible. Unless another player is available, the (normally Secret) Bog DR is made at the *conclusion* of any (FRIENDLY or ENEMY) vehicle's movement. If the vehicle Bogs return it to the appropriate Location (if its exact VCA cannot be recalled make a Random dr among the possibilities). Any Defensive OVR/Bounding (First) Fire (or Sniper attacks caused by such) vs that vehicle occurring after the Bog Location is nullified (and considered, for all purposes, not to have occured).

9.37 *BYPASS:* An ENEMY vehicle should use Bypass movement to avoid a potential Bog or Prohibited Location in order to complete its Move Command.

9.4 *ENEMY EXIT:* An ENEMY unit may only exit off the FBE [EXC: A S? in Advance Attitude moves toward (and attempts to exit off) the opposite board edge from the edge it entered; if the unit's specific RE/MSR instructions dictate otherwise; Unarmed MMC (6.302); ENEMY Guard (6.303)]. If an ENEMY unit's Move Command instructs it to exit off an ineligible edge, its move is halted in the last playable (half) hex entered.

9.41 *EXIT VP:* Each ENEMY unit exited off the FBE is awarded as normal Exit VP (A26.3) to the ENEMY side. Each exited S? counts as two Exit VP [EXC: 4 VP if in Human Wave; 4.323].

10. ENEMY ROUT

10.1 ENEMY *ROUT:* A broken ENEMY unit uses the standard rout rules (A10.5-.52). As necessary, determine its rout destination as per the following:

Priority List: to a Location containing a Good Order ENEMY leader; out of all FRIENDLY units' LOS; out of all FRIENDLY units' range; into rally bonus terrain Location; into Location with highest TEM; into VPO Location.

10.2 *LOW CRAWL:* A DM ENEMY unit Low Crawls (A10.52) if its rout would be interdicted.

10.3 *NON-MANDATORY ROUT:* A DM ENEMY unit that does not have to rout will rout anyway if it can end the RtPh either in/ADJACENT-to a Location containing a Good Order ENEMY leader and/or in a rally bonus terrain Location (farther away from or out of LOS of FRIENDLY unit[s] if possible) without being subject to Interdiction or having to Low Crawl. When in doubt, rout an ENEMY unit to its best advantage.

10.4 *LEADER ROUT:* An ENEMY Leader routs with a routing ENEMY unit (even if he is in a Human Wave and/or must voluntarily break to do so) [EXC: if he will be subject to Interdiction he will voluntarily break and rout only if there will be no ENEMY MMC remaining in the Location].

10.5 *VOLUNTARY BREAK:* An ENEMY unit will voluntarily break only when the player considers such an action to be in the obvious best interest of that unit or such improves the chances of the ENEMY side winning the Mission.

11. ENEMY APh & CCPh

11.1 *HOLD ATTITUDE:* An eligible Activated ENEMY Infantry unit in Hold Attitude that is *not* Accessible to a Friendly-occupied Location *and* that *currently has a Target*, will only advance into an Accessible Location that has TEM > the TEM of its present Location providing it will still have

a Target and it need not drop-a-HW/leave-a-VPO-Location to do so; otherwise it does not advance. Such a unit that does *not* currently have a Target will advance into an Accessible Location only if that Location has TEM ≥ the TEM of its present Location providing it will have a Target from that Location and it need not drop-a-HW/leave-a-VPO-Location to do so; otherwise it does not advance. [EXC: Automatic Action dictates otherwise; e.g., 6.303-.307, 6.3121, 6.315, 6.317, 6.3173]. See 6.3173 for leader advance. Use the following to help determine the advance, as necessary:

Priority List: FRIENDLY-Controlled VPO Location; Location with unpossessed HW (functioning if FRIENDLY); highest inherent TEM; highest building Location; Location with Target in least TEM available from it; Location with most Targets available from it.

11.11 *S?:* A S? in Hold Attitude is never eligible for advance (nor movement); 3.31.

11.2 *ADVANCE ATTITUDE:* An eligible Activated ENEMY Infantry unit in Advance Attitude that is *not Accessible to a FRIENDLY-occupied Location* will advance into an Accessible Location that is closer to the nearest FRIENDLY-Controlled VPO Location (even if such is not toward the FBE) [EXC: if possessing an assembled/functioning HW with a Target; if in a VPO Location 11.1 applies]. Use the following if > one such Location exists:

Priority List: FRIENDLY-Controlled VPO Location; Location with the highest inherent TEM; Location with highest hexside TEM; Location with the most Targets available from it; Location with (most) unpossessed Weapon (functioning if FRIENDLY).

See 9.25 if no VPO Location exists. As necessary, make a dr and consult the hex rosette found on the Advance Attitude "ENEMY Infantry Movement Table" [A4b] to determine the hex entered [EXC: reroll if instructed to enter a Prohibited Location (9.26) or if the unit would exit off an ineligible board edge (9.4)]. See 3.322 for the advance of an Advance Attitude S?; see 6.3173 for leader advance.



EX: The German is the FRIENDLY side, the north edge of the map is to the left (i.e., the FBE is toward the bottom of this illustration), hence the hex rosette on the right would be used (if necessary) to determine a random advance, as its configuration aligns with the map's hexgrid. It is the start of the APh; the player needs to determine the advance maneuvers for the Advance Attitude ENEMY units depicted above. The squad in O7 stays in place as it possesses the Lt Mtr and has a Target. Next, the 5-2-7 in O9 advances into P8 in order to move closer to the FRIENDLY-Controlled VPO (it could also have entered P9, but P8 has higher inherent TEM). The 4-4-7 squad in P6 must also advance toward the R8 VPO Location; the player moves the unit into Q7 (rather than P7, its other choice), as Q7 has higher hexside TEM than its other choice (P7). The Russian 4-4-7 "D" advances into the ground level of R6, as it has higher *inherent* TEM than Q7 (its other choice), which precedes hexside TEM in the11.2 Priority List. The units already in the R6 building Location will attempt to enter into CC with the FRIENDLY unit in the S7 foxhole (since it is Accessible to a FRIENDLY-occupied Location) the 11.2 guidelines do not apply (see 11.4; Advance into CC/Melee).

11.3 *IN DEPRESSION:* An eligible Activated ENEMY Infantry unit IN a Depression Location will use the APh to assume Crest status in that Location if a Target would be available for it from that position. Otherwise the unit advances as per 11.1-.2.

CC **11.4** *ADVANCE INTO CC/MELEE:* Each unpinned, Good Order Activated ENEMY non-crew Infantry [EXC: if possessing a functioning non-Captured HW or in Hold Attitude when in an IP] will attempt to advance into an Accessible FRIENDLY-occupied Location [EXC: 6.223; 11.41]. To do so it must pass a NTC (Leadership applies) using the following applicable DRM (or normal PAATC if advancing into a FRIENDLY AFV's Location). Failure to pass the TC results in the unit instead remaining in its present Location. Take one TC for each such eligible ENEMY unit, (best-class) leader first.

Advance into CC/Melee NTC Cumulative DRM:

–2 If the FRIENDLY unit(s) is in a VPO Location
–1 If the ENEMY unit is in Advance Attitude
–1 If the ENEMY unit is Berserk
–1 Per pinned/Panicked FRIENDLY unit in the Location
–1 Per FRIENDLY unit in the Location possessing a HW (even if dismantled)
–1 Per ENEMY unit already in/entering the Location
±x DRM of same-Location leader that has already passed his NTC
+2 If any FRIENDLY unit in the Location is concealed

Priority List: FRIENDLY-Controlled VPO Location; Location with FRIENDLY AFV (if ≥ one, easiest to kill); Location with smallest (in US#) Known FRIENDLY Infantry unit; Location with FRIENDLY MMC easiest to kill; Location where Ambush is possible; Location with highest inherent TEM.

11.41 *SMC RESTRICTIONS:* An ENEMY SMC will advance into a CC Location only if accompanying ≥ one ENEMY MMC. An ENEMY SMC will reinforce an existing Melee only if he will improve the ENEMY's odds/chances of winning.

EX: See the 11.2 illustration. The unpinned Advance Attitude ENEMY units in the ground level of R6 must attempt to advance into the Accessible FRIENDLY-occupied Location (S7) by passing a NTC (11.4). The 8-0 leader takes his NTC first; a –1 DRM applies as he's in Advance Attitude, and another –1 DRM since the German unit in S7 possesses a HW (even though unassembled). The leader easily passes his NTC DR with a "5". Next, the 6-2-8 squad takes its NTC; it also has a –1 DRM due to Advance Attitude, a –1 DRM for the German HW in the Location to be (potentially) advanced into, and (now) a –1 per ENEMY unit already entering the Location (since the leader passed his NTC and is slated to enter). However, even with the Cumulative –3 DRM, it fails the NTC by rolling an Original 12. The leader's advance into CC is now cancelled, however, since he is allowed to advance only if accompanying another ENEMY MMC (11.41).

11.5 *ENEMY CCPh ATTACKS:* If a Location contains ≥ one ENEMY Infantry MMC eligible to attack during the CCPh and ≥ two FRIENDLY units, use table A3e to determine the CC Target(s) for those ENEMY units during each CCPh in which Melee exists in the Location. A lone ENEMY SMC attacks the Target with the smallest US#. If the Location contains only one FRIENDLY unit all attacking ENEMY units attack as a FG [EXC: vs vehicle]. If there is a combination of FRIENDLY vehicle and FRIENDLY accompanying personnel units in the Location, ENEMY unit(s) will combine and make its attack using the following:

Priority List: Personnel with smallest inherent FP factor; Personnel with highest morale factor; AFV with functioning armament; vehicle with functioning armament.

11.51 *ENEMY WITHDRAWAL:* A Good Order unpinned non-berserk ENEMY Infantry unit attacked by an Original CC DR of 12 will Withdraw (A11.22) if the combined US# of all unbroken ENEMY unit(s) in that Location is < the combined US# of all unbroken FRIENDLY Infantry in that Location. The Withdrawing unit enters an eligible Location according to the following:

Priority List: with highest inherent TEM; with ENEMY unit(s); with LOS to FRIENDLY Target; nearest to FBE.

11.6 *ENEMY PRISONER ESCAPE ATTEMPTS:* An ENEMY prisoner Guarded by a broken FRIENDLY unit will attempt to Escape (A20.55) if there is no Good Order FRIENDLY Infantry unit in the Location.

11.7 *CONCEALMENT:* Always attempt to place a concealment counter on each eligible ENEMY unit (A12.121).

12. THE MISSIONS

12.1 *INTRODUCTION:* Each *SASL* Mission is divided into ten sections, as follows: Briefing, ENEMY Attitude, Mission Tables, Mapboard Selection & Activation, VP Locations, S? Placement/Entry, Sequence, Mission End, VP Schedule, and Mission Special Rules (MSR).

12.2 *MISSION SELECTION:* Prior to Mission setup the player must first determine the Mission's date. To select a Mission roll on either the "FRIENDLY on Offense" or "FRIENDLY on Defense" column of Table A7 or select any desired Mission [EXC: see 17.21-.22 if playing a CG Mission].[6]



12.21 *PARTISAN ENEMY:* Each Mission that is marked with a "Ⓟ" following the Mission's ID number (e.g., Mission 2) may have a Partisan ENEMY if the FRIENDLY side is German and the Mission takes places during 1942-44 in Russia *or* France. Make a pre-Mission dr to determine the ENEMY nationality; a Final dr of ≤ 1 results in a Partisan ENEMY. Each non-RE S? in a Partisan-ENEMY Mission must have its elements generated using the Partisan Generation Tables.

Cumulative drm:
–1 if in Russia in 1943
–1 if previous Mission was vs. Partisan

12.211 *PARTISAN ENEMY ATTRIBUTES:* An Activated Partisan Infantry unit pays 1 MF to enter a woods Location. Captured-weapon penalties do not apply to Partisans using *Allied* SW/Guns generated from a Partisan generation Table (only). Partisan have MOL capability (A22.6) which should be employed whenever beneficial. Partisans may not Deploy, may not participate in multi-Location FG, and may not make Entrenching Attempts. A Partisan Commissar affects another Partisan unit just as if both were 10/42 Russians [EXC: if he fails to rally a squad it is Replaced by its two HS].

12.212 *PARTISAN-ENEMY ACTIVATION TABLE:* Reroll each Table A1 result containing "AFV" or "SPG".

12.213 *PARTISAN-ENEMY RE TABLE:* A RE for a Partisan ENEMY always uses the special Partisan-ENEMY RE Table (found on the Partisan Generation Tables card) *instead* of (ENEMY RE) Table A11 (including any cdr modifier normally applied on Table A11).



12.22 *SPECIAL FORCES INTEGRITY:* If the first ENEMY MMC generated {G2} from a *non-RE* S? is an MMC type which (under historical circumstances) would not normally be intermixed with other, different type/class MMC of that nationality (e.g., US paratrooper [7-4-7], German SS [6-5-8] or Assault Engineer [8-3-8] or British Commando [6-4-8]), all subsequent *non-RE* S? that successfully Activate a MMC can only generate that same MMC type (no roll on Table x2 is required). Conversely, if the first ENEMY MMC generated {G2} from a *RE* S? is an MMC type which (as per above) would not normally be intermixed with other, different type/class MMC of that nationality, all subsequent S? *from that same RE* that successfully Activate a MMC can only generate that same MMC type (no roll on Table x2 is required).

EX: If the ENEMY nationality is German and the first MMC generated {G2} from a non-RE S? is an "SS" MMC, all subsequent *non-RE* S? that successfully Activate a MMC can only generate SS MMC {G2}. Additionally, if the first MMC generated {G2} from a German-ENEMY RE S? is an "SS" MMC, all subsequent S? that successfully Activate occuring *due to the same RE* can only generate "SS" MMC {G2}.





12.3 *EC/WIND/WEATHER:* Randomly determine the Mission's EC (B25.5), Wind Force (B25.63) and weather (E3.; or the appropriate weather chart, depending on Theatre).

12.31 *WINTER CAMOUFLAGE:* In any Mission taking place in any type of snow weather (E3.7) there is a possibility that one or both sides may be Winter Camouflaged (E3.712). Make one dr for each side (applying any applicable drm); on a Final dr of ≤ 2 that side's respective units are considered Winter Camouflage for the current Mission. If playing a CG, once the FRIENDLY side has gained Winter Camouflage, it automatically has Winter Camouflaged in all other subsequent Missions in which Winter Camouflage would be applicable.

Cumulative drm:
–1 if the FRIENDLY majority squad type is elite*
–1 Russian
+1 1941 German
+1 for vehicles
+1 if the FRIENDLY majority squad type is Conscript/Green*

* Applicable to the FRIENDLY side only.

12.32 *MISSION TABLES:* Tables to determine both sides' SAN and RE #s (2.1), and for determining the starting ENEMY AC# (5.11), are provided in each Mission.

12.4 *ELR:* Use the appropriate Chapter H ELR chart to determine the ELR of each side's units (e.g., use H1.28 to determine ELR of German/Russian units).

12.5 *FRIENDLY WITHDRAWAL:* In addition to the method given in the "Mission End" section of each Mission, a Mission also ends immediately upon the exit of the last Mobile/unbroken FRIENDLY unit off the FBE. Each non-Mobile/broken FRIENDLY unit remaining on the map at such a time is considered KIA for (CG) victory condition purposes. Unless a RE instructs otherwise, any Mission ending thusly is an automatic ENEMY victory.

12.6 *MISSION VICTORY CONDITIONS:* Unless stated otherwise by the Mission, the FRIENDLY side must score *more* VP than the ENEMY in order to win a *SASL* Mission. Any other result is an ENEMY win. VP are awarded to each side as per the Mission's VP Schedule. Each Melee existing at Mission end must be carried out until Melee no longer exists. See also 17.1321 if playing a CG.

12.7 *MISSION END: SASL* Missions do not provide the player with a Turn Record Chart since the turn length of many of them can vary. It is suggested, therefore, that the player use the VP track (of the *ASL* Scenario Aid Card) as a *de-facto* turn track.



Furthermore, in a Mission where a minimum number of turns that must be played is established at game start, place the "Possible Game End" marker on the number of the first turn that the Mission could possibly end.

13. MAPBOARD SELECTION & FEATURES

13.1 *PROCEDURE:* The following rules are used to determine each mapboard for a *SASL* Mission. Consult the Mission's "Mapboard Selection & Activation" section for specifics on when and how each mapboard for that Mission is activated. Some Missions allow additional mapboards to be activated during play, usually due to a FRIENDLY unit entering a new Location near the current EBE.

13.2 *SELECTION PROCESS:* Perform the following steps (13.21-.2312, as necessary) for each mapboard randomly generated:

13.21 *DETERMINE TERRAIN COLUMN:* Make a DR on the proper subtable (a-e) of Table A8. The result gives a Terrain Column to be used on Table A9. The "Mapboard Selection & Activation" section of each Mission lists the proper subtable of A8 to use for that Mission.

13.22 *DETERMINE MAPBOARD:* Make a DR {A9} using the Terrain Column determined from Table A8. The result is the board number of the just-activated map. Reroll, as necessary, if the determined mapboard is not available or is currently in play.

13.23 *MAPBOARD ALIGNMENT:* Make a random dr to determine each mapboard's alignment. On a dr of ≤ 3 the board number is placed towards the north. If necessary, place S?/VPO-Control markers as dictated by the Mission being played (4.1a-e, 14.1).

13.231 *ROAD NETWORK:* A MSR may require that the mapboards generated be placed such that a continuous path of "connected" road hexes exists from one board edge to another (usually from the FBE to the [current] EBE). As each mapboard is placed in such a Mission the player must insure that a continuous network of contiguous road hexes exists from/to the specified board edges. Where > one path exists (e.g., due to a "loop", or the road leading off an eligible board edge at > one Location), only the road hexes comprising the *shortest* (measured in contiguous road hexes) path are considered to be part of the Road Network. If an equidistant path is formed all road hexes of each equidisant "branch" are part of the Road Network.

If a path of contiguous road hexes does not exist when a new map is placed, reverse the alignment of the just-placed board. If a Road Network is still not formed discard that board and determine a new one until an acceptable mapboard is placed.

13.2311 *ROAD NETWORK BRIDGE:* Each single-hex bridge *along the Road Network* is automatically intact (the A9c dr for such is ignored). If a river/canal mapboard is generated (e.g., board 7, 8 or 40) a multi-hex bridge automatically exists along the Road Network (reversing alignment as necessary; or use table A9a if > one hexrow is eligible). Roll for bridge type normally {A9b/c/d}.

13.2312 *PLOWED ROADS:* A MSR-required Road Network is considered Plowed (E3.723, E3.733-.7331) if Deep Snow is present.

13.24 *TERRAIN ALTERATIONS:* The player is free to use published/homemade terrain overlays, or Broken terrain rules (F13.1) to alter a mapboard's printed features, as desired. Steppe Terrain (F13.2) can also be used with mapboards 26-31 and various desert overlays, at the player's discretion. Use of any overlays may, however, affect both S? placement and the VPO determination processes (14.1).

13.26 *FACTORY:* Make a dr for each building of ≥ 7 hexes on each "City"

mapboard (marked with the "c" prefix on Table A9). An Original dr of ≤ 3 results in the building being a Factory (B23.74).

13.3 *DUPLICATION:* If a board that is already in play is activated again reroll for a different board using the same [A9] Terrain Column.

13.4 *STREAMS AND WATER-OBSTACLES:* When a mapboard is activated that has a stream/river present, the proper Chapter B tables (B20.4; B21.121-.122) should be used to determine the water's depth/current. As necessary, make a Random dr to determine the current's direction.



13.5 *ONE-HEX BRIDGES:* Each one-hex bridge must have a dr made {A9c} to determine if the bridge is intact or destroyed [EXC: 13.2311]. Regardless of the result make a subsequent dr {A9d} to determine the bridge's construction. If the Table A9c result is "destroyed" place the appropriate rubble counter (as necessary; B6.331) at the Depression level of the hex. See also 14.12.

13.6 *RIVER BOARD:* When a river/canal mapboard (e.g., 7, 8 or 40)[8] is activated use tables A9a-b to determine the presence and construction of a multi-hex bridge. A dr {A9a} of ≥ 5 results in no bridge being present; you have, in effect, reached a "dead end" [EXC: 13.2311]. If the presence of a bridge is established a subsequent dr is made {A9b} to determine the type of bridge. See also 14.12.



13.61 *FRIENDLY RIVER ASSAULT:* If a bridgeless river mapboard is the first non-FRIENDLY setup board selected in a Mission in which the ENEMY is in Hold Attitude (*and* the FBE is along the 22"-length of a mapboard), the FRIENDLY side automatically receives a number of small rafts sufficient to transport his entire OB, including later-arriving (RE) reinforcements. A large raft is granted, as necessary, to transport each eligible FRIENDLY Gun (E5.122). If the FRIENDLY side is German, Assault Boats (E5.11) are received instead of small rafts on a subsequent dr of ≤ 3. FRIENDLY units are not subject to Command Control while on a boat in a Water Obstacle hex.

14. VICTORY POINT OBJECTIVES



14.1 *VPO:* Some Missions require the designation of ≥ one VPO when a mapboard is initially placed. Consult the Mission's "VPO Locations" section for specifics on VPOs for that Mission. A VPO might be a single Location (e.g., a woods or single-hex building Location) or a group of Locations (e.g., of the same multi-Location building; 14.32) as determined by a separate dr for each VPO required {A10a} (reroll, as necessary, so that each VPO is different). Each VPO should be designated by placement of a VPO marker in a Location of that VPO, with the face-up side of the marker displaying the current Controller. An ENEMY unit in a VPO Location has its movement restricted as if it were in an IP (6.312).

14.11 *RESTRICTION:* A VPO may not be so designated if any Location of it would be ≤ three hexes from any whole offboard hex along the FBE [EXC: multi-hex bridge; 14.12]. Reroll {A10a}, as necessary, for a different VPO. A bridge may be a VPO Location only if it is intact; reroll {A10a} for a different VPO if such a bridge is destroyed.

14.12 *MULTI-HEX BRIDGE POTENTIAL:* Before determining the VPO Location(s) on any mapboard with the potential of an intact multi-hex bridge, the condition of that bridge must be determined (13.5-.6). If such a bridge exists and ≥ 1 VPO is to be marked, it is *automatically* the first VPO (and second, if two such bridges are present and ≥ two VPO are required) on that mapboard. If two such bridges are present, but only one VPO is to be designated, use the following to determine the VPO:

Priority List: stone construction; two-lane; number of Locations.

If a mapboard has a multi-hex bridge as a VPO all non-water-Obstacle Locations of those bridge hexes, as well as the two ADJACENT land Locations (one at each end of the bridge), are VPO Locations. However, a side can Control a bridge VPO if it currently Controls the two ADJACENT land Locations and no opposing unit is currently on/beneath a bridge Location of that VPO, regardless of what unit last Controlled the Location.

14.13 *RIVER MAPBOARD:* The VPO for a river mapboard are given in the form *hex/hex*. When such a VPO is to be designated, use only the VPO nearest to the EBE.

EX: When playing the Cautious Advance Mission, mapboard 7 has just been activated, and is aligned (13.23) with its board number to the north. It is then determined that two VPO are present on that mapboard. Consulting table A9a, the player makes a dr of 2, resulting in a multi-hex bridge in hexrow AA spanning the river. After determining the bridge's type {A9b & A9d}, it automatically becomes the first such VPO marked (14.12). The second VPO must now be determined. A dr of 4 {A10a} gives the result of "P2/V9". Since P2 is nearest to the EBE, it becomes the second VPO; V9 is ignored as it is on the river's west side.

14.14 *VPO DESTRUCTION:* If all Locations of a VPO are rendered inaccessible during play (e.g., due to terrain blaze or collapse of a bridge into a Water Obstacle) the side *not* causing the inaccessibility of the VPO is awarded any VP for Control of such VPO. If neither side can be held responsible (e.g., Blaze spreading from a burning wreck), the last side to have Controlled the majority of the Locations of that VPO is awarded its VPO value.

14.2 *VPO DETERMINATION:* Make a separate dr {A10a} for each VPO to be designated. If a board is to have > one VPO determined, each must be different; reroll {A10a}, as necessary.

14.3 *MULTI-LOCATION VPO:* All (non rooftop/aerial/subterranean) Locations of a multi-Location VPO must be FRIENDLY Controlled for the player to claim its VP value for the FRIENDLY side [EXC: 14.12]. If not, such VP are awarded to the ENEMY side. There are four types of multi-Location VPO (14.31-.33):

14.31 *TWIN VPO:* Some VPO results list two distinct hexes as part of that VPO in the form *hex-hex*.

EX: The determined VPO for board 2 is "V8-W7". *Both* hexes must be FRIENDLY Controlled at Mission end in order for the player to receive their VP award. Despite that each hex contains a different building, only one VP value dr is made {A10b}, as both comprise but one VPO (14.4).

14.32 *MULTI-LOCATION BUILDING:* All non-rooftop/non-sewer Locations of a multi-Location VPO building are VPO Locations (all hexes of a rowhouse building are considered one building).

14.33 *HILLTOP:* When a non-building hilltop hex is a VPO, all Accessible same-level Locations are VPO Locations.

EX: One VPO is to be determined on board 2. The dr of two {A10a} results in "O5" as the VPO. Thus, hexes N5, O5 and P5 are VPO Locations.

14.4 *VPO VALUE TABLE:* The value of each VPO is determined *only at the conclusion of the Mission*. Make a dr {A10b} for each such VPO, applying drm as applicable. Note that a dr is made per VPO, not per VPO Location.

14.5 *KINDLING:* A VPO Location may not be voluntarily Kindled.

15. FRIENDLY UNITS

15.1 *FRIENDLY UNITS:* The FRIENDLY side begins each Mission with 130 BPV (or as specified otherwise in a MSR) with which to purchase Infantry MMC (*only*) of the selected FRIENDLY nationality using the Chapter H DYO method. Such purchases should be made *after* the Mission's parameters have been determined, but before FRIENDLY MSR-given units are determined and before S? are setup [EXC: if playing the *SASL* CG the player's starting units are determined as per 17.13]. FRIENDLY vehicles and Guns are obtained *only* as per MSR or due to FRIENDLY RE occurrence. FRIENDLY units initially setup-for/enter the Mission as noted in the "Sequence" section of each Mission. To purchase the FRIENDLY force, use only rules H1.2-.26, H1.28, and H1.74-.83.



15.2 *FRIENDLY HIP UNIT:* Each FRIENDLY HIP unit is never a Target as long as it remains hidden. Such a unit can be placed onboard but should be covered with a 5/8" "?" marker; use 1/2" "?" markers for all other forms of FRIENDLY concealment during a Solitaire Mission. **NOTE:** the last sentence of A12.3 is disregarded when using this solitaire system.

15.21 *FRIENDLY MINEFIELD:* During a Mission FRIENDLY minefield Locations may be marked on the mapboard(s) by the appropriate minefield counter placed onboard in the Location. If not yet Known to the ENEMY the counter should *face toward the player*. Once an *Activated* ENEMY unit has been attacked by the minefield (by any result other than "–" on the IFT) the counter is rotated to face toward the EBE.

15.3 *COLUMN/CONVOY:* FRIENDLY units may begin a Mission setup in Column/Convoy formation at the player's option. Unless otherwise noted, a Convoy vehicle has full PP capacity in *SASL*.

15.4 *SPECIAL CAPABILITIES:* A special capability (i.e., H1.22-.26) bought for a unit(s) of the FRIENDLY OB does not apply to FRIENDLY RE reinforcements unless so specified by RE or MSR.

15.5 *FRIENDLY UNIT ENTRY:* FRIENDLY units may be kept offboard (indefinitely), even if allowed to initially setup onboard. Each FRIENDLY unit (including each FRIENDLY RE unit [EXC: as per MSR]) entering from offboard must do so along the (current) FBE. Reinforcing

FRIENDLY units enter, in part or in whole, on/after their initial turn of availability. Each OB-given unit is available at Mission start.

15.6 *FRIENDLY UNIT EXIT:* A non-prisoner FRIENDLY unit may exit off the *FBE* during any RtPh or FRIENDLY MPh/APh (whether in Good Order or not). Any such exited unit is not considered eliminated for Casualty-VP/CG purposes but may not reenter the mapboard during that Mission. Each FRIENDLY unit exited off a non-FBE is considered KIA [EXC: as required by a MSR/RE].

15.7 *FRIENDLY WEAPON SPIKING:* The ENEMY is awarded the Casualty VP value of any FRIENDLY Gun/vehicle intentionally destroyed by a FRIENDLY unit. Each captured FRIENDLY vehicle/Gun, and each FRIENDLY unit taken prisoner, is worth double Casualty VP value at Mission end (A26.21).

15.8 *FRIENDLY SEARCH/MOPPING-UP CASUALTIES:* Searching by a FRIENDLY unit can only remove ENEMY concealment (it will never reveal an ENEMY HIP unit/Fortification). FRIENDLY casualties due to Search/Mopping-up occur in the normal manner (A12.154; i.e., the Casualty dr must be made by the player in attempt to cause casualties to the FRIENDLY side).

15.9 *MOPPING UP ACTIVATION:* When a building is Mopped Up (A12.153) by a FRIENDLY unit(s), there is a chance that a HIP ENEMY unit(s) will be Activated [EXC: Prevailing Attitude is Advance]. Make a DR and apply a –1 DRM for each (non-Rooftop) Location of the building in excess of three that has not had a FRIENDLY unit in it. If this Final DR is ≤ 2 a Mop Up Activation occurs. Make a subsequent DR {A1} to determine the unit(s) Activated (if any). Each such Activated unit is placed in the Location of that building that is ADJACENT to the Location containing the most Mopping Up units (Random dr if ≥ two such Locations exist). Once all such units are eliminated the building is considered secured.

16. FRIENDLY COMMAND CONTROL

16.1 *COMMAND CONTROL:* Each FRIENDLY unit, like each ENEMY unit, has the potential to Panic (even if offboard; 16.33) [EXC: 13.61]. The player does not know if a unit will be functional (in Command) for the current (ENEMY or FRIENDLY) Player Turn until its Command DR (CMD DR) is taken. Note that the following Command Control rules are in effect for the *FRIENDLY side only*; ENEMY Command Control is inherently built into the ENEMY Action Table DR {A2}.

16.2 *CMD#:* A FRIENDLY unit (including offboard/RE reinforcements) must first pass a CMD DR by rolling ≤ its Command Number (CMD#) in order to perform any non *RPh/RtPh* activities during the current Player Turn [EXC: 16.32]. A unit's CMD# is based on its morale, as per the following listing:

- A leader/crew has a CMD# one > its current Morale Level.
- A squad/HS has a CMD# equal to its current Morale Level.
- A vehicle has a CMD# one > its current Morale Level (D5.1) [EXC: a SMC Rider/Passenger may use his own CMD# if it is greater].



16.3 *CMD DR:* A CMD DR is made for a unit only when it is ready to perform its *first* non-RPh action for that Player Turn (see also 16.4-.421). Passage of the CMD DR allows that unit to perform actions normally for the remainder of that Player Turn. Failure to pass the CMD DR results in that unit being immediately marked with a Panic marker; 6.211-.213 apply. An Original CMD DR of 12 always results in Panic. A CMD DR does not activate a Sniper (A14.1), nor is it a concealment-loss activity. Note that FRIENDLY and ENEMY units Panic by different methods, but the effects (6.21-.213) are the same.

16.31 *DRM:* The following Cumulative DRM apply to a unit's CMD DR:

–1 if in Motion
–1 if in Convoy/Column/platoon formation
–1 if the unit has an Acquired Target
–1 CE AFV
–1 SMC possessing function radio/field-phone & OBA is available
–1 U.S. Infantry MMC[5]

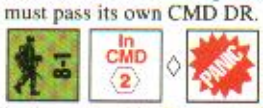
16.32 *EXCEPTED UNITS:* A FRIENDLY unit that is berserk/broken/held-in-Melee/under-Recall/Heroic is never subject to Command Control. A FRIENDLY heroic leader exerts his Command Influence range (16.4) normally. All units in a Convoy/Column/platoon take a single CMD DR for the entire formation. The CMD# of the best FRIENDLY (armor) leader or Vehicle in that formation is used.

16.33 *OFFBOARD PANIC:* A FRIENDLY unit that Panics when offboard may not enter during that Player Turn. It must remain in its current (offboard) setup hex until the next FRIENDLY Player Turn, when it may again attempt to enter. All offboard whole-hexes are considered OG for FRIENDLY Command LOS purposes.

16.34 *PASSENGERS/RIDERS:* A Passenger/Rider is in Command if its transporting vehicle passes its CMD DR. However, if the unit becomes Infantry it must pass a new CMD DR in order to perform further actions in that Player Turn. If a vehicle transporting a Passenger/Rider fails its CMD DR its Passenger/Rider may attempt to pass its own CMD DR, passage of which allows the transported unit to continue actions normally for that Player Turn (e.g., unload; become CE/BU if in an armored halftrack; attack).

16.35 *LOADING/UNLOADING:* In order to load/unload (or hook/unhook; C10.11-.12), only the Personnel unit(s) wishing to perform such an activity need pass a CMD DR.

16.36 *SPOTTED FIRE:* If a Spotter (C9.3) passes its CMD DR the unit(s) it is spotting for is also considered in Command, but only for purposes of Spotted fire for that Spotter, otherwise the unit performing Spotted fire must pass its own CMD DR.



16.4 *LEADER COMMAND INFLUENCE RANGE:* Each Good Order, unpinned, non-Captured FRIENDLY Personnel (non-armor) leader exerts his Command Influence into all Locations in his LOS within two hexes, as well as the Location he is in, *at the moment his CMD DR is made*. If pinned, such a leader exerts his Command Influence only into his currently-occupied Location. See 16.43 for a (Passenger/Rider) Personnel leader's Command effect on vehicles. A leader may have his CMD DR made as soon as he, or any unit within his Command Influence range, wishes to perform its first action (see also 16.41). Mark each leader that passes his CMD DR with an "In CMD" marker.

Like a FRIENDLY Personnel leader, a FRIENDLY CE armor leader also has a two-hex Command Influence range. However, such a leader can only exert his Command Influence over other FRIENDLY vehicles, and only if all such vehicles are CE, or using platoon/Convoy movement, and within his LOS [EXC: 16.32].

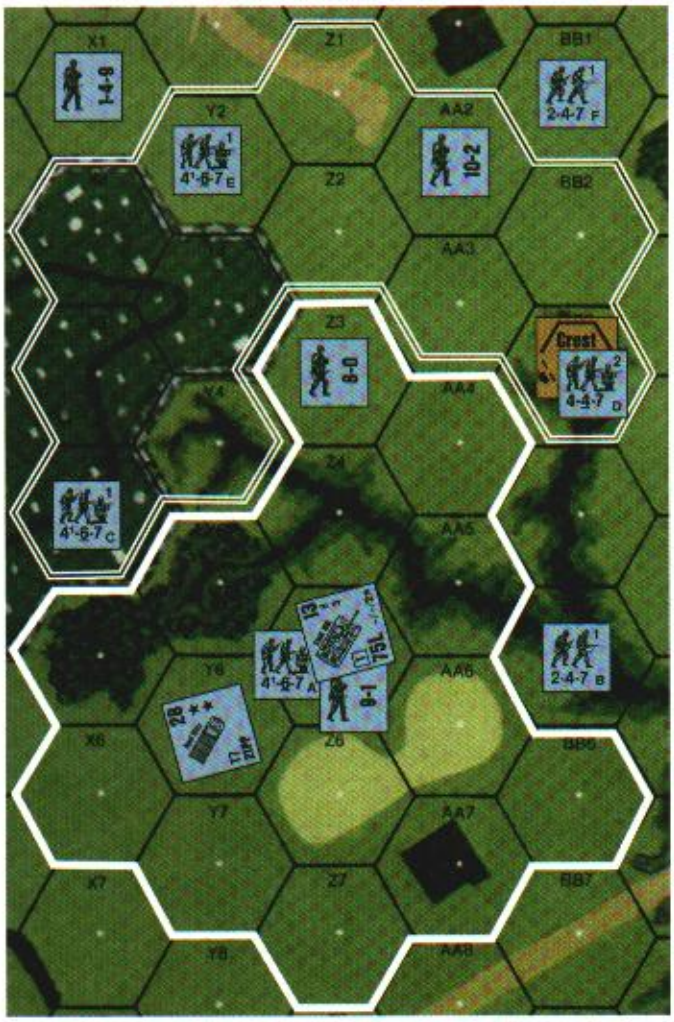
16.41 *EFFECTS:* Each Good Order FRIENDLY MMC/lower-rated-leader (A10.7) is automatically in Command (i.e., is considered to have passed its CMD DR) if any FRIENDLY leader exerting his Command Influence into its Location passes his CMD DR, even if that leader *subsequently* moves/breaks/pins/is-eliminated, leaving the unit out of his Command Influence range. Once a FRIENDLY leader has passed his CMD DR, each FRIENDLY unit subject to that leader's Command Influence may perform actions, and *at least one such unit must perform an action before another leader's CMD DR is made*. A unit must use a (higher-rated) leader's CMD DR as his own CMD DR if the unit is within that leader's Command Influence range.

If *each* leader that could exert his Command Influence into a MMC's Location fails his CMD DR, the unit may then, and only then, attempt its own CMD DR.

16.42 *MULTIPLE LEADER INFLUENCE:* If any one leader exerting his Command Influence over a unit passes his CMD DR, that unit is in Command for that Player Turn. Otherwise it must pass its own CMD DR.

16.421 *RANK:* A leader cannot exert his Command Influence over a FRIENDLY leader of *equal or higher* type (i.e., with the same or better morale *and* Leadership DRM). If he is not in Command due to being in the Command Influence range of a higher-rated leader, he must use his own CMD DR.

16.43 *VEHICLES AND COMMAND INFLUENCE:* A Good Order, FRIENDLY, non-Captured *Personnel* leader exerts his Command Influence over a vehicle/its-PRC only if he is currently a Passenger or Rider of that vehicle [EXC: Convoy/platoon; 16.32], or if that vehicle/its-PRC is (CE if an AFV and) in the leader's hex and in his LOS. Such a Personnel leader that is a Passenger/Rider on a Motion vehicle exerts his Command Influence only over his transporting vehicle and any other same-vehicle PRC. A leader that is a Passenger/Rider on a stopped vehicle exerts his Command Influence normally [EXC: a Passenger leader in an AFV must be CE in order to exert his Command Influence over any non-Passenger of the same AFV].



EX: In the illustration above the base level of all hexes enclosed by the thick, *solid* white lines are within the two-hex Command Influence range (16.4) of the FRIENDLY 9-1 leader in 12Z5; each FRIENDLY Infantry unit in such a Location is in Command if the 9-1 passes his CMD DR by rolling ≤ 10 (16.2). The StuG in the 9-1's Location is not subject to his Command Influence since it is BU (16.43), and must therefore pass a CMD DR of its own (CMD DR of ≤ 9; 16.2) in order to be in Command during the current Player Turn. The truck in Y6 must also pass its own CMD DR as it is not in the 9-1's Location (16.43). Halfsquad B (IN the gully) and squad C (in X4) are not within the 9-1's Command Influence range since they are not in his LOS.

Additionally, all MMC units within the *double* white lines are in the Command Influence range of the 8-0 in Z3, who is within the Command Influence range of the better-rated 9-1. Note, however, the 10-2 in AA2 leader is not in command, as the 8-0 (a lesser-rated leader) has no effect on him. Thus, if the 9-1 *passes* his CMD DR, all MMC units (and the 8-0 SMC) in hexes enclosed by *all* white lines will be in Command. If the 9-1 fails his CMD DR (Original DR ≥ 11) another leader may attempt his CMD DR. If the CMD DR of the 10-2 is successful (Original DR ≤ 11), the 8-0 will automatically be in command. Additionally (if the 8-0 is in command), squad A in Z5 and each MMC enclosed by the double white lines will be in command (but not the 9-1; 16.421). If each FRIENDLY leader fails to pass his CMD DR, each FRIENDLY (non-leader) unit may then attempt its own separate CMD DR. Each such unit must roll ≤ its current morale level to be in command. Regardless, halfsquad B IN the BB5 gully will have to pass its own separate CMD DR, as it is out of all FRIENDLY leaders' Command Influence range. The FRIENDLY hero in X1 is always in Command (16.32).

17. SOLITAIRE CAMPAIGN

The following Chapter S rules apply only to the *SASL* Campaign Game.

17.1 *INTRODUCTION:* In the *SASL* CG you, the player, assume the role of a commander of a WW2 infantry company. You will play a series of consecutive Missions in which surviving units "Directly Attached" (17.131) to your company form the core of your starting OB for the next Mission. Using this CG system you will have to decide when a Mission has become too costly, in terms of FRIENDLY losses, to justify the continued pursuit of its victory. You must choose when to extricate your troops from potential disaster, or when to "gut it out" in order to (hopefully) achieve that win. In a *SASL* CG Mission, you may find it more important to survive and lose than to win and be virtually wiped out. To prepare for your first *SASL* CG Mission consult steps 17.11-.22.

17.11 *SELECT FRIENDLY NATIONALITY:* Depending on the nationality generation tables available (1.1), select a FRIENDLY nationality.

17.12 *THEATRE:* Depending on the nationality generation tables available (1.1), select a theatre of operations.

17.13 *FRIENDLY UNITS:* In a *SASL* CG Mission the player commands an Infantry company (based on historical records and adapted to *ASL* scale) of the selected FRIENDLY nationality. See 18.5, under the selected nationality, for a listing of all units/Weapons in each full-strength company playable in *SASL*. HS listed in a company OB represent MG teams.

17.131 *DIRECTLY ATTACHED:* Each FRIENDLY unit/Weapon listed for a company OB (18.5), as well as each leader Created (A15.21/A18.12) *from a Directly Attached unit*, is considered Directly Attached to that company. Each such unit/Weapon should have its ID letter/name recorded on the CG Roster in order to distinguish it from all other (i.e., Temporarily Attached; 17.132) FRIENDLY units/Weapons on the mapboard concurrently.[10] Only a *Directly Attached* unit/Weapon is subject to improvement/replacement (17.7-.8). A hero *created from a Directly Attached unit (only)* is Retained until the completion of step 17.74 [EXC: if eliminated due to wound; 17.621]. When an on-map Directly Attached squad is Deployed, or an on-map Directly Attached Weapon is dismantled, place it in the "Deployed/Dismantled" box of the *SASL* CG Roster until it is again needed on-map.

17.1311 *FRIENDLY EXIT:* Each *Directly Attached* unit/Weapon exited off the FBE (15.6) during a solitaire CG Mission is Retained (available for the next such Mission) [EXC: if eliminated subsequently due to wounds]. If exited off any other edge it is eliminated [EXC: if such exit is required by Mission VP-Schedule/MSR]. Place each unit/Weapon thusly exited in the "Exited off FBE (15.6, 17.1311)" box at the bottom of the *SASL* CG Roster.

17.132 *TEMPORARILY ATTACHED:* Also falling under the player's command is each unit/Weapon Temporarily Attached to the FRIENDLY company. Temporarily Attached units/weapons include FRIENDLY forces granted due to MSR, FRIENDLY RE reinforcements and captured equipment. Each surviving Temporarily Attached unit is returned to the counter mix at the conclusion of a Mission (17.61), and is not available for the next CG Mission.

17.1321 *VP VALUE:* A Temporarily Attached unit(s)/Weapon(s) eliminated/captured by the ENEMY in the previous Mission is worth a number of Casualty VP (A26.2) to the ENEMY equal to 1.5 times its normal VP value (if any) (FRD) [EXC: if Russian].[11]



17.14 *SW TEAM:* Each FRIENDLY crew with a 1-FP factor (e.g., German/Russian 1-2-7 crew or U.S. 1-2-6 crew) represents a SW Team. A SW Team is the equivalent of a vehicular crew in all respects [EXC: it is treated as a HS for purposes of manning/firing/driving a crew served weapon (A21.13), armed vehicle or AFV (A21.22)].[11]

17.141 *SW USAGE RESTRICTION:* A SW Team is the only MMC unit that may fire a FRIENDLY ATR/LI-MTR/PSK/BAZ without the non-qualified use penalty applying (A21.13) [EXC: FRIENDLY RE/MSR reinforcements]. A full-strength company OB lists one SW Team for each such Weapon in that OB.

17.15 *CAMPAIGN ROSTER SHEET:* On the back of the Chapter S Divider is the *SASL* CG Roster Sheet. Photocopies of the sheet may be made to keep a running record of the units/Weapons belonging to the player's company, and other CG related material, for each *SASL* CG Mission played.

17.2 *MISSION-SPECIFIC PARAMETERS:* The following rules (17.21-.22) replace 12.2 when playing a CG Mission.

17.21 *DATE:* Determine a starting date (month) for your CG. It is suggested that the first Mission of the CG be the for the first month of hostilities of the two selected nationalities on that front. Each Mission played advances the month by one, so that one Mission is played per month. (If hostilities did not last long [e.g., the German invasion of France] the player may instead wish to play one Mission per week of hostilities.) Alternatively, the player may select a beginning date (e.g., if simulating the campaign of a specific unit use the month that the unit first saw action on that front; a little historical research will be necessary, but the work should be worth the effort). Continue to use 12.3 for EC/wind/weather determination, and 12.4 for ELR. The final Mission of the CG should likewise correspond to the last historical date that the selected unit/nationality engaged in combat on that front (unless, of course, your command is wiped out).

17.22 *MISSION SELECTION:* Use the Mission Selection Table {A7} to determine the Mission. This table is divided into two subtables, one for when

the FRIENDLY nationality is attacking, one for when it is in a defensive mode. A little research into the historical situation on that front for the upcoming time period should reveal which chart would be most appropriate.

17.3 *COMPANY CASUALTIES:* During a CG Mission the player must separate casualties incurred by the FRIENDLY company into two groups:

17.31 *RETAINED:* Each Directly Attached (17.131) non-prisoner unit eliminated during the previous Mission due to "double break" (an already broken unit that breaks again; A10.3), Casualty MC (A10.31), Fate (A10.64), unarmed unit Casualty Reduction (A20.54), or Extreme Winter (E3.742) is Retained in the FRIENDLY company's OB (in an unbroken state) at the conclusion of the Mission. Also, each Directly Attached Weapon removed during a Mission due to non-deliberate malfunction is Retained. Each Retained unit/Weapon is available for the next Mission played [EXC: as per MSR]. Place each such unit/Weapon thusly removed in the "Eliminated & Retained" box at the bottom of the *SASL* CG Roster.

17.32 *ELIMINATED:* Each Directly Attached FRIENDLY unit removed by any other means (e.g., CC, KIA, K/#, Failure to Rout, Commissar rally (A25.222), Capture, Interdiction, Surrender (A15.5), Falling [B11.41], non-Survival [D5.6]; see also 17.43 & 17.621) is eliminated from the company's OB (but is subject to Replacement in step 17.8). Each Directly Attached Weapon unpossessed/Captured at Mission end, eliminated due to Self Destruction (A9.73) or Random Destruction (A9.74) is also removed from the company OB. Place each unit/Weapon thusly eliminated in the "Eliminated from OB" box at the bottom of the *SASL* CG Roster.

17.4 *MISSION END:* Upon conclusion of a CG Mission the player must resolve each of the applicable following situations (17.41-.44) involving FRIENDLY unit(s). Victory of the Mission (17.5) is not determined until each such necessary step is resolved.

17.41 *CLIMBING UNIT:* Each FRIENDLY unit on a Climb marker must be placed in either the Location it was attempting to reach or the Location it left when it began to climb (your choice). If the Location the unit is placed in contains an ENEMY unit(s) mark them all with a Melee (not CC) marker.

17.42 *IN MELEE:* All units in Melee must undergo an (unlimited) number of CC rounds until no Melees exist. Such units are free to perform any/all normal CCPh activities associated with Melee (i.e., Capture attempts, Withdrawal, attack, etc.). Consider the ENEMY side the ATTACKER only if the Prevailing Attitude was Advance in the just-completed Mission. Following the conclusion of the first such post-Mission round of Melee in a Location, each still-concealed unit therein loses its "?" and each vehicle currently in Motion is removed from Melee.

17.43 *ENCIRCLED:* Each Encircled FRIENDLY unit [EXC: if prisoner] must take a 1TC (leader DRM applies). Each such unit failing the 1TC is considered KIA. Any Weapon that such a unit possessed may be immediately possessed by another FRIENDLY unit in that Location (if any); otherwise such a Weapon is eliminated (17.32). Each such unit that passes its 1TC is considered to have survived the Mission (and Retained if Directly Attached).

17.44 *IN MINEFIELD:* Each FRIENDLY vehicle/its-PRC in any type of minefield Location undergoes the appropriate type(s) of mine attack(s), fully resolved in the normal manner, as if it were attempting to exit the Location. Each FRIENDLY Infantry unit in an A-P minefield Location (including PRC just-debarked due to a minefield attack) must undergo a mine attack as if attempting to exit the Location; [non-armor] leader DRM applies. Each such surviving unit (even if broken) is considered to have survived the Mission (and Retained if Directly Attached; 17.31).

17.5 *VICTORY DETERMINATION:* After all surviving FRIENDLY units are determined the player tallies each sides' VP total to determine the Mission victor (12.6).

17.51 *UPDATE CG VP:* One CG VP is scored for each *SASL* CG Mission the player wins; one CG VP is lost for each Mission he loses (or one CG VP is deducted from a positive CG VP total). If the FRIENDLY side withdrew during the last Mission (12.5) –2 CG VP are scored [EXC: if dictated by FRIENDLY RE 74]. The player's current CG VP score is used to determine drm for Squad Seasoning (17.74). See also 17.9.

17.52 The player wins the *SASL* CG if his CG VP score is positive at the end of the last CG Mission to be played. If his CG VP score is negative he has lost the CG.

17.6 *FRIENDLY UNIT REMOVAL:* At this time the player must separate FRIENDLY units that are Retained in his company's OB from those that are not.

17.61 *TEMPORARILY ATTACHED:* Each surviving Temporarily Attached unit/Weapon (17.132) is returned to the counter mix and is ineligible for any further involvement [EXC: a hero created from a Directly Attached MMC is not eliminated until Squad Seasoning (17.74) is completed].

17.62 *DIRECTLY ATTACHED:* Each non-prisoner Directly Attached unit remaining on the mapboard at Mission end, as well as each Directly Attached Weapon possessed/portaged by a FRIENDLY unit, is Retained. Each FRIENDLY berserk unit loses its berserk status. Each unpossessed Weapon is forfeit. Additionally, each Directly Attached unit/Weapon exited (as per 15.6) or never entered is Retained. ENEMY Weapons/units can never be Retained. See also 17.31-.32.



17.621 *WOUNDS:* Make a dr for each wounded FRIENDLY SMC; on a dr of ≤ 4 the SMC "recovers" and is Retained (17.31) with all wound effects removed [EXC: if playing a CG with weekly Missions (17.21) he is Retained only on a dr of ≤ 2]. Otherwise the SMC is removed (17.32) from the company OB; such a removed leader SMC is subject to Replacement (17.81). Each still-Retained hero must be eliminated in 17.74.

17.622 *WEAPONS:* Each Retained broken Weapon is automatically repaired. Each Low/depleted ammunition type is replenished.

17.623 *REARMING:* Each Retained unarmed MMC is automatically replaced with an equivalent-size FRIENDLY MMC of the same Class and type (A1.25) of MMC it was before it became unarmed. If this cannot be recalled, substitute a Conscript (or Green, depending on nationality) MMC type of the appropriate size.

17.7 *COMPANY IMPROVEMENT:* At this point the player has determined all of his company's surviving Directly Attached units/Weapons. Perform the following steps (17.71-.75) in the order presented to determine units eligible to Battle Harden.

17.71 *FANATIC PROMOTION:* Each remaining FRIENDLY Fanatic unit now takes a NTC. Passage of the NTC enables that unit to immediately Battle Harden (A15.3); otherwise there is no effect. Regardless of the outcome, each Fanatic marker is now removed.

17.72 *HEROIC LEADER PROMOTION:* Each remaining heroic leader has his Hero counter removed and is automatically Battle Hardened [EXC: there is no effect if the leader is already the best possible type for that nationality, or is a 10-0 commissar].

17.73 *LEADER PROMOTION/DEMOTION:* If the FRIENDLY side won the last Mission the player may now determine, by Random Selection (A.9) from among *all* eligible Retained company leaders (a leader is considered eligible if he can be replaced by a better type leader *and* he was on-map for ≥ one complete Game Turn during the previous Mission), the leader(s) "up for" promotion. Make a Promotion dr for each such selected leader: on a Final dr of ≤ 4 the promotion "comes through" (the leader is immediately Battle Hardened). Reverse the leader's current leadership DRM as a drm for his Promotion dr.

On the other hand, if the FRIENDLY side lost the last Mission due to withdraw (as per 12.5) [EXC: if instructed to by FRIENDLY RE 74], the best rated FRIENDLY leader is "demoted" to the next lowest type on a dr ≥ 4 (only one leader per Mission can be so demoted even if > one leader qualifies as "best"). If all FRIENDLY leaders are already the lowest type there is no effect.

17.74 *SQUAD SEASONING:* Regardless of which side won the last Mission, the player may now make a dr on the following Squad Seasoning Table to determine if any of his Retained MMC (that entered play in the previous Mission) are Battle Hardened [EXC: no dr is made if all Retained MMC are elite]. The result is the number of non-elite MMC, of the player's choice, that may immediately Battle Harden (A15.3). [A15.3 EXC: In *SASL*, a Directly-Attached Russian 4-2-6 always Battle Hardens to a 4-4-7, never to a 5-2-7]. Note that each still-Retained hero must be eliminated in this step, but does result in a beneficial drm on the table.

SQUAD SEASONING TABLE

Final dr	Result
≤ 2	2
3-4	1
≥ 5	0

Cumulative drm:

–1 If FRIENDLY side won the last Mission

–1 Per hero eliminated during this step

+1 If CG VP score (17.51) is negative

+2 If FRIENDLY side withdrew (12.4) during the last Mission [EXC: if dictated by FRIENDLY RE 74; 17.51]

17.75 *RECOMBINE:* Retained same-class HS must now be Recombined (A1.32) so that no > one HS of each class is Retained [EXC: a number of HS may be Retained not to exceed the number listed in the current company's OB; 18.5].

17.8 *COMPANY REPLACEMENTS:* If the player's company is not currently at full strength (as listed for that nationality and for that company type; 18.) the following steps (17.81-.84) are performed in the order presented to determine if any replacement unit(s)/Weapon(s) are received. Each such replacement received becomes Retained in the company's OB.



17.81 *COMPANY LEADERS:* Make a dr on the following table for each leader the company is missing (this table is also used to generate each original leader for the CG company). Apply drm as applicable. Reroll if such a leader is not available in your countermix.

COMPANY LEADER TYPE

Final dr	Type
≤ 0	9-2
1	9-1
2-3	8-1*
4-5	8-0*
6	7-0
≥ 7	6+1

Russian drm:	German drm:	U.S. drm:
–1 1945	–1 1939-42	+1 pre 8/43
+1 1941-9/42	+1 8/44-45	
+2 1939-40		

"Generic" drm:
–1 if Company's Majority Squad Type is elite
+1 if Company's Majority Squad Type is conscript/green

* If the FRIENDLY side is pre-11/42 Russian *and* if no Commissar is currently Retained, a just-generated 8-1 leader may be immediately exchanged for a 10-0 Commissar (or a just-generated 8-0 may be exchanged for a 9-0 Commissar) on a Subsequent Final DR of ≤ 3. There is a –1 DRM per Retained Conscript squad.



17.82 *SQUAD/HS REPLACEMENT:* First determine the number of squads that a company of the player's type and nationality should have at full strength (18.2) depending on the date of the *next* Mission to be played. If the number of Retained squads/HS-equivalents is currently < this number by ≥ one squad make a DR on the following Squad Replacement table to determine if squad/HS replacement(s) are granted. The result is the number of replacement squad/HS unit(s) received. Replacement units in excess of the number needed to bring the company OB up to full strength are forfeit. A HS can be selected in lieu of a squad (and Recombined with an already Retained eligible HS) to complete the company OB. The class/type of each Replacement squad/HS is determined in 17.821.

SQUAD REPLACEMENT TABLE

Final DR	Result
≤ 0	4
1	3
2-3	2
4-5	1
≥ 6	0

Cumulative DRM:
–1 Per full squad (> one) the company OB is short of full strength, for the next Mission's date

17.821 *MMC REPLACEMENT CLASS/TYPE:* To determine the type of each Replacement Squad/HS granted in 17.82 make a dr on the Line Company MMC-Type Replacement Table (make a separate dr for each MMC):

LINE COMPANY
MMC-TYPE REPLACEMENT TABLES

Final dr	Type
≤ 0	Elite[2]
1-4	First Line[1]
5	Second Line[2]
≥ 6	Conscript/Green

Cumulative drm:
–1 If ≥ 50% of Personnel (in US#) of current CG Company OB is elite
–2 If Company is "Elite" type (e.g., Paratrooper, SS, Guards, Ranger)

Russian drm:	German drm:	U.S. drm:
–1 6/44-1945	–2 1939-41	–1 1945
+1 1939 or 1942	–1 1942	+1 1942-43
+2 1941	+1 1945	

[2] Must be the type that a listed MMC of that Company OB would become if it were to BH.
[1] Must be the same type as listed in that Company's OB.
[2] Substitute Conscript or Green MMC (depending on nationality) if Second Line not available.



17.83 *SW TEAM REPLACEMENT:* Make a dr for each ATR/MTR/PSK/BAZ Retained with no manning SW Team: an Original dr of ≤ 4 results in the SW Team being replaced, otherwise there is no effect [EXC: The SW Team cannot be replaced if that SW is no longer listed in the *current* company OB]. See also 17.84.



17.84 *WEAPON REPLACEMENT:* Make a replacement dr for each Weapon the company is missing; compare your Retained company OB to what is listed for a same-type full-strength company of the FRIENDLY nationality (18.2) for the next Mission's date. On an Original dr of ≤ 4 replacement occurs; on an Original dr of ≥ 5 there is no effect. Each ATR/MTR/PSK/BAZ replaced without an already-Retained SW Team to man it automatically receives an accompanying replacement SW Team.

17.9 *REST & REFIT:* If, after all replacements are received, the player's company is at < 70% (FRD) of its full strength *in total US#* (A1.6) for the next Mission, the company is temporarily "withdrawn from front-line service" in order to rebuild. The Mission for the next month (week) must be skipped and steps 17.82-.9 are repeated until the company is at ≥ 70% strength. Each such repetition of this process is considered the passage of one month (week). To aid in this calculation, each company's full- and 70%-strength US#, respectively, is given in brackets after the company's eligible date period (18.21). For each month (or week) thusly skipped, the FRIENDLY player loses 1 CG VP.[13]

18. FRIENDLY COMPANIES

18.1 *CAMPAIGN COMPANIES:* In the *SASL* CG the player assumes the role of "commander" of one of the following basic "Infantry" company types. Each unit/Weapon listed in a company's OB is considered Directly-Attached to that company (17.131). All other FRIENDLY units that enter play during the course of a Mission are Temporarily Attached (17.132) [EXC: a hero/leader created from a Directly Attached unit; 17.131].

18.2 *DATE VARIATIONS:* During the course of the war the OB of each nationalities' basic Infantry (aka Rifle) Company was at times reorganized, not only due to attrition, or as a response to enemy reorganizations, but also to incorporate new or improved Weapons (and to phase out obsolete ones). Therefore, each nationality has several Infantry/Rifle Companies listed. The proper company to use depends on the date of the current Mission of the CG (17.21).

18.21 *US#:* Each company's full- and 70%-strength (FRD) US#, respectively, is given in brackets after that company's eligible date period (see 17.9).

18.3 *STARTING COMPANY LEADERS:* Make a separate dr on the Company Leader Type table (17.81) for each leader listed in a company's OB.

18.4 *EXCESS:* Units/Weapons in excess of the current full-strength OB (for the next Mission's date) must be eliminated; player's choice.

18.5 *CG COMPANY OBs:* The following OBs are historical WW2 company OBs specially adapted for the ASL system.[14]



GERMAN INFANTRY COMPANY 1939-August 1943 [US#: 55/38]
Leader × 3; 4-6-7 × 12; 2-4-7 × 2; 1-2-7 × 6; HMG; MMG; LMG × 4; 50mm MTR × 3; ATR × 3

GERMAN INFANTRY COMPANY* September 1943-1945 [US#: 42/29]
Leader × 3; 4-6-7 × 9; 2-4-7 × 2; 1-2-7 × 2; 2-2-8 × 2; HMG; MMG; LMG × 4; PSK × 2; 81mm MTR × 2

* Panzerfausts become available in October 1943 (C13.3).



RUSSIAN RIFLE COMPANY 1939–November 1941 [US#: 50/35]
Leader × 2; 4-4-7 × 12; 2-3-7 × 2; 1-2-7 × 4; HMG; MMG; LMG × 4; 50mm MTR × 2; ATR × 2

RUSSIAN RIFLE COMPANY December 1941–June 1942 [US#: 35/24]
Leader × 2; 4-4-7 × 9; 2-3-7; 1-2-7 × 2; MMG; LMG × 4; 50mm MTR; ATR

RUSSIAN RIFLE COMPANY July–November, 1942 [US#: 50/35]
Leader × 2; 4-4-7 × 12; 2-3-7; 1-2-7 × 5; MMG; LMG × 4; 50mm MTR × 3; ATR × 2

18.5

RUSSIAN RIFLE COMPANY* December 1942–1945 [US#: 48/33]
Leader × 2; 4-4-7 × 12; 2-3-7; 1-2-7 × 4; HMG; LMG × 4; 50mm MTR × 2; ATR × 2

* If ≥ 60% of the US# of all Retained MMC of this Company are elite *and* if the player's CG VP score is currently positive (17.51), the company is awarded Guards status for the remainder of the CG. The company's OB is considered to have "2-4-8 × 2" and "HMG × 2" (rather than "2-3-7 × 1" and "HMG × 1", respectively). Furthermore, in the Russian's Squad-Type Replacement Table (17.821), results of "4-4-7" become "4-5-8", and results of "4-2-6" become "4-4-7".



U.S. RIFLE COMPANY 11/1942–1945 [US#: 48/33]
Leader × 3; 6-6-6 × 9; 3-4-6 × 3; 1-2-6 × 6; 50 Cal. HMG; MMG × 2; M2 60mm MTR × 3; BAZ* × 3

* Each Retained bazooka is automatically exchanged for the latest type available.

FOOTNOTES:

CHAPTER S FOOTNOTES:

[1] *2.11 MARKING THE RE NUMBERS:* When playing a *SASL* Mission, it is intended that the Chapter J/K divider's "Scenario Aid Card" be used in conjunction with the Chapter S divider. Place the Chapter J/K divider so that the "ASL Scenario Aid Card" covers the top portion of the Chapter S divider, being careful to keep the RE# and AC# tracks (as well as the boxes labeled "RETAINED" and "ELIMINATED" for storage of *SASL* CG Directly Attached units) visible.

[2] *3.3 S? CONDUCT & ACTIVATION:* As each FRIENDLY unit changes Locations (or expends MF/MP within the same Location), it is critical that you, the player, be aware of each S? with a LOS (even if potential; see S.2) to that moving/advancing FRIENDLY unit. It is important to the *SASL* system that a S? is checked for Activation *as soon as it is eligible*, but especially so due to the movement/advance of a FRIENDLY unit. Remember, you are also the "eyes" of the ENEMY. However, being human, it is almost inevitable that you will miss a chance for a S? to check for Activation (just consider it one of those fortunate times that your opponent was not paying full attention)...just don't let it happen too often.

[3] *4.3 S? ENTRY IN HUMAN WAVE:* The *SASL* Human Wave rules (4.3-.37) have been printed on a grey background color, as they have limited applicability and need only be read when such a need occurs.

[4] *5.754 BSK/PSK BACKBLAST:* Any Weapon that can cause a Backblast (including a PF) should rarely be used from a building/bunker Location where its usage could cause harm to ENEMY unit(s) therein.

[5] *9.3 ENEMY VEHICLES:* If a problem arises concerning an ENEMY vehicle's Move Command the player should improvise (as necessary) to the best advantage of the moving vehicle. However, in doing so, you should still try to carry through with the "intent" of the Move Command.

[6] *12.2 MISSION SELECTION:* For a more historical game, you are invited to do some research to find out what the selected FRIENDLY nationality (or perhaps the specific unit that your FRIENDLY force is simulating) was historically doing on the selected Front during the current time period. Unit histories of various military formations, available in many public libraries, will prove most useful. Too, new *SASL* Missions may become available in future Avalon Hill publications.

[7] *13.22 DETERMINE MAPBOARD:* Keep on the lookout for periodic updates of Table A9 and A10a in the *ASL Annual* as new *ASL* mapboards become available.

[8] *13.6 RIVER BOARD:* Table A9a will require updating if additional river/canal mapboards become available.

[9] *16.31 DRM:* U.S. Infantry MMC are given a special –1 drm due to offset thir lower morale rating.

[10] *17.131 DIRECTLY ATTACHED:* You may wish to make photocopies of the *SASL* Campaign Game Roster (found on the Chapter S divider), as it is intended that one will be used for *each* CG Mission played. In this way you can easily record all FRIENDLY Directly Attached units/Weapons that you begin and end each Mission with, in addition to any replacements received between CG Missions. Instead of recording ID numbers of units, one could alternatively use low-lettered (or single lettered) units for Directly Attached units, and high-lettered (or double-lettered) units for Temporarily Attached units (as long as several letters between the two types are not used).

[11] *17.1321 VP VALUE:* Non-Russian Temporarily Attached units/weapons are given an enhanced Casualty VP value so the player does not consider such as unnecessarily "expendable", since they will not return to the company OB even upon survival of the Mission. Conversely, the value of Russian Temporarily Attached units/weapons are *not* increased due to the Russian philosophy of regarding such units as "expendable".

[12] *17.14 SW TEAM:* A SW team represents a pair (or more) of men who have received special training in operating one of the specified types of SW.

[13] *17.9 REST & REFIT:* Your company is needed fight every day. Each time it is withdrawn to Rest and Refit, however temporarily, it taxes the resources of your parent division, forcing a reserve unit to take your company's place, or (worse yet) a neighboring unit to spread itself thinner in order to cover your sector.

[14] *18.5 CG COMPANY OBs:* It is anticipated that more historical company OBs will become available at a later date, possibly through the *ASL Annual* or as a separate release.

Solitaire ASL CREDITS

DESIGN & DEVELOPMENT: Charles Kibler
HISTORICAL RESEARCH: Bob McNamara, Charles Kibler
MISSIONS: Charles Kibler, Frank Calcagno, Robert Orf, David Belado
COVER ART: Kurt Miller
GRAPHICS: Charles Kibler
CHAPTER LOGO: Steve Porter, Bob McNamara, Charles Kibler
PLAYTESTERS: Richard Hill, Frank Calcagno, Steve Porter, Ian Daglish, Richard Eichenlaub, Robert Orf, Tom Padgett, David Belado, John Brock, Richard Spilky
TYPESETTING: Charles Kibler
PREP DEPT. COORDINATOR: Lou Velenovsky
PRODUCTION COORDINATION: Phyllis Opolko
PRINTING: Monarch Services, Inc.

© 1995 **The Avalon Hill Game Company** • All Rights Reserved • Printed in USA

8239001

Basic Tables

A1: ENEMY Activation Table (5.6)

Final DR	Item(s) Activated
≤ 1	AFV[1], S[2]
2	AFV[1]
3	S, S, L, F[6], SW
4	S, L, F[6], SW
5	S, L, SW
6	S
7	–
8	HS[3]
9	S
10	S, S, L
11	S, HS[3]
12	HS[3], Gun[5]
13	SPG[4]
14	S, F[6], Gun[5]

Cumulative DRM:
–1 if S? was in Advance Attitude
± y as per MSR

Footnotes:
[1] SPG (x6a) on subsequent dr of ≤ two [EXC: ENEMY nationality has no SPG table]. See 5.61 if Activated in Prohibited Location.
[2] Squad is a Rider if possible (depending on date, nationality and final vehicle type; D6.2).
[3] Squad if ENEMY nationality may not Deploy.
[4] Consider this as a Gun result (x5) if the respective Enemy nationality has no SPG Table (x6a).
[5] See 5.761 if being Activated in a building Location; see 5.61 if Activated in Prohibited Location.
[6] SMOKE if in MPh of Advance Attitude S? (5.74); otherwise NE.

A2: ENEMY Action Tables (6.2)

A2a: Advance Attitude

DR	Action
doubles	Panic[1]
2-7	Move[2]
8-10	Fire[3]
11	Entrench[5]

A2b: Hold Attitude

DR	Action
doubles	Panic[1]
2-4	Move[2]
5-9	Fire[4]
10-11	Entrench[6]

Footnotes:
[1] An Elite unit Panics on each doubles DR of ≥ 10; a 1st Line unit Panics on each doubles DR of ≥ 6; a 2nd Line or Partisan unit Panics on each doubles DR of ≥ 4; a Conscript or Green unit Panics on *all* doubles DR (6.21-.213).
[2] An Immobile armed vehicle Fires if it has a Target; otherwise it does nothing (6.22-.222).
[3] Move if the unit has no Target (6.23).
[4] If no Target exists a non-Immobile armed vehicle Moves or an Infantry MMC attempts to Entrench if it is in an eligible Location and is not already Entrenched. Otherwise the unit does nothing (6.23).
[5] A non-Immobile armed vehicle Moves; an Infantry MMC with a Target Fires if already entrenched, or Moves if not in an eligible Location in which to Entrench or if no Target exists (6.24).
[6] A non-Immobile armed vehicle Fires; an Infantry MMC with a Target Fires if already entrenched *or* if not in an eligible Location in which to Entrench, or Moves if no Target exists (6.24).

A5: Fortification Table (5.74)

Final dr	Fortification Type
≤ 0	x+5+7[1]
1	x+3+5[1]
2-4	Entrenchment[1,2]
≥ 5	Nothing

Cumulative drm:
+x As per RE instructions
+y As per MSR
–1 Any MMC is elite
+1 All MMC are Conscript

[1] The capacity of the fortification equals the number of ENEMY MMC just generated in the fortification's Location.
[2] Trench is generated if ADJACENT to an already-generated Pillbox/Trench or if a Gun is also being Activated in the Location; otherwise use a Foxhole of the proper capacity (see this table's footnote 1).

Advance-into-CC/Melee NTC Cumulative DRM (S11.4)

Successful TC by unpinned, Good Order Activated ENEMY unit [EXC: if possessing a functioning non-Captured HW or in an IP] results in the unit advancing into Accessible CC/Melee Location (S11.4).

–2 If the FRIENDLY unit(s) is in a VPO Location
–1 The ENEMY unit is in Advance Attitude
–1 Per pinned/Panicked FRIENDLY unit in the Location
–1 Per FRIENDLY unit in the Location possessing a HW
–1 per ENEMY unit already in/entering the Location
±x DRM of same-Location leader that has already passed his NTC
+2 If any FRIENDLY unit in the Location is concealed

Priority List: Into FRIENDLY-Controlled VPO Location; Location with FRIENDLY AFV (if ≥ one, easiest to kill); Location with smallest (in US#) Known FRIENDLY Infantry unit; Location with FRIENDLY MMC easiest to kill; Location where Ambush is possible; Location with highest inherent TEM.

A8: Terrain Selection Tables (13.21)

A8a: Standard

DR	Column
2	City
3-5	Village
6-7	Farmland
8-9	Rural
≥ 10	Hills

A8b: Urban

DR	Column
≤ 5	City
≥ 6	Village

A8c: Country

DR	Column
≤ 6	Farmland
7-9	Rural
≥ 10	Hills

A8d: Country

DR	Column
≤ 5	Village
6-8	Rural
≥ 9	Farmland

A8e: Country

DR	Column
≤ 4	Village
5-7	Farmland
8-9	Rural
≥ 10	Hills

A9: Random Mapboard Selection Tables (13.21)

ALIGNMENT: board number towards north on dr of ≤ 3 (13.23)

TERRAIN COLUMNS (13.22)

DR	City[1]	Village[1]	Farmland	Rural	Hills
1	c1	v3	19	43	w39
2	c22	v24	38	37	9
3	c1	v10[2]	17	18	2
4	c1	v12	43	14	v3[1]
5	c20	v41[2]	6	13	18
6	c21	17	4	w32	11
7	c22	v3	16	19	2
8	c21	v42	33	w5	v15
9	c23	v12[2]	11	w34	w39
10	c20	v41	13	17	9
11	c20	v15	35	38	w36
12	c23	v8[3]	7[3]	40[3]	v8[3]

MAPBOARD TYPES:
"c" prefix: "City" mapboard (4.12; see also 13.26 for Factory)
"v" prefix: "Village" mapboard (4.12)
"w" prefix: "Woods" mapboard; see 4.13 for S? placement EXC

Footnotes:
[1] See 4.12
[2] If in Russia, all buildings are wooden and roads are unpaved
[3] See 13.6 & 14.12

A9e: Built-Up Map* S? Placement (4.12)

Final dr	Placement Location(s)
0	Ground & First level
1	Ground level
2	First level
3	none
4	Each level [EXC: rooftop; sewer]
5	Second level
6	Ground & Second level

drm:
–1 If on a "Village" mapboard ("v" prefix on any column of Table A9)

Note:
* Each mapboard with a "c" or "v" prefix on any column of Table A9 is a "Built-Up" mapboard (4.12).

A9a: Multi-Hex Bridge (13.6)

dr	Hexrow Location
1	I/Y/AA* *and* Q
2	I/Y/AA*
3	I
4	Q
≥ 5	none

* I if board 40; Y if board 8; AA if board 7

A9b: Multi-Hex Bridge Construction (13.6)

dr	Construction
≤ 1	Two-lane stone
2	Two-lane wooden
3	One-lane stone (B6.43)
4	One-lane wooden (B6.43)
5	Vehicular pontoon (B6.41)
6	Foot bridge (B6.44)

drm: –1 Per three hexes of the span (FRD).

A9c: One-Hex Bridge (13.5)

dr	Result
≤ 4	Functioning
≥ 5	Destroyed (B6.331)

A9d: One-Hex Bridge Type (13.5)

Final dr	Result
≤ 2	Two-lane stone
3	One-lane stone (B6.43)
4	Two-lane wooden (B6.42)
≥ 5	One-lane wooden (B6.42-.43)

drm: –1 On a village mapboard (19–49 buildings)
–2 On a city mapboard (≥ 50 buildings)

A6: Random Number Tables

Table a		Table b		Table c		Table d		Table e		Table f		Table g		Table h	
dr	#	dr	#	dr	#	dr	#	dr	#	dr	#	dr	#	dr	#
≤ 1	4	≤ 3	3	≤ 2	3	≤ 1	3	≤ 3	2	≤ 1	3	≤ 2	2	≤ 2	0
2-3	3	4-5	2	3-4	2	2-3	2	≥ 4	1	2-5	2	≥ 3	1	3-5	1
≥ 4	2	≥ 6	1	≥ 5	1	≥ 4	1			≥ 6	1			≥ 6	2

A4c: All Attitudes ENEMY Vehicle Movement Table

DR Move Command

≤ 4 If on road and no Known Target exists move along road toward FBE. Stop (ESB if necessary) when a Known Target exists; otherwise remain CE and in Motion. If on road and Known Target exists see Move Command 5-6. If not on road see Move Command 5-6.

5-6 If no Known Target exists move along road toward FBE; otherwise REH as necessary. Stop when Known Target exists; otherwise remain in Motion. If closest Target is ≥ 7 hexes distant move toward it, stopping (MP permitting) when such is in LOS at ≤ 6 hexes [EXC: if a different Known Target becomes closer during the process of movement, stop and bear on it instead]. If closest Target is at 3-6 hex range move to within 2 hexes of it and stop (MP permitting). If closest Target is ≤ 2 hexes away OVR it (in OG; non-bog terrain; least TEM). If such a Target cannot be OVR select an OVR-able alternate Target and attempt to OVR; if OVR not possible do not move the vehicle (fire in the AFPh).

7 Move toward nearest (in MP) FRIENDLY-Controlled VPO Location; stay on road if applicable. Stop when within 3 hexes of such Location if Target exists in/adjacent to that Location. If already within 3 hexes of such Location continue to move toward that Location, entering it (OVRing if possible) if Bog DR not required; otherwise stop when ADJACENT to it. If already in/ADJACENT-to such a Location see Move Command 5-6.

8 If Known Target exists see Move Command 5-6. If no Known Target exists move toward the FBE, expending double the normal MP cost for each hex-entered/hexside-traversed [EXC: if cost is ≥ 3 MP]. Remain on road (if already on such or upon entering a road hex). Stop (ESB if necessary) upon entering Location if Target exists therefrom; otherwise remain in Motion.

9 If on road and no Known Target exists see Move Command 4; if off road and no Known Target exists see Move Command 5-6. If any vehicular Target exists see Move Command 10. If all Targets are non-vehicular conduct OVR (MP permitting) using the following Priority List: closest; least TEM vs OVR; non-Bog Location; Location with most Infantry Targets (in US#). If insufficient MP to conduct OVR see Move Command 5-6.

≥ 10 If no Known Target exists see Move Command 7; if Known non-AFV Target(s) (only) exists see Move Command 5-6. If any AFV Target exists move so as to get a side or rear shot on the nearest such AFV; stop and (if possible) use Bounding First Fire as soon as a side or rear shot is possible; if any AFV Target remains in Good Order start again (MP permitting); attempt to leave all such Targets' LOS; otherwise remain in Motion. If no side/rear shot has been attained after expenditure of last MP remain in Motion. If side/rear shot exists at start of MPh use Bounding First Fire before starting.

A3: ENEMY Attack Tables (8.1)

A3a: ENEMY IFT Attacks vs Infantry/PRC



DR	Fire Command
≤ 3	Fire all possible Spray Fire FP at closest Target; least TEM; most Targets; Target(s) possessing most SW/Guns; most Target SMC. Fire any non-Spray FP at Target in least TEM; Location with most Target SMC; closest; most Targets; combine with Spray Fire if necessary. If spray fire not possible (for whatever reason) fire all FP at closest Target; Location with most Targets; most SW; least TEM.
4	Fire all FP at closest PRC Target; PRC with least TEM; PRC with most SW. If no PRC Target exist fire all FP at any vehicular Target; otherwise fire inherent FP at closest Target; least TEM; Location with most Targets; most SW; most Good Order Targets. **SW:** Fire any SW at Target in least TEM; Location with most Targets. Combine with inherent FP if necessary.
5	Fire all FP at closest Target in VPO Location; at closest Known Target; Location with most Known Targets; least TEM; most Known Target SMC. If no Known Target exists fire at closest concealed Target; least TEM; stack with most Infantry counters.
6	Fire all FP at Target in least TEM in maximum (long) range of firer's inherent FP; closest; Location with most Known Targets; most Target leaders; most Weapons; most Good Order Targets.
7	Fire all FP at closest Target in VPO Location; at unbroken Target in least TEM in normal range of firer's inherent FP; closest; most SW. If no unbroken Target exists in firer's normal range conduct Fire Command 5.
8	Fire all FP at Location with most Targets within normal range of firer's inherent FP; least TEM; most SW. If no such Target exists extend range to firer's maximum (long) range with the same priorities.
9	Fire all inherent FP at Location with most Known Targets; least TEM; closest; most Target SMC; most SW; most Good Order Targets. **SW:** Fire SW at Target in least TEM; most Targets; closest. Combine with inherent FP if necessary.
10	Fire inherent FP at closest Known Target; most Known Targets; least TEM; most Good Order Targets; most Weapons; most Target SMC. If no Known Target exists fire at concealed Target with same priorities. **SW:** Fire SW at Target in least TEM; closest; Location with most Targets; most Target SMC. Combine with inherent FP if necessary.
≥ 11	Fire all FP at closest Target; most Known Targets; most SW; most Target leaders; least TEM.

A3b: ENEMY Infantry with LATW vs Vehicular Target



Use this table to determine a vehicular Target when multiple FRIENDLY vehicles exist for an ENEMY Infantry unit possessing any type of functioning LATW (including a functioning MG with a vehicular Target; A9.6-.961). In all cases below, if unable to kill the FRIENDLY vehicle attempt Deliberate Immobilization if possible (8.24); otherwise the LATW does not fire.

DR	Fire Command
≤ 4	Fire at closest Target vehicle; easiest to kill; easiest to hit.
5-6	Fire at easiest to kill Target vehicle; largest; closest.
7	Fire at easiest to hit Target vehicle; easiest to kill; closest; largest.
8-9	Fire at easiest to kill Target vehicle offering a rear or side shot; closest; easiest to hit.
≥ 10	Fire at easiest to hit Target vehicle offering a rear or side shot; easiest to kill; closest; largest.

A3c: ENEMY Ordnance vs Vehicular Target



Use this table to determine the vehicular Target of an ENEMY Ordnance Weapon; make a separate DR for any SA. Unless stated otherwise, Table A3a to determine the Target of any non-Ordnance weapon (i.e., MG armament) of the unit.

DR	Fire Command
≤ 3	Fire at closest Target vehicle; easiest to kill; largest.
4-5	Fire at closest Target vehicle; possessing MA with a mm-size > firer's own; largest; easiest to hit; easiest to kill.
6	Fire at closest Target vehicle; easiest to hit; easiest to kill; largest.
7-8	Fire at easiest to kill Target vehicle; closest; easiest to hit.
9-10	Fire at easiest to hit Target vehicle; easiest to kill; closest.
≥ 11	Fire at Target vehicle with any Riders; with any Passengers; with any CE crew; easiest to hit; easiest to kill; largest Target; most Known SMC; most counters (units/Weapons).

A3d: ENEMY Ordnance vs Infantry/PRC Target



Use this table to determine the Infantry/PRC Target of an ENEMY Ordnance Weapon; use Direct Fire if possible. Use Table A3a to determine the Target of any non-Ordnance weapon (i.e., MG armament) of the unit.

DR	Fire Command
≤ 4	Area Fire at building hex with most Known Targets; easiest to hit; closest; most Known SMC; most Known possessed ATW. If no such building hex available Area Fire at closest Target; least TEM; most Known units; most SMC; most Weapons.
5-6	Fire at closest Target in VPO Location; at Location with most Known Targets; most Known SMC; most Known Weapons; easiest to hit. If no Known Target available Area Fire at closest concealed Target; easiest to hit; most counters (units/Weapons).
7	Fire at closest Target; easiest to hit; least TEM; most Known units; most Weapons.
8-9	Fire at closest Target; most Known units; easiest to hit; most Known Weapons; least TEM.
≥ 10	Area Fire at hex with most Targets; closest; least TEM; easiest to hit; most Known Targets; most Known SMC; most counters (units/Weapons).

A3e: ENEMY CC Attack Determination Table (11.5)

dr	Target
≤ 2	Combine all ENEMY units into one CC attack vs one FRIENDLY unit (use Random dr to select).
3-4	Match each ENEMY unit vs one FRIENDLY unit using the following Priority List: best odds; highest FRIENDLY morale (ignore excess FRIENDLY units).
≥ 5	Combine all Enemy units into one CC vs all FRIENDLY Personnel units.

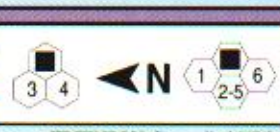
A4: ENEMY Movement Tables (9.2)

A4a: Hold Attitude ENEMY Infantry Movement Table



DR	Move Command
2	Assault Move toward nearest VPO Location; toward nearest Infantry Target; towards nearest Target.
3	Assault Move into higher (building) Location (if possible) if Target exists therefrom; Assault Move toward nearest Target in LOS; into Location with TEM > TEM of current Location; toward nearest building Location in LOS; otherwise see Move Command 7.
4	Assault Move toward nearest FRIENDLY-Controlled VPO Location in LOS; toward nearest FRIENDLY-Controlled VPO Location; toward nearest VPO Location; toward FBE; into best TEM.
5	Assault Move into Location with TEM > TEM of current Location; into Location with any positive inherent/hexside TEM with Target available therefrom; into any Location with positive TEM; random direction.
6	If any Good Order FRIENDLY unit in LOS see Move Command 5; otherwise see Move Command 11.
7	Move full MF, RAS. Stop upon entering any Location with positive TEM if a Known Good Order Target exists, or stop upon entering any (previously) FRIENDLY-Controlled VPO Location.
8	If in LOS and range of Known Good Order FRIENDLY unit Assault Move into Location with best TEM; any positive TEM; with most Targets available therefrom. If not within a Known Good Order FRIENDLY unit's range and LOS move full MF toward closest building Location in LOS; building Location with best TEM. Stop upon entering any Location with positive TEM if a Known Good Order Target exists, or stop upon entering any (previously) FRIENDLY-Controlled VPO Location.
9	Move full MF toward nearest FRIENDLY-Controlled VPO Location in LOS; not in LOS. Stop upon entering a VPO Location or by expenditure of all MF.
10	If ≥ 3 Good Order Targets exist Assault Move into Location with best TEM; out of FRIENDLY LOS. If ≤ 2 Good Order Targets exist Assault Move toward closest Target; into best TEM; out of most FRIENDLY units' LOS. If no Good Order Target exists move full MF, RAS. Stop upon entering any Location with positive TEM, or any VPO Location, if a Known Good Order Target exists.
11	Move toward nearest FRIENDLY-Controlled VPO Location in LOS; otherwise one not in LOS but closest (in hexes). Double Time if necessary. Stop upon entering a VPO Location or by expenditure of all MF.
12	If Known FRIENDLY unit in LOS the unit(s) goes berserk! Immediately invoke all berserk rules; see A15.41 if the unit is a leader. If no Known FRIENDLY unit in LOS see Move Command 10.

A4b: Advance Attitude ENEMY Infantry Movement Table



DR	Move Command
2	Assault Move into Location with best TEM; toward nearest FRIENDLY-Controlled VPO Location.
3	Assault Move toward nearest (in hexes) FRIENDLY-Controlled VPO Location in LOS; if no such Location in LOS see Move Command 5.
4	If ≥ 2 Known Good Order FRIENDLY units in LOS see Move Command 2; otherwise move full MF toward nearest FRIENDLY unit in LOS; if no FRIENDLY unit in LOS move full MF (REH), stop upon entering any Location with inherent TEM of ≥ +1, or any VPO Location.
5	If any Known FRIENDLY unit in LOS Assault Move into Location with best TEM; with most Targets available therefrom. If no Known FRIENDLY unit in LOS Double Time (if necessary/possible), RAS; stop upon entering a Location with inherent TEM of ≥ +1 if Known FRIENDLY unit is in LOS.
6	Move full MF, RAS.
7	Move full MF toward nearest (in hexes) FRIENDLY-Controlled VPO Location; stop upon entering a VPO Location, or any Location with a TEM of ≥ +1, if Target available.
8	Move full MF, REH; stop upon entering a building Location if Target available.
9	Double Time (if necessary/possible) toward nearest FRIENDLY-Controlled VPO Location. Stop upon entering a VPO Location, or any Location with TEM of ≥ +1, if a Known FRIENDLY unit in LOS.
10	If Known Target exists Assault Move into Location with best TEM; with most Targets available therefrom. If no Known Target exists move full MF, RAS; stop upon entering building Location if Known Target exists therefrom.
11	Double Time (if possible), REH. Stop upon entering Location with TEM of ≥ +2 if Target available.
12	If Known FRIENDLY unit in LOS the unit goes berserk! Immediately invoke all berserk rules; see A15.41 if the unit is a leader. If no Known Target exists see Move Command 10.

German Generation Tables

G1: ACTIVATION CHECK (AC) (5.1)

German-ENEMY S? rolls for Activation if…

A) FRIENDLY Infantry is in LOS within 12 hexes with a Final IFT DRM of ≤ –2
B) FRIENDLY Infantry is in LOS within 8 hexes with a Final IFT DRM of ≤ –1
C) FRIENDLY Infantry is in LOS within 6 hexes with a Final IFT DRM of ≤ 0
D) FRIENDLY Infantry/Unarmored-vehicle is in LOS within 4 hexes with a Final IFT DRM of ≤ 1
E) FRIENDLY Infantry/Unarmored-vehicle/CE-AFV is in LOS within 2 hexes with a Final IFT DRM of ≤ 2
F) Any FRIENDLY unit is ADJACENT

G2: SQUAD (5.72)

Final DR	Squad Type
≤ 3	4-6-8
4	6-5-8*
5	5-4-8
6-8	4-6-7
9-10	4-4-7
≥ 11	4-3-6

DRM:
–1 If date is 1939-8/43
+1 If date is 1945

* See 12.22

G3: LEADER (5.73)

Final DR	Infantry Leader	Armor Leader
≤ 1	10-3	10-2
2	10-2	9-2
3	9-2	9-1
4	9-1	8-1
5-6	8-1	—
7-8	8-0	—
9	7-0	—
10-11	—	—
≥ 12	6+1	Inexp. Crew

Cumulative DRM:
–1 If date is 1941-8/43
–1 If any accompanying MMC are elite*
+1 If all accompanying MMC are Conscript*
–1 Partisan ENEMY (12.21)
–1 If date is 1945
* NA to armor leader generation DR

G4: SW (5.75)

DR	1939-42	1943	1944-45
2	LMG	LMG	LMG
3	ATR	ATR	PSK
4	LMG	LtMtr	—
5	ATR	ATR	LMG
6	LMG	MMG	HMG
7	—	LMG	LMG
8	MMG	—	PSK
9	LtMtr	HMG	MMG
10	HMG	LMG	MMG
11	LtMtr	PSK*	LtMtr
12	—	LtMtr	—

* Nothing if pre 9/43

G5: STANDARD GUN (5.76)

DR	1939-41 Inside	1939-41 Outside	1942-43 Inside	1942-43 Outside	1944-45 Inside	1944-45 Outside
2	37L AT	37L AT	75 AT	105 ART [1-4] 75 ART [5-6]	75 AT	88LL (PaK 43/41)AT[13]
3	37L AT	105 ART	28LL AT	81* MTR	75L AT	81* MTR
4	37L AT[1]	150* INF [1-2] 75* INF [3-6]	75L AT	88L AA	88LL (PaK 43) AT[2]	88LL (PaK 43) AT
5	37L AT[2]	37L AT[3]	76L AT	75L AT [1-3] 76L AT [4-6]	76L AT	37L AT
6	37L AT	75* INF	50L AT	50L AT	50L AT	75L AT
7	37L AT	37L AT	37L AT	37L AT	37L AT	50L AT
8	75* INF	37L AT	37L AT	150* INF [1-2] 75* INF [3-6]	75* INF	120* MTR [1-2] 81* MTR [3-6]
9	75* INF	88L AA [1-4] 37L(8) AA [5-6]	75* INF	75 AT [1-3] 40LL AT [4-6]	75L AT	150* INF [1-2] 75* INF [3-6]
10	75* INF[4]	81* MTR	75* INF	20L(6) AA [1-4] 20L(4) AA [5-6]	50L AT	88L AA [1-4] 37L(8) AA [5-6]
11	150* INF[5]	20L(6) AA [1-4] 20L(4) AA [5-6]	40LL AT	20L(20) AA [1-4] 37L(8) AA [5-6]	37L AT	20L(20) AA [1] 20L(6) AA [2-4] 20L(4) AA [5-6]
12	37L AT[6]	20L(20) AA [1-4][7] 105* MTR [5-6]	28LL AT	105* MTR[8]	50L AT	75 ART[9]

[1] 28LL AT if 6-12/41 [2] 75L AT if Pillbox Location [3] 50L AT if 1941 [4] 76L AT if 7-12/41 [5] 37L AT if building Location
[6] 75 AT if 9-12/41 [7] 88L AA if 1939-40 [8] 120* MTR if 1943 [9] 128L AT if 1945 [10] 37L AT if 1-5/44

G5a: AT GUN (5.76)

DR	1939-5/41	6-12/41	1942-43	1944-45
2	88L AA	88L AA	28LL AT	88LL PaK 43 AT[6]
3	88L AA	88L AA	75 AT	88LL PaK 43 AT
4	88L AA	76L AT[2]	88L AA	50L AT
5	37L AT	75 AT[3]	50L AT	50L AT
6	37L AT	37L AT	50L AT	88L AA
7	37L AT	37L AT	75L AT[4]	75L AT
8	37L AT	50L AT	37L AT	76L AT
9	37L AT	50L AT	37L AT	37L AT
10	37L AT[1]	28LL AT	76L AT	37L AT
11	37L AT[1]	28LL AT	40LL AT	75 AT[7]
12	37L AT[1]	28LL AT	28LL AT	88LL PaK 43/41 AT[5]

[1] 50L AT if 1941 [2] 50L AT if 6/41 [3] 37L AT if 6-8/41
[4] 28LL AT on subsequent dr of ≥ 5 if 1942 [5] 75 AT if 1-5/44
[6] 128L AT on subsequent dr of ≥ 3 if 1945 [7] 88LL PaK43 if '45

G6: STANDARD AFV (5.71)

DR	1939	1940	1941	1942	1-6/43	7-12/43	1-6/44	7/44-1945
2	Pz IIIF	PzJg I[1]	Pz IVE	SPW 250 sMG [1-3] SPW 251/2 [4-6]	StuG IIIB [1-2] SPW 251/16 [3-6]	SPW 251/16 [1-3] SPW 251/2 [4-6]	StuPz IV [1-3] PzA III/IV [4-6]	Pz VIB [1-3] JgPz IV(L) [4-6]
3	PSW 231/6R	Pz IVD	Pz IVD	Pz IVE [1-3] Pz IVD [4-6]	SPW 251/sMG [1-3] PSW 232/8R [4-6]	Pz VD[4] [1-3] SPW 251/sMG [4-6]	PzJg III/IV [1-3] PzA II [4-6]	JgPz IV [1-3] JgPz III/IV [4-6]
4	Pz IVA [1-3] Pz IIID [4-6]	Pz 35t	Pz IVF1	PzIVF1[5]	Pz IIIN [1-3] Pz IVH [4-6]	StuH 42 [1-3] Marder III(t)H [4-6][6]	Pz VIE(L) [1-3] Pz IIIH [4-6]	Pz VIE(L) [1-3] Pz IIIN [4-6]
5	Pz IVC [1-3] Pz 35t [4-6]	Pz IIF	Pz IIF	Marder III(t)M [1-3][7] Marder II [4-6][7/6]	StuH 42 [1-3] PSW 222 [4-6]	Pz IIIL [1-4] Pz IIIJ [5-6]	StuH 42 [1-3] SPW 251/9 [4-6]	JgPz IV/70 [1-3] StuH 42 [4-6]
6	Pz IIA	Pz IIA	Pz IIIG [1-4] Pz IIIF [5-6]	Pz IIIJ[2]	Pz IVF2	Pz IVF2	Marder III(t)M	Pz VG [1-3] Pz IVJ [4-6]
7	Pz IB	Pz IB	Pz IIIH	Pz IIIH	StuG IIIG	Pz IVH	Pz IVH [1-3] StuG IIIG [4-6]	Pz IVH [1-3] StuG IIIG [4-6][3]
8	PSW 222 [1-4] Kfz 4 [5-6]	Pz IIIF	Pz 38(t)E [1-3] Pz 38(t)A [4-6]	Pz 38(t)E [1-3] Pz 38(t)A [4-6]	Pz IIIJ [1-3] Pz IIIH [4-6]	StuG IIIG [1-4] Marder III(t)M [5-6]	Pz VG	JgPz 38(t) [1-3] Marder III(t)M [4-6]
9	Pz 38(t)A	Pz 38(t)A	PSW 222 [1-4] Kfz 4 [5-6]	Pz IIF [1-3] PSW 222 [4-6]	Marder III(t)M [1-3] Marder II [4-6][6]	SPW 250/9 [1-3] PSW 222(L) [4-6]	Marder III(t)H [1-3] Marder II [4-6][6]	Marder III(t)H [1-3] Marder II [4-6][6]
10	PSW 231/8R [1-3] PSW 221 [4-6]	PSW 222 [1-4] Kfz 4 [5-6]	StuG IIIB	StuG IIIB[3]	Pz IIF	PzJg III/IV [1-3] Pz IIIN [4-6]	SPW 251/10 [1-3] PSW 222(L) [4-6]	SPW 251/10 [1-3] PSW 222(L) [4-6]
11	SdKfz 6/2 [1-2] SdKfz 10/4 [3-6]	PSW 231/8R [1-3] PSW 221 [4-6]	Pz 35t [1-3] PSW 221 [4-6]	SPW 250/10 [1-3] PSW 231/8R [4-6]	SPW 251/2 [1-3] SPW 250/10 [4-6]	PSW 232/8R [1-3] SPW 251/10 [4-6]	SPW 251/2 [1-3] PSW 232/8R [4-6]	SPW 251/sMG [1-3] SPW 251/2 [4-6]
12	Kfz 13	SdKfz 10/4 [1-4] PSW 231/6R [5-6]	PzJg I [1-3] SdKfz 6/2 [4-6]	SPW 250/7 [1-3] PzJg I [4-6]	StuPz IV [1-3] PzJg I [4-6]	PzA III/IV [4-6]	SPW 251/16 [1-3] SPW 251/9 [4-6]	JgPz V [1-2] SPW 251/9 [3-6]

[1] Pz IIID if 1-4/40 [2] Pz IIIL on subsequent dr of ≤ 3 if date is 7-12/42 [3] StuG IIIG if date is 7-12/42 [4] Pz VG on a subsequent dr of ≤ 4 if date is 10-12/43
[5] StuG IIIG(L) on subsequent dr of 1 [6] Marder I on subsequent dr of 6 if date is 9/42-12/44 [7] PzJg I if date is 1-4/42 [8] Pz IVF2 on a subsequent dr of ≤ 3 if date is 7-12/42

G7: TRANSPORT

DR	1939-1945
2	SPW 251/1[1]
3	SPW 251/1[1]
4	Captured[2]
5	Buessing-NAG
6-7	Opel Blitz
8	Sdkfz 7
9	Sdkfz 11
≥ 10	Wagon

[1] Opel Blitz if 1939-41
[2] Equipped with captured transport; reroll on the opponent's Transport Table [x2]
[3] Receive one SPW 251/10 for each complete group of six SPW 251/1 received

G7a: ESCORT VEHICLE

DR	1939-40	1941-42	1943-45
2	Pz 35t	Pz 35t	Pz 35t
3	Pz 35t	Pz 35t	Kfz 4
4	Pz IB	Pz 35t	Kfz 4
5	Pz IB	Pz 35t	2cm FlaK LKW
6	Kfz 4	Pz IB	2cm FlaK LKW
7	Kfz 4	Kfz 4	2cm FlaK LKW
8	Kfz 4	Kfz 4	3.7cm FlaK LKW
9	Kfz 4	Kfz 4	3.7cm FlaK LKW
10-11	SdKfz 10/4	SdKfz 10/4	SdKfz 10/4
12	SdKfz 6/2	SdKfz 6/2	SdKfz 6/2

G8: OBA AVAILABILITY

Final dr	Result	Cumulative drm:
≤ 1	Plentiful	–1 Month is June, July or August
2-4	Normal	+1 Date is 8/43+
≥ 5	Scarce	

G6a: SPG (5.71)

DR	5/40-1942	1-6/1943	7/43-1945
2	StuG IIIB	PzA LrS(f)	StuPz IV
3	StuG IIIB	PzA LrS(f)	StuPz IV
4	StuG IIIB	StuH 42	StuH 42
5	StuG IIIB[1]	StuH 42	StuH 42[5]
6	StuG IIIB[2]	StuH 42	PzA II
7	StuG IIIB	StuG IIIG	StuG IIIG[4]
8	StuG IIIB	StuG IIIB	sIG 38(t)M
9	sIG 1B[3]	sIG 38(t)M[3]	StuG IIIB
10	sIG 1B[2]	StuG IIIB	PzA III/IV
11	sIG 1B	sIG 38(t)M[3]	PzA LrS(f)[4]
12	sIG 1B	StuG IIIG	StuH 42

[1] StuG IIIG if 6-12/42 or 44-45 [2] PzA LrS(f) if 9-12/42
[3] StuG IIIB if 1-2/43 [4] StuH 42(L) IF 1945
[5] Substitute late model of this AFV [with "(L)" suffix to name] on subsequent dr of ≤ 2 if 6/44+

G6b: RECON VEHICLE (5.71)

DR	1939-40	1941-6/42	7/42-6/44	7/44-1945
2	PSW 231/8R	SPW 251/10	SPW 251/10[4]	Aufkl. 38(t)
3	Pz IIA	PSW 222	PSW 233	SPW 251/9 [1-4] SPW 250/8 [5-6]
4	Pz IB	PSW 231/8R	SPW 250/10	PSW 233 [1-2] PSW 234/1 [3-6]
5	PSW 231/6R	PSW 231/8R	PSW 221[3]	SPW 250/9
6	PSW 231/8R	PSW 222	SPW 250/9[3]	PSW 232/8R
7	PSW 222	PSW 222	PSW 222(L)	PSW 222(L)
8	PSW 221	SPW 250/10[2]	PSW 222	PSW 222
9	Kfz 13	PSW 221	PSW 232/8R	SPW 250/10
10	PSW 222	PSW 221	PSW 231/8R	PSW 233 [1-2] PSW 231/8R [3-6]
11	SPW 251/10[1]	Pz IIF	PSW 234/2	PSW 234/3 [1-3] PSW 234/2 [4-6]
12	PSW 221	Pz IB	SPW 250/8	Pz IIL

[1] Kfz 13 if year is 1939 [2] SPW 251/10 if date is 1-8/41
[3] PSW 233 if year is 1943 or 1944 [4] PSW 222 if date is 7/42-6/43
[5] Pz IIL if year is 1944

G6c: TD GENERATION TABLE (5.71)

DR	5/40*-8/41	9/41-4/42	5/42-6/43	7/43-7/44	8/44-1945
2	PzJg I	PzJg 35R(f)	Marder I[5]	PzJg Tiger	PzJg Tiger [1-4] StuG IIIG [5-6]
3	PzJg I	PzJg 35R(f)	PzJg35R(f)	StuPz IV	JgPz V
4	PzJg I[2]	StuG IIIB	PzJg I	PzJg III/IV	JgPz IV[6]
5	PzJg I	StuG IIIB	StuH 42[6]	StuH 42	JgPz IV/70
6	PzJg I	StuG IIIB	Marder III(t)H	Marder III(t)M	JgPz 38(t)
7	StuG IIIB[1]	SPW 250/10	StuG IIIG	StuG IIIG	StuG IIIG[6]
8	StuG IIIB	PzJg I	Marder II	Marder III(t)H	Marder III(t)H [1-3] Marder II [4-6]
9	StuG IIIB	PzJg I	StuG IIIB	Marder II	Marder III(t)M [1-4] PSW 234/4 [5-6]
10	StuG IIIB	StuG IIIB	SPW 250/10	StuG IIIB[3]	StuH 42[6]
11	SPW 251/10	SPW 251/10	SPW 251/10	PzJg 35R(f)	PzJg III/IV
12	SPW 251/10	SPW 251/10	SPW 251/10	SPW 250/8	StuPz IV

* None available before 5/40, roll on Table G6 instead.
[1] PzJg I if year is 1940 or month is 5/42 [2] PzJg 35R(f) if date is 8/41
[3] StuG IIIB if date is 5-8/42 [4] StuG IIIB if year is 1942
[5] StuG IIIG if date is 1-2/44; JgPz IV if date is 3-7/44
[6] Substitute late model of this AFV [with "(L)" suffix to name] on subsequent dr of ≤ 2

G9: GERMAN RANDOM EVENT (2.)

Colored dr drm (2.3):
± x as per MSR

* Each RE preceeded by an "*" may occur only once per Mission (2.31).

DR Random Event

***01** Armored Flamethrower detachment arrives! Make a dr {A6e} to determine the number of AFV arriving, then make a dr (if necessary) on the proper table below to determine the unit type (all are of the same type) [EXC: if the date is 4-12/42, conduct German RE 02 instead; each 8-3-8 is Passenger on a 251/1].

6/41-3/42	1-6/43	7/43-12/44	1945
PzKw II(Fl)	SPW 251/16	PzKw III Fl [1-3]	JgPz 38(t)Fl [1-2]
		SPW 251/16 [4-6]	PzKw III(Fl) [3-4]
			SPW 251/16 [5-6]

***02** Pioniere platoon arrives! Three Assault Engineer (H1.22) 8-3-8 squads, equipped with SMC/SW as per standard DYO procedure (H1.8-.83), arrive. On a subsequent dr of ≤ 2 each such squad may enter as Passenger of a SPW 251/1; on a subsequent dr of 3 or 4 each such squad may enter as Passenger on an Opel Blitz; otherwise the units enter as Infantry.

***03** Pioniere platoon flank attack! As per German RE 02 except the units must enter on either the north (or south, as per a Random dr) edge of any mapboard (player's choice), providing that mapboard has ≥ one German unit on it.

***04** Each ENEMY dr on the Fortification Generation Table {A5} has a +2 drm for the duration of the Mission.

05 German Sappers arrive! A number {A6a} of sapper (H1.23) squads are received (see below to determine squad type). Make a DR {G3} for leader possibility. Each sapper squad automatically receives one DC *and* one LMG.

dr ≤ 2: 8-3-8 **dr 3-4:** 4-6-8 **dr ≥ 5:** 5-4-8

***06** Stukas! Stukas arrive during the next ENEMY MPh. Make a dr {A6f} to determine the number available; all are automatically armed with bombs (ignore E7.1-.21). Reroll for another RE if conditions prohibit this RE.

***11** Panzer Aufklärungs section arrives! A mix of SPW 250/7/8/9/10 arrive. Make a dr for each such AFV type listed below:

250/7: one is received on a dr of ≤ 2
250/8: one is received on a dr of ≤ 2
250/9: determine the number received as per a dr {A6a}
250/10: one is received on a dr of ≤ 4*

* If an armor leader is received (5.711), he must crew this vehicle if such a vehicle is received; otherwise it is the player's choice. No more than one armor leader may be Activated for this RE.

12 Panzergrenadiers arrive! As per German RE 34-36 except that each such reinforcement unit may enter as a Passenger on a SPW 251/1. A Cumulative –2 DRM {G2} applies due to this RE. Additionally, on a subsequent dr of ≤ 3 one SPW 251/10 is included. Only one armor leader {G3} (5.711) may be Activated with this RE.

13 Motorized infantry reinforcements! As per German RE 34-36 except that each such reinforcement unit may enter as a Passenger on an Opel Blitz. A Cumulative –1 DRM {G2} applies due to this RE.

14 A peasant boy is discovered cowering in a root cellar. Upon questioning he reveals useful information. The player may immediately remove a number (as per a dr) of S? that are within the LOS of any one unbroken German Infantry unit. No "free" LOS check(s) allowed before removal.

15 ENEMY resistance is fading. The player may immediately remove a number of S? (as per a DR). A S? in a VPO Location may only be removed if no other non-VPO-Location S? are present. If no S? are currently onboard reroll for another RE.

16 Assault Gun section arrives! Determine the number {A6f}, type {G6a} and armor leader {G3}. All are the same type.

***21** Aufklärungs Abteilung arrives! Determine the number {A6c}, type {G6b} and armor leader {G3}. All are the same type.

***22** Aufklärungs Abteilung arrives! Determine the number {A6f}, type {G6b} (make a separate DR for each), and armor leader {G3}. On a subsequent dr of ≤ 2 each such AFV of the RE may enter on the north (or south, as per a Random dr) edge of any mapboard (player's choice), providing that mapboard has ≥ one German unit on it.

23 Panzers! Determine the number {A6c}, type {G6} and armor leader {G3}. All are the same type.

***24** ENEMY ammunition supplies dwindling! The ENEMY suffers from the effects of Ammunition Shortage (A19.131) for the duration of the Mission.

***25** Gun section arrives! Determine the number {A6f} and type {G5} (use the "Outside" column; all are the same type). Each Gun is crewed by one 2-2-8. At the player's option each such reinforcement Gun may be Manhandled or Towed onboard. If Towed, make a DR {G7} to determine the Transport type (reroll, if necessary, until a vehicle is determined that is able to Tow the Gun type).

26 Assault Gun section arrives! As per German RE 16 [EXC: on a subsequent dr of ≤ 4 each unit must enter anywhere along the north or south edge (as per a Random dr) of the current mapboard configuration (all enter on the same edge)].

***31-33** Request for artillery support has been granted! Determine OBA type received by a DR on the Chapter H "German OBA Availability Chart" (H1.53). Next make a dr {G8} to determine the ammunition supply. The player may immediately give one German radio to any German leader of his choice [EXC: if the ENEMY is in Advance Attitude the player may instead choose a Field Phone, recording a Security Area as necessary] *or* an 8-0 leader with radio enters along the FBE mounted on motorcycle or in a Kübelwagen (without AAMG); player's option.

34-36 Infantry reinforcements! Make two dr {A6b} to determine the number of squads received. Determine the squad type (all are the same) by a DR {G2}. Determine all SMC/SW using H1.8-1.83.

***41** ENEMY AFV is Recalled! Determine the AFV affected by a Random dr (for purposes of this RE an AFV platoon counts as a single AFV) and immediately mark such as Recalled (D5.341). If there is currently no Mobile ENEMY AFV onboard reroll for another RE.

DR Random Event

***42** ENEMY AFV is Immobilized! Determine the AFV affected by a Random dr, and immediately mark such as Immobilized (D8.1). Immobilization TC is not required. If there is currently no Mobile ENEMY AFV onboard reroll for another RE.

43 ENEMY resistance slackens! The ENEMY AC# decreases by one [EXC: if AC# is already 2 conduct German RE 15 instead].

44 Make a subsequent dr and perform the indicated RE:

dr ≤ 3: ENEMY RE Numbers decrease by one (2.4) [EXC: if ENEMY RE Numbers are currently 2/3 conduct RE 43 instead]
dr ≥ 4: Rumors of German reinforcements on the way. German RE Numbers increase by one (2.4) [EXC: if German RE Numbers are currently 6/7 reroll for another RE]

45 German leader turns heroic (A15.21)! Determine affected leader by Random dr among all currently non-Captured, non-Disrupted, non-Heroic on-board non-armor German leaders. If no German leader is eligible reroll for a different RE.

46 German sniper finds a target! Make a subsequent dr to determine the attack type; perform the attack as the first action of the upcoming PFPh:

dr of ≤ 3: conduct a "1" sniper attack (A14.3)
dr of ≥ 4: conduct a "2" sniper attack (A14.3)

***51** *Landsers* stage a flank attack! Determine the number of squads by a DR. Determine the squad type (all are the same) by a DR {G2}. Determine all SMC/SW using H1.8-1.83. Then make a Random dr to determine edge of entry (north or south). All must enter anywhere along the same edge.

***52** Panzers stage a flank attack! Determine the number {A6f}, type {G6} and armor leader {G3}. All are the same type. Then make a Random dr to determine edge of entry (north or south). All must enter anywhere along the same edge.

***53** German combined-arms flank attack! Conduct German REs 51 *and* 16 [EXC: use Table A6e to determine the number of AFV received]. All units must enter along the same edge.

***54** Medium "tube" section arrives! Make a dr {A6d} to determine the number of dm 81mm MTRs received, each of which has one 2-2-8 crew. On a subsequent dr of ≤ 2 the mortar section is equipped with transport. If so, make a DR {G7} with a +2 DRM. All transport vehicles are the same type; only enough vehicles are received to carry these RE units/weapons. Transport can be refused if so desired.

***55** Airstrike! Determine type, presence of bombs and number entering as per E7.21. Each aircraft is eligible to enter in the next ENEMY MPh. Reroll for another RE if current conditions prohibit air support.

***56** AT Gun section arrives! Determine the number {A6e} and type {G5a} (all are the same type). Each Gun is crewed by one 2-2-8. At the player's option each such reinforcing Gun may be Manhandled or Towed onboard. Determine towing vehicle type {G7} (reroll, if necessary, until a vehicle is determined that is able to Tow the Gun type; all such vehicles are the same type).

***61-62** Artillery support granted! Conduct German RE 31-33 (even if it has previously occurred).

63 Fanatics! One German leader (determine by Random dr from among eligible SMC) immediately turns Fanatic (A10.8). Additionally, each eligible German Infantry unit in his Location that passes a NTC also turns Fanatic (leadership DRM applies as per A15.41). If no German leader is eligible reroll for a different RE.

64 Panzers! Determine the number {A6f}, type(s) {G6} and armor leader {G3}. Perform a separate DR {G6} for each AFV received.

65 Jagdpanzers! Determine the number {A6c}, type {G6c} and armor leader {G3}. All are the same type.

66 Hero! A Hero is immediately created from the German MMC closest to an ENEMY unbroken/vehicular unit. If no such ENEMY unit onboard reroll for a different RE.

***71** AT Gun section arrives! Conduct German RE 56 [EXC: use Table A6f to determine the number of Guns received].

72 Jagdpanzers! Determine the number {A6d}, type {G6c} and armor leader {G3}. All are the same type.

***73** Gun section arrives! Determine the number {A6d} and type {G5} (use the "Outside" column; all are the same type). Each Gun is crewed by one 2-2-8. At the player's option each such reinforcing Gun may be Manhandled or Towed onboard. Determine towing vehicle type {G7} (reroll, if necessary, until a vehicle is determined that is able to Tow the Gun type; all such vehicles are the same type).

***74** ENEMY attack called off! The Attitude of *all* ENEMY units immediately changes to Hold [EXC: if German RE 75-76 has already occurred conduct German RE 46 instead]. All DR on table A1 now have a +1 DRM; all previous negative DRM applicable on this table are immediately cancelled. Additionally, decrease each ENEMY RE# by one.

***75-76** Evacuate! Battalion HQ has ordered your command to evacuate their positions, pulling back toward GERMAN lines [EXC: if German RE 74 has already occurred reroll for a different RE]. Decrease each German RE# by one. The German side receives Exit VP (A26.3) for each German unit exited off the FBE by Mission end. The ENEMY receives Casualty VP (A26.2) for each Encircled German unit remaining onboard at Mission end; double Casualty VP if German unit is Captured/non-Mobile. Otherwise, the Mission-specific VP schedule still applies. The Mission ends automatically in five Game Turns (counting the current Game Turn as the first of those five turns), or when the last Mobile German unit exits the board configuration (whichever occurs first). Ignore the Mission End method given in the Mission being played. Additionally, decrease each FRIENDLY RE# by one.

Partisan Generation Tables

P1: ACTIVATION CHECK (AC) (5.1)

Partisan-ENEMY S? rolls for Activation if...

A) FRIENDLY Infantry is in LOS within 6 hexes with a Final IFT DRM of ≤ –2
B) FRIENDLY Infantry is in LOS within 4 hexes with a Final IFT DRM of ≤ –1
C) FRIENDLY Infantry is in LOS within 3 hexes with a Final IFT DRM of ≤ 0
D) FRIENDLY Infantry/Unarmored-vehicle is in LOS within 2 hexes with a Final IFT DRM of ≤ 1
E) Any FRIENDLY unit is ADJACENT

P2: SQUAD (5.72)

Final DR	Squad Type
≤ 9	3-3-7
≥ 10	5-2-7*

DRM:
+1 If date is 1944-45
* Treat each 5-2-7's and 2-2-7's morale # as underlined

P4: SW (5.75)

DR	SW
2	HMG
3	LtMtr
4	MMG
5	LMG
6-8	–
9	ATR
10	–
11	LtMtr
12	LMG

If *not* in Russia substitute:
British LMG for LMG; U.S. BZK for ATR if 1944 (otherwise use British ATR); U.S. Lt MTR for Lt MTR; U.S. MMG for MMG; British HMG for HMG



Solitaire ASL

P5: GUN (5.76)

	Russia[1]		France[2]	
DR	Inside	Outside	Inside	Outside
2	57LL AT	57LL AT	57L AT	81* MTR
3	45LL AT	75* INF[G]	75* INF[G]	75* INF[G]
4	75* INF[G]	76* INF	75* INF[G]	37LL AT
5	76* INF	37* INF[J]	37L AT[G]	81* MTR
6	45L AT	82* MTR	25LL AT[B]	81* MTR
7	45L AT	82* MTR	37LL AT	25LL AT[B]
8	37L AT	45L AT	37LL AT	37LL AT
9	37L AT[G]	37L AT	25LL AT[B]	40L AT[B]
10	37* INF[J]	37L AT[G]	40L AT[B]	50L AT[G]
11	50L AT[G]	45LL AT	50L AT[G]	37L AT[G]
12	45LL AT	50L AT[G]	57L AT	57L AT

[1] Use Russian Ordnance unless noted otherwise
[2] Use U.S. Ordnance unless noted otherwise
[J] Reroll if year is 1943+ [G] German (Captured)
[B] British Ordnance

P3: LEADER (5.73)

Final DR	Infantry Leader
2	10-2
3	9-2
4	9-1
5	8-1‡
6	8-0‡
7	7-0
8-10	–
≥ 11	6+1

‡ Replace the noted leader with the proper Commissar type (A25.22) on subsequent dr of ≤ 2 if in pre 11/42 Russia.

Partisan-ENEMY RE Table (2.; 12.213)

Colored dr drm (2.3):
±x as per MSR

* Each RE preceded by an "*" may occur only once per Mission (2.31).

DR Random Event

***01** Wire! A line of wire is spotted by the unbroken FRIENDLY unit that is closest to the EBE. The closest Wire counter to the spotter is a number of hexes away (as per a dr) toward the EBE (or along EBE hexes if the dr is > the range to that edge). The line of wire contains a number of Wire counters (as per a DR+2) and is placed in a (Alternate) Hex Grain paralleling the EBE. The first such Wire counter placed must be in the hex of that (Alternate) Hex Grain closest to the spotting unit and in its LOS (if no hex of that [Alternate] Hex Grain is in its LOS move the (Alternate) Hex Grain closer to the spotter until ≥ one hex of it is in the spotter's LOS. Place additional Wire counters, one at a time, in eligible Locations of that (Alternate) Hex Grain to either side of the original Wire counter placed (beginning with the lowest-lettered hexrow) until all are placed. Each ENEMY unit in a just-placed Wire Location is beneath the wire; each FRIENDLY unit must be on it.

02-03 Bunker! A 1+3+5 Pillbox has been spotted by the unbroken FRIENDLY unit that is closest to the EBE. To determine the bunker's Location make a dr: place it in the nearest eligible Location (D9.52) in the LOS of the spotting unit that is at least that number of hexes (as per the dr) toward the EBE. Roll below to determine the bunker's contents:

- **≤ 2** One Gun {P5; use the "Inside" column} with crew (5.76)
- **3-4** HMG; squad {P2}; leader {P3}
- **≥ 5** MMG; squad {P2}; leader {P3}

04-05 Minefield! The FRIENDLY (non-Melee) Infantry stack(s) in an eligible (non-building) minefield Location (B28.1) [EXC: if on FRIENDLY setup board] and nearest to the EBE, finds it has stumbled into an A-P minefield. Conduct a mine attack vs each such unit as the first event of the upcoming ENEMY PFPh just as if the unit(s) had entered the Location as a stack. Determine the strength of each such A-P minefield by a Random dr (dr of ≤ 2 = 6; dr of 3-4 = 8; dr of ≥ 5 = 12). Mark each such Location by the appropriate Minefield counter.

06 Partisans infiltrate! On the mapboard containing the most FRIENDLY units place one Partisan S? in each (non-rooftop, non-sewer) building Location not currently marked with a Partisan S? and not occupied-by/ADJACENT-to a FRIENDLY unit [EXC: 4.12-.13]. Each such Location reverts to ENEMY Control (if previously FRIENDLY Controlled). Each such S? assumes Hold Attitude. Use Partisan Tables (P1/P2/P3/P4/P5) for generation of these S?.

11 A FRIENDLY Infantry unit in a building Location inadvertently upsets a lit kerosene lamp (if no such unit occupies a building Location reroll for a different RE). Place a Pinned (as per B25.15) Flame counter in the Location.

DR Random Event

12 Boobytrap! A FRIENDLY Infantry unit in a building Location touches off a Boobytrap (if no such unit occupies a building Location reroll for a different RE). Determine one Location from all such thusly occupied. All Infantry units in the Location are attacked by the boobytrap as the first attack of the upcoming PFPh. Make a DR to determine the boobytrap's FP, rounding down to the nearest FP column if necessary. When resolving the attack the TEM of the Location is reversed. A CH is possible; random selection if applicable. After attacking the boobytrap is considered disarmed.

13-14 One randomly-determined FRIENDLY Infantry unit in a woods Location (building Location if no such unit occupies a woods Location; otherwise reroll for a different RE) discovers a dangerously beautiful seductress. Determine one Location from all such occupied. Make a dr; if the Final dr is ≤ 4 the unit is eliminated (there is a +1 drm per the US# of the unit, and a +1 drm per other FRIENDLY unit[s] in the same Location). If not eliminated thusly, the FRIENDLY unit instead immediately becomes TI for a number (as per a dr; +1 drm per HS of the unit, if any) of Game Turns (or portions thereof) or until the FRIENDLY unit is broken or Captured. Unless broken or Captured, the unit is marked CX when the TI counter is removed.

15-16 Scorched earth! FRIENDLY units discover the mutilated bodies of several comrades. No Quarter rules are automatically invoked. In addition to the normal VP Schedule, the FRIENDLY side gains one VP per building Location (on a mapboard that the FRIENDLY side did not begin the Mission set up on) marked with a Blaze counter at Mission end.

***21** One randomly-determined FRIENDLY Infantry unit in a woods Location discovers a dead Partisan leader (building Location if no such unit occupies a woods Location; otherwise reroll for a different RE). Upon inspecting the body, the unit discovers what it suspects to be important documents and tucks them away (as such, they become an "inherent" part of that unit and such possession can never be Transferred nor dropped). Record the identity of the possessor for later reference. If the possessor is a squad that subsequently suffers Casualty Reduction the papers are permanently lost on a dr ≥ 4. If the possessor is later Deployed the possessing HS's ID must be recorded. If the possessor survives the Mission determine the FRIENDLY VP value of the papers by making a dr–1 (they might be worthless after all).

***22** One randomly determined Mobile FRIENDLY AFV is immediately immobilized. If no such AFV is currently on board all non-armored vehicles are eligible. If no mobile FRIENDLY vehicle is onboard reroll for a different RE.

23 ENEMY resistance stiffens! The ENEMY AC# (5.1) increases by one. If the AC# is already 5 reroll for a different RE.

DR Random Event

24 ENEMY AFV! Determine the number {A6b}, AFV type {R6 if in Russia; U6 if elsewhere} (all are the same type) and armor leader {x3} (5.71-.713; 9.3).

25 ENEMY AFV! Determine the number {A6e}, AFV type {R6 if in Russia; U6 if elsewhere} (make a separate DR for each) and armor leader {x3} (5.71-.713; 9.3).

26 ENEMY leader Battle Hardens! The best ENEMY leader eligible to Battle Harden (i.e., non-10-3/10-0) is immediately Battle Hardened (A15.3). Use Random dr to determine if ≥ two of best type. If broken he is also rallied. If no Activated ENEMY leader is onboard reroll for a different RE.

31-33 Partisans infiltrate! As per ENEMY RE 06 except only VPO Location(s) and each Concealment Terrain Location(s) ADJACENT to such a VPO Location is eligible. If no VPO Locations exist in the Mission (or if each such Location already contains a S?) reroll for a different RE.

***34** Partisans receive support! A number of S? (as per a DR+2) enter this turn along the EBE. Each such S? is in Advance Attitude until Activated, at which time each unit Activated therefrom assumes the Prevailing Attitude. Use *Russian* (if in Russia) or *U.S.* (if elsewhere) Tables to generate each such S? successfully Activated. These S? are in addition to any other S? which might otherwise be entering this turn (4.21-.22). Use different colored S? to denote each S? entering due to this RE (3.2).

ADDITIONAL REINFORCEMENTS: During each subsequent Partisan RPh make a Reinforcement dr: if ≤ 2 a number (equal to a DR) of additional S? in Advance Attitude enter during that turn along the EBE; if ≥ 3 no further S? may be entered due to this RE (the Reinforcement dr is no longer made).

***35** ENEMY attack! As per RE 34 except the initial number of S? is equal to a DR+4.

36 Partisan Flank attack! A number of Partisan S? (equal to a DR+3) enter this turn along one of the board edges (north or south; Random dr to determine) adjacent to the FBE (4.21-.22). Each such S? is in Advance Attitude until Activated, at which time each such unit assumes the Prevailing Attitude. Note that, until Activated, these flank-attacking S? move toward the opposite board edge *from the edge entered*. If other Advance Attitude S? are in play, different-colored S? must be used for these flank-attacking S? (3.2). Use Partisan Tables (P1/P2/P3/P4/P5) for generation of these S?.

ADDITIONAL REINFORCEMENTS: During each subsequent Partisan RPh make a Reinforcement dr (until a Reinforcement dr of ≥ 4 is rolled): if ≤ 3 a number (as per a DR) of additional S? in Advance Attitude enter during that turn along the same "flank" board edge.

41 Partisan goes berserk! The closest eligible (A15.1) Activated Partisan Infantry unit in the LOS of the FRIENDLY unit that is nearest to the EBE immediately goes berserk. Determine the FRIENDLY unit by a Random dr if > one qualifies; if no such ENEMY unit has a LOS to the FRIENDLY unit closest to the EBE, check LOS to the FRIENDLY unit second closest to the EBE, etc., until one is determined. Otherwise reroll for a different RE. Furthermore, each eligible Activated Partisan Infantry unit ≤ one hex from this original berserk unit also becomes berserk if it passes a mandatory NTC (failure of which has no effect). A15.41 applies normally (even into an ADJACENT hex).

***42** Storm front moving in. The weather immediately becomes Overcast (E3.5). If already Overcast consider this as a Wind Change DR of 11 (and additional to this Player Turn's previous Wind Change DR).

***43** Visibility drops as mist settles in. Mist (E3.32) is in effect for the duration of the Mission. If already in effect Mist thickens to Fog (E3.31); determine Fog's level and density (E3.31 and E3.311, respectively). If Fog is already in effect its density increases by one; if density is already at +3 reroll for another RE.

44-46 Partisan HMG opens up! The S? nearest to the FRIENDLY non-armored unit that is closest to the EBE is immediately Activated (5.752 is NA). If > one S? qualifies select the one in the Location with the highest TEM; greatest elevation. Make a Random dr if > one FRIENDLY unit qualifies; if no S? has a LOS to the FRIENDLY non-armored unit closest to the EBE, check LOS to the FRIENDLY non-armored unit second closest to the EBE, etc., until a FRIENDLY unit is determined. Activate a Partisan 3-3-7 squad, a HMG and an Infantry leader {P3; a Cumulative –1 DRM applies}. If no S? has LOS to such a FRIENDLY unit reroll for a different RE.

DR Random Event

51 Rumors of ENEMY reinforcements abound! Increase the ENEMY RE#s by one (2.5). If ENEMY RE#s are already 6/7 reroll for a different RE.

52 FRIENDLY regimental HQ reports heavy ENEMY attacks on a neighboring battalion. Reduce the FRIENDLY RE#s by one (2.5). If FRIENDLY RE#s are already 2/3 reroll for a different RE.

53-54 Partisan sniper strikes! Make a subsequent dr: on a dr of ≤ 3 conduct an immediate Sniper attack (A14.3) as if a Sniper attack dr of 1 were just rolled; on a dr of ≥ 4 conduct a Sniper attack (A14.3) as if a Sniper attack dr of 2 were just rolled.

55 Revenge! All FRIENDLY units currently held Captive by any one (randomly determined if > 1) Partisan unit are Massacred.

***56** Partisan dispatch rider! Activate an Partisan 7-0 as a Rider on a SMC bicycle. The unit enters on a randomly-determined EBE road hex that has a contiguous path of connected road hexes exiting off ≥ one other randomly-determined non-FBE (if no such Road Network exists on the mapboard's current configuration reroll for another RE). The Rider proceeds along the determined road path towards the exit hex until forced to Bail Out or eliminated. The bicycler uses all MF available (as per D15.81) as long as he remains mounted. If the Rider is forced to become Infantry he will instead attempt to exit off the nearest non-FBE closest to his current hex (he receives an Automatic Move Command during each ENEMY MPh). If Captured, or if eliminated *and* his last-entered-Location is successfully Searched by a FRIENDLY Infantry unit, valuable papers are discovered on a dr of ≤ 4. Record the identity of the FRIENDLY Possessing unit (the dispatch rider's original Guard or successful Searcher) for later reference. If the possessing unit is a squad that subsequently suffers Casualty Reduction the papers are permanently lost on a dr of ≥ 5. If such a Possessing squad is later Deployed the Possessing HS's ID must be recorded. If the Possessing unit survives the Mission determine the FRIENDLY VP value of the papers by making a dr {A6a}.

***61-64** Partisan reinforcements! A number of *Partisan* S? (as per a DR+5) enter this turn along a *non*-FBE (determine by Random dr). Each such S? generates using the Partisan generation tables (P1/P2/P3/P4/P5) and is in Advance Attitude until Activated, at which time each unit Activated therefrom assumes the Prevailing Attitude. These S? are in addition to any other S? which might otherwise be entering this turn (4.21-.22).

ADDITIONAL REINFORCEMENTS: During each subsequent Partisan RPh make a Reinforcement dr: if ≤ 2 a number (equal to a DR) of additional Partisan S? in Advance Attitude enter during that turn along a *non*-FBE (determine by Random dr; reroll each turn, as necessary); if ≥ 3 no further S? may be entered due to this RE (the Reinforcement dr is no longer made).

***65** ENEMY air support arrives (8.9)! Determine type, presence of bombs and number entering as per E7.1-.21. Each aircraft is eligible to enter in the next FRIENDLY MPh. Reroll for another RE if current conditions prohibit air support.

***66** FRIENDLY AFV Recalled! One FRIENDLY Mobile AFV is immediately placed under Recall (D5.341); Random dr if > one such AFV is eligible.

71-72 FRIENDLY ammo supplies dwindling. The FRIENDLY side suffers from the effects of Ammunition Shortage (A19.131) for the duration of the Mission.

73-75 Partisan reinforcements! As per RE 34 except the initial number of S? is as per a DR+4.

76 ENEMY AFV! Determine the number {A6a}, AFV type {R6 if in Russia; U6 if elsewhere} (all are the same type) and armor leader {x3} (5.71-.713; 9.3).

A11: ENEMY Random Event Table (2.)

Colored dr drm (2.3):
±x as per MSR

* This RE may occur only once per Mission. Reroll for a different RE as necessary (2.31).

DR Random Event

***01** Wire! A line of wire is spotted by the unbroken FRIENDLY unit that is closest to the EBE. The closest Wire counter to the spotter is a number of hexes away (as per a dr) toward the EBE (or along EBE hexes if the dr is > the range to that edge). The line of wire contains a number of Wire counters (as per a DR+2) and is placed in a (Alternate) Hex Grain paralleling the EBE. The first such Wire counter placed must be in the hex of that (Alternate) Hex Grain closest to the spotting unit and in its LOS (if no hex of that [Alternate] Hex Grain is in its LOS move the (Alternate) Hex Grain closer to the spotter until ≥ one hex of it is in the spotter's LOS. Place additional Wire counters, one at a time, in eligible Locations of that (Alternate) Hex Grain to either side of the original Wire counter placed (beginning with the lowest-lettered hexrow) until all are placed. Each ENEMY unit in a just-placed Wire Location is beneath the wire; each FRIENDLY unit must be on it.

02 Armored Cupola! An Armored Cupola (D9.5) has been spotted by the unbroken FRIENDLY unit that is closest to the EBE. Determine the armor type [x6]; use the turret armor of that AFV (if a turreted AFV was not rolled, reroll until one is). Use a turret counter to represent the cupola (it is suggested that the AFV's counter be kept offboard near the cupola as a reminder of its armor). To determine the Cupola's Location make a dr: place the cupola in the nearest eligible Location (D9.52) in the LOS of the spotting unit that is at least that number of hexes (as per the dr) toward the EBE.

03-04 Minefield! The FRIENDLY (non-Melee) Infantry stack(s) in an eligible (non-building) minefield Location (B28.1) [EXC: reroll for another RE if only eligible unit is on FRIENDLY setup board or all FRIENDLY units are in ineligible Locations] that is nearest to the EBE, has stumbled into an A-P minefield. Conduct a mine attack vs each such unit as the first event of the upcoming ENEMY PFPh just as if the unit(s) had entered the Location as a stack. Determine the strength of each such A-P minefield by a Random dr (dr of ≤ 2 = 6; dr of 3-4 = 8; dr of ≥ 5 = 12). Mark each such Location by the appropriate Minefield counter.

05 Local Counterattack! Each Hold-Attitude S? within five hexes of a hex (as determined by drawing a Letter Chit for the hexrow and making a DR+2 for the coordinate) on the mapboard with the most S? immediately assumes Advance Attitude. Replace each such S? with a different-colored S? (3.2).

06 ENEMY infiltration! On the mapboard containing the most FRIENDLY units place one S? in each (non-rooftop, non-sewer) building Location not currently marked with a S? and not occupied-by/ADJACENT-to a FRIENDLY unit [EXC: use 4.12 as necessary]. Each such Location reverts to ENEMY Control (if previously FRIENDLY Controlled). Each such S? assumes Hold Attitude.

11 If ≥ one Good Order FRIENDLY Infantry unit is in a building Location make a subsequent dr and consult the following respective paragraph. Determine the unit randomly if > one such unit is in a building Location; if no such unit is in a building Location reroll for a different RE.

(dr 1) One randomly-determined Good Order FRIENDLY Infantry unit in the Location discovers a dead ENEMY officer. Upon inspecting the body, the unit discovers what it suspects to be important documents and tucks them away (as such, they become an "inherent" part of that unit and such possession can never be Transferred nor dropped). Record the identity of the possessor for later reference. If the possessor is a squad that subsequently suffers Casualty Reduction the papers are permanently lost on a dr ≥ 4. If the possessor is later Deployed the possessing HS's ID must be recorded. If the possessor survives the Mission determine the FRIENDLY VP value of the papers by making a dr–1 (they might be worthless after all).

(dr 2) One randomly-determined FRIENDLY Infantry unit in the Location discovers a sultry peasant girl. The FRIENDLY unit immediately becomes TI for a number (as per a dr; +1 drm per HS of the unit, if any) of Game Turns (or portions thereof) or until the FRIENDLY unit is broken or Captured. Unless broken or Captured, the unit is marked CX when the TI counter is removed.

(dr 3-4) A FRIENDLY Infantry unit in the Location inadvertently upsets a lit kerosene lamp. Place a Pinned (as per B25.15) Flame counter in the Location.

(dr > 5) Boobytrap! (See ENEMY RE #12 except the Location has already been determined.)

12 Boobytrap! A FRIENDLY Infantry unit in a building Location touches off a Boobytrap (if no such unit occupies a building Location reroll for a different RE). Determine one Location from all such thusly occupied. All Infantry units in the Location are attacked by the boobytrap as the first attack of the upcoming PFPh. Make a DR to determine the boobytrap's FP, rounding down to the nearest FP column if necessary. When resolving the attack the TEM of the Location is reversed. A CH is possible; random selection if applicable. After attacking the boobytrap is considered disarmed.

13-14 Minefield! (see ENEMY RE #03-04)

15 ENEMY infiltration! As per ENEMY RE 06 except only VPO Location(s) and each Concealment Terrain Location(s) ADJACENT to such a VPO Location is eligible. If no VPO Locations exist in the Mission (or if each such Location already contains a S?) reroll for a different RE.

***16** ENEMY convoy! Convoy vehicles enter along a randomly-determined EBE road hex that has a contiguous path of connected road hexes exiting off ≥ one other randomly-determined non-FBE (if no such Road Network exists on the mapboard's current configuration reroll for another RE). Each vehicle must use Convoy movement (E11.) and continue movement along the road (using all non-ESB MP possible) towards the determined road exit hex until each vehicle of the Convoy is exited [EXC: if released (E11.251; see also below), at which time all units of the (former) Convoy are eligible for normal Actions]. Each exited Convoy vehicle (regardless of its passengers) grants the ENEMY one VP (two VP if towing a Gun).

RELEASED: When released from the Convoy a vehicle transporting a Passenger-S? will immediately stop and attempt to unload as soon as possible (each unloaded S? is in Advance Attitude until Activated or it occupies any Location with a TEM of ≥ +1, at which time it assumes the Prevailing Attitude). Each released vehicle without Passenger-S? attempts to exit off the (previously determined) exit hex [EXC: if such movement would move it closer to a Known FRIENDLY unit(s) it will instead turn around and attempt to retrace its path toward its entry hex. A vehicle towing a Gun (or one that is non-armored but armed) when released from Convoy formation will continue to tow its Gun and individually attempt to exit (as per an unloaded vehicle, above) [EXC: if the Gun is an AT or INF type the vehicle will unload the Gun crew and that crew will attempt to unhook the Gun as soon as possible before the vehicle attempts to exit]. Each AFV released from Convoy formation is subject to normal Actions immediately.

To determine the Convoy's composition make a subsequent dr and consult the following respective paragraph:

(dr 1) Make a dr to determine the number of Transport vehicles. Then make a DR [x7] to determine the Transport vehicle type (all are the same type). On a subsequent dr of ≤ 4 each such vehicle contains one passenger S?.

(dr 2) As per "dr 1" of this table but perform the entire procedure twice [EXC: the dr to determine if the vehicles contain S? is performed only once for the entire Convoy].

(dr 3) Make a dr to determine the number of Transport vehicles, each of which is towing a Gun and has an Infantry crew as Passenger. Next make a DR [x5] to determine the Gun type (all Guns are the same type). Finally, make a DR [x7] to determine the Transport vehicle type (if the determined vehicle is incapable of towing the pre-determined Gun type reroll [x7] until a vehicle that is capable of towing it is determined).

(dr 4) As per "dr 1" except the Convoy is led by a number [A6g] of vehicles [x6] (each the same).

(dr 5) As per "dr 1" of this table except the Convoy is led by a number [A6e], and trailed by a number [A6g], of vehicles. Make two separate DR [x6] to determine the leading and trailing vehicle types.

(dr 6) As per "dr 2" of this table except that the Convoy is led by a number [A6d] of vehicles [x6b], each of which is determined separately.

***21** ENEMY reconnaissance aircraft flies over during this ENEMY RPh. On a successful STC (E7.3) vs the easiest to spot FRIENDLY unit the ENEMY RE#s increase by one (if RE numbers are already at 6/7 perform ENEMY RE #24 instead). If the STC is unsuccessful there is no further effect. No AA fire is allowed vs the aircraft.

***22** One randomly determined FRIENDLY AFV is immediately immobilized. If no Mobile AFV is currently on board non-armored vehicles are eligible. If no mobile FRIENDLY vehicle is onboard reroll for a different RE.

23 ENEMY resistance stiffens! The ENEMY AC# (5.1) increases by one. If the AC# is already 5 reroll for a different RE.

24 ENEMY AFV! Determine the number [A6a], AFV type [x6] (all are the same type) and armor leader [x3] (5.71-.713; 9.3).

25 ENEMY AFV! Determine the number [A6e], AFV type [x6] (make a separate DR for each) and armor leader [x3] (5.71-.713; 9.3).

26 ENEMY leader Battle Hardens! The best ENEMY leader eligible to Battle Harden (i.e., non-10-3/10-0) is immediately Battle Hardened (A15.3). Use Random dr to determine if ≥ two of best type. If broken he is also rallied. All broken ENEMY units in that Location (if any) are automatically rallied. If no Activated ENEMY leader is onboard reroll for a different RE.

31 ENEMY artillery strike! Determine the number of FFEs by a dr [A6a] (8.7-.75).

32 ENEMY artillery strike! As per ENEMY RE 31 but use Table A6c to determine the number of FFEs.

33 ENEMY Harassing Fire FFE! As per ENEMY RE 31 but use Table A6e to determine the number of FFEs, each of which is resolved as Harassing Fire (C1.72).

***34** ENEMY reinforcements! A number of S? (as per a DR+2) enter this turn along the EBE. Each such S? is in Advance Attitude until Activated, at which time each unit Activated therefrom assumes the Prevailing Attitude. These S? are in addition to any other S? which might otherwise be entering this turn (4.21-.22).

ADDITIONAL REINFORCEMENTS: During each subsequent ENEMY RPh make a Reinforcement dr: if ≤ 3 a number (equal to a DR) of additional S? in Advance Attitude enter during that turn along the EBE; if ≥ 4 no further S? may be entered due to this RE (the Reinforcement dr is no longer made).

***35** ENEMY SPG! Determine the number {A6c}, AFV type {x6a} (all are the same type) and armor leader {x3} (5.71-.713; 9.3).

36 Flank attack! A number of S? (equal to a DR+4) enter this turn along one of the board edges (north or south; Random dr to determine) adjacent to the FBE (4.21-.22). Each such S? is in Advance Attitude until Activated, at which time each such unit assumes the Prevailing Attitude. Note that, until Activated, these flank-attacking S? move toward the opposite board edge *from the edge entered*. If other Advance Attitude S? are in play, different-colored S? must be used for these flank-attacking S? (3.2).

ADDITIONAL REINFORCEMENTS: During each subsequent ENEMY RPh make a Reinforcement dr (until a Reinforcement dr of ≥ 4 is rolled): if ≤ 3 a number (as per a DR) of additional S? in Advance Attitude enter during that turn along the same "flank" board edge.

41 ENEMY goes berserk! The closest eligible (A15.1) Activated ENEMY Infantry unit in the LOS of the FRIENDLY unit that is nearest to the EBE immediately goes berserk. Determine the FRIENDLY unit by a Random dr if > one qualifies; if no such ENEMY unit has a LOS to the FRIENDLY unit closest to the EBE, check LOS to the FRIENDLY unit second closest to the EBE, etc., until one is determined. Otherwise reroll for a different RE. Furthermore, each eligible Activated ENEMY Infantry unit ≤ one hex from this original berserk unit also becomes berserk if it passes a mandatory NTC (failure of which has no effect). A15.41 applies normally (even into an ADJACENT Location).

***42** Storm front moving in. The weather immediately becomes Overcast (E3.5). If already Overcast consider this as a Wind Change DR of 11 (and additional to this Player Turn's previous Wind Change DR). Reroll for another RE if heavy rain is already occurring.

***43** Visibility drops as mist settles in. Mist (E3.32) is in effect for the duration of the Mission. If already in effect Mist thickens to Fog (E3.31); determine Fog's level and density (E3.31 and E3.311, respectively). If Fog is already in effect its density increases by one; if density is already at +3 reroll for another RE.

44-45 ENEMY HMG opens up! The S? nearest to the FRIENDLY non-armored unit that is closest to the EBE is immediately Activated (5.752 is NA). If > one S? qualifies select the one in the Location with the highest TEM; greatest elevation. Make a Random dr if > one FRIENDLY unit qualifies; if no S? has a LOS to the FRIENDLY non-armored unit closest to the EBE, check LOS to the FRIENDLY non-armored unit second closest to the EBE, etc., until a FRIENDLY unit is determined. Activate an Elite ENEMY squad (the type with the greatest normal range if > one Elite squad type is available), a HMG (.50 caliber on subsequent dr of ≤ 3, if available) and an Infantry leader {x3; a Cumulative –1 cumulative DRM applies}. If no S? has LOS to such a FRIENDLY unit (or no S? is currently on board) reroll for a different RE.

46 If a S? is ≤ 4 hexes from a FRIENDLY unit, it automatically Activates as an ENEMY elite squad (use the type with the greatest FP factor) and a FT. If no such S? qualifies, conduct RE 44-45 instead. If > S? qualifies, Activate according to the following Priority List:

Priority List: Closest to FRIENDLY unit; closest to FRIENDLY AFV (AFV with best AF).

51 Rumors of ENEMY reinforcements abound! Increase the ENEMY RE#s by one (2.5). If ENEMY RE#s are already 6/7 reroll for a different RE.

52 FRIENDLY regimental HQ reports heavy ENEMY attacks on a neighboring battalion. Reduce the FRIENDLY RE#s by one (2.5). If FRIENDLY RE#s are already 2/3 reroll for a different RE.

53 ENEMY sniper strikes! Make a subsequent dr: on a dr of ≤ 3 conduct an immediate Sniper attack (A14.3) as if a Sniper attack dr of 1 were just rolled; on a dr of ≥ 4 conduct a Sniper attack (A14.3) as if a Sniper attack dr of 2 were just rolled.

54 If the ENEMY nationality is Russian (or Japanese) a Human Wave (Banzai Charge) enters on the EBE (4.3-.34); otherwise conduct RE 36.

***55** FRIENDLY AFV Recalled! One FRIENDLY Mobile AFV is immediately placed under Recall (D5.341); Random dr if > one such AFV is eligible. If the determined AFV is radioless and currently part of a radioless AFV platoon its entire platoon is placed under Recall. If no mobile FRIENDLY AFV is onboard reroll for a different RE.

***56** ENEMY dispatch rider! Activate an ENEMY 8-0 as a Rider on a SMC cycle. The unit's entry and exit hexes are determined as per ENEMY RE 16. The Rider proceeds along the determined road path towards the exit hex until forced to Bail Out or eliminated. The Rider will use only 14 MP per MPh (or as much as possible up to 14) until a Known FRIENDLY unit is in his LOS, at which time he uses all MP possible. If the Rider is forced to become Infantry he will instead attempt to exit off the nearest non-FBE closest to his current hex (he receives an Automatic Move Command during each ENEMY MPh). If Captured, or if eliminated *and* his last-entered-Location is successfully Searched by a FRIENDLY Infantry unit, valuable papers are discovered on a dr of ≤ 4. Record the identity of the FRIENDLY Possessing unit (the dispatch rider's original Guard or successful Searcher) for later reference. If the possessing unit is a squad that subsequently suffers Casualty Reduction the papers are permanently lost on a dr of ≥ 5. If such a Possessing squad is later Deployed the Possessing HS's ID must be recorded. If the Possessing unit survives the Mission determine the FRIENDLY VP value of the papers by making a dr {A6a}.

61-62 Infiltrators! Use 4.1e to place S? on the mapboard currently with the most FRIENDLY units [EXC: No S? may be placed in a FRIENDLY-occupied Location]. Only one Letter Chit is drawn. Each thusly-placed S? assumes Hold Attitude until Activated.

***63** ENEMY reinforcements! As per RE 34 except the initial number of S? is equal to a DR+3.

***64-65** ENEMY air support arrives (8.9)! Determine type, presence of bombs and number entering as per E7.1-.21. Each aircraft is eligible to enter in the next FRIENDLY MPh. Reroll for another RE if current conditions prohibit air support.

66 ENEMY goes berserk! Conduct ENEMY RE 41.

***71** Creeping Barrage! An ENEMY Creeping Barrage (E12.7) moves towards the FBE from the direction of the EBE (east to west). To determine the Barrage's initial starting hex place an SR on the FRIENDLY unit closest to the EBE (if > one qualifies, select the hex with the most FRIENDLY units; otherwise make a Random dr) and make a scatter DR (as per C1.31). The final hex thusly determined is considered the Barrage's Pre-Registered hex (E12.71); the Aiming Hex (E12.71) must be a hex of the FBE along an (Alternate) Hex Grain from its Pre-Registered hex. Next, determine the FP of the Barrage by a DR on the ENEMY nationality's (Chapter H) DYO OBA chart (reroll on the OBA chart until a non-rocket OBA is determined). During Each ENEMY PFPh (only) the Barrage is adjusted towards the FBE as per E12.74. The ENEMY Creeping Barrage stays in effect until it can no longer be corrected (E12.74).

72 FRIENDLY ammo supplies dwindling. The FRIENDLY side suffers from the effects of Ammunition Shortage (A19.131) for the duration of the Mission.

73 ENEMY AFV! Determine the number {A6b}, AFV type {x6; all are the same type} and armor leader {x3} (5.71-.713; 9.3).

74 ENEMY paradrop! [EXC: Reroll for a different RE if weather conditions prohibit such (E9.1) *or* if the ENEMY nationality is not Russian, German, US or British.] Determine the number of Wings entering {A6b}; each Wing is composed of five Sticks and each Stick consists of one S? (represented by a 5/8" parachute marker until Activated). Determine a separate Drop Point (E9.12) for each Wing by first determining a (non-river) mapboard (of the current configuration) by a Random dr. Next draw a Letter Chit and make a dr+2 to determine the hex coordinate number (disregard the E9.12 restriction on distance between Drop Points). Reroll for each Drop Point within three hexes of any board edge (half)hex. Each Wing now lands on its Drop Point (no dr is made for accuracy; E9.12). Select a Hex Grain for all Wings which will keep most of the Sticks from drifting offboard or into elimination terrain (E9.4).

Immediately before landing each non-German paradropping S? may move one hex (E9.4) using the following Priority List: out of elimination terrain; out of injury terrain (E9.42); toward closest FRIENDLY-Controlled VPO.

In the ENEMY APh each Stick automatically Activates as a "S, L, SW" (no DR on Table A1 is required; each SW generated [normally requiring a separate ½" parachute counter] is assumed to have already been Recovered). Determine the squad type on the respective nationality's Paradrop Squad Table (see below); determine leader {x3} [EXC: make a subsequent dr; if this dr is ≥ 5 no leader is Activated afterall; assume a leader result of "7-0" or "6+1" as "–"]; determine SW {x4} [EXC: the only SW which may be Activated from a Paradropped S? are LMG/dm-MMG/dm-Lt.-Mtr/PSK/BAZ/ATR; any other determined SW is forfeit]. Each SW must be dm if possible. Each unit Activated from a Paradropped S? assumes the Prevailing Attitude.

Each S? landing/drifting off the current mapboard configuration is forfeit. Neither side receives VP for a S? that landed/drifted offboard.

PARADROP SQUAD TABLE

dr	Russian	German	US
1	4-5-8	8-3-8	6-6-7
2-3	6-2-8	5-4-8	7-4-7
≥ 4	4-5-8	4-6-8	7-4-7

75-76 ENEMY reinforcements! As per RE 34 except the initial number of S? is as per a DR+6.

FRIENDLY CMD# (16.2)

FRIENDLY unit must roll ≤ its Command Number.

- A leader/crew has a CMD# one > its current Morale Level.
- A squad/HS has a CMD# equal to its current Morale Level.
- A vehicle has a CMD# one > its current Morale Level (D5.1) [EXC: an SMC Rider/Passenger may use his own CMD# if it is greater].

Cumulative DRM:

–1 if the unit has an Acquired Target
–1 if in Motion
–1 if in Convoy/Column/platoon formation
–1 if U.S. Infantry MMC
–1 if CE AFV

Solitaire ASL CAMPAIGN GAME ROSTER

DATE:	MISSION:	CG Mission #:
FRIENDLY:	ENEMY:	CGVP (17.51):

◀ N **Mapboards in Play:**

FRIENDLY Victory ☐

ENEMY Victory ☐

MISSION SPECIFIC NOTES

Prevailing Attitude:	Boobytrap Level: ❑ A ❑ B ❑ C
Fortification Points/Purchases:	Table A1 DRM: (ENEMY Activation Table) Table A5 drm: (Fortification Table)
Pre-Mission FRIENDLY Reinforcements:	Table A11 cdrm: (FRIENDLY RE) Table x9 cdrm: (ENEMY RE)

MISSION START FRIENDLY COMPANY OB

#	MMC Type + ID(s)	#	SW Type + ID(s)	SMC Name
×		×		
×		×		
×		×		
×		×		
×		×		
×		×		
×		×		

MISSION END RETAINED FRIENDLY COMPANY OB

#	MMC Type + ID(s)	#	SW Type + ID(s)	SMC Name
×		×		
×		×		
×		×		
×		×		
×		×		
×		×		
×		×		

Slip the above portion beneath the (Chapter J/K) Scenario Aid Card so that only the portion below shows.

VICTORY POINT TALLY

VP TYPE	FRIENDLY	ENEMY
VPO CONTROL:		
CASUALTY VP:	+	+
EXIT VP:	+	+
OTHER:	+	+
AT MISSION END:	=	=
Post-Mission: (17.41-.44)	+	+
TOTAL	=	=

COMPANY IMPROVEMENT

MMC: # SMC:

Specific Replacements Received

#	MMC Type	#	SW Type	SMC
×		×		
×		×		
×		×		

FRIENDLY/ENEMY RE# Track (2.11)

2 — 3 — 4 — 5 — 6 — 7

AC Cumulative drm:

−1 S? is in/ADJACENT-to VPO Location
−1 S? is in stone building Location
−1 Per level the S? is above the hex's base level
−1 If ≥ 1 already-Activated ENEMY unit is within two-hexes/the-same-building as the S?
+1 S? is on a Village mapboard (mapboard with 19-49 buildings) [EXC: in Advance Attitude]
+2 S? is on a City mapboard (mapboard with ≥ 50 buildings) [EXC: in Advance Attitude]

Non-repeatable REs (2.31)

AC# (5.1)

MINIMUM			MAXIMUM
2	3	4	5

AC RESULT:

A Final AC dr of ≤ the current AC# results in successful Activation {A1}
A Final AC dr of > the current AC# results in no Activation
An Original AC dr of 1 always results in successful Activation {A1}
An Original AC dr of 6 always results in no Activation

RETAINED

Deployed/Dismantled	Exited off FBE (15.6, 17.1311)	Eliminated & Retained (17.31)
		Unit eliminated due to: "Double Break" (A10.3) Casualty MC (A10.31) Fate (A10.64) Unarmed Casualty Reduction (A20.54) Extreme Winter (E3.742) **Weapon eliminated due to:** Failed repair attempt (A9.72)
(Directly Attached units/Weapons only)	May not re-enter during current Mission	Available for next CG Mission

ELIMINATED from OB (17.32)

Unit/Weapon eliminated due to:
KIA, K/#, CC, Surrender, Failure to Rout, Interdiction, Capture, Falling (B11.41) or Non-survival (D5.6) Failure to Rally (A25.222)

Weapon eliminated due to:
Self Destruction (A9.73), or Random SW/Gun Destruction (A9.74)

No longer Retained. Subject to Replacement

The Avalon Hill Game Company grants permission to photocopy this sheet for personal use.

A10a: VPO Determination Table (14.2)

	Mapboard Number												
dr	1	2	3	4	5	6	7*	8*	9	10	11	12	13
1	G6	J4	E3	I5	H3	J8	F2/D7	B1/C9	H4-I6	G8-H6	G4	E9	E6
2	K5	O5	I7	O6	O5	K2	J1/K9	F3/H9	M4	L3	I6	P3	I8-K6
3	L6	T1	M2	P1	R1	N4	L2/P10	J2/08	O5	Q7-R6	O7	R6	R1
4	U3	V8-W7	R6	S2-T3	S5	P9-R9	P2/V9	N2/R9	S6	W8	Q3-S4	S5	Q7-T7
5	X4	U7	S3	X1	Y8-Z9	Y6	R1/V9	T1/W6	Y6	Z6	Z1-AA2	U5	Y8-AA9
6	BB4	BB5	W6	X8-Y9	EE2	CC5	DD3/Z8	CC2/AA6	EE4	AA5	DD8	AA7-CC7	BB5-CC5
dr	14	15	16	17	18	19	20	21	22	23	24	32	33
1	C1	G9	C7	C3	D5	C3	C7	B2	F4	F3	F6	C1	B5
2	I9	H5	L6	I8	K3	I8	H3	G7	P8	G6-H4	M4	C3-C4	I10
3	L5-L7	N5	O3	P2-P4	R5	K7	O3	J4	R7	N9-P7	M6	F4	P8
4	S9	R8	T9	S4-S6	R9	O9	P8	R4	V2	Y7	R4	N8	R6
5	W6	S5	Y2	W4	X5-Y7	X6	U3	Z2	W8	X3-BB5	T6	S6	R8-S8
6	Y3	Y6	EE2	Z7-DD6	BB7-DD7	CC4	Z3	EE4	DD7	CC8	U4	W5	Y1
dr	34	35	36	37	38	39	40*	41	42	43			
1	G10-H9	E6	F5	E6	D7	B7	C2/C6	G8	F3	B3			
2	P5	K2	K6	K5	E6	H1	H1/N6	J2	H5	M5			
3	Q6	P6	Q6	O7	J8	P5	N8/O8	O8	I3	N9			
4	V5	Z2	V5	R3	N2	P9	R1/Q8	S5	U8	O7			
5	Y1	AA4	Z5	X5	Y5	R3	U1/W4	V6	V2	P1			
6	AA5	CC5	CC4	FF4	BB2	Y1	EE1/CC8	FF3	DD4	EE5			

* Use only the VPO closest to the EBE (14.13).

A10b: VPO Value Table (14.4)

Final dr	Value	Cumulative drm:
≤ 0	6	−1 If Multi-Story stone building
1	5	−1 mapboard's only VPO
2-3	4	+1 mapboard has ≥ 3 VPO
4-5	3	
6	2	
7	1	

A7: Mission Selection Table (17.22)

FRIENDLY on Offense		FRIENDLY on Defense	
Final DR	Mission (#)	Final DR	Mission (#)
≤ 3	Take the Highway[F] (5)	≤ 4	Human Wave* (14)
4	Block Party (7)	5	Tank Attack (11)
5	Bunker Busting (4)	6	Beseiged[F] (12)
6	Cautious Advance[P] (1)	7	Enemy Offensive (9)
7	Pockets[P] (2)	8	Hold The Line (10)
8	Patrol[F] (8)	9-10	The Bridge[F] (13)
9	Recon[P] (3)	≥ 11	Patrol[F] (8)
≥ 10	The Fortress (6)		

* Reroll if ENEMY is not Russian
[F] Possible Partisan ENEMY (12.21)

Possible Partisan ENEMY (12.21)

FRIENDLY side must be German in 1942-44 Russia/France.
Pre-Mission Final dr of ≤ 1 results in Partisan ENEMY.

Cumulative drm: −1 if in Russia in 1943
−1 if previous Mission was vs. Partisan

SQUAD SEASONING TABLE (17.74)

Final dr	Result
≤ 2	2
3-4	1
≥ 5	0

Cumulative drm:
−1 If FRIENDLY side won the last Mission
−1 Per hero eliminated during this step
+1 If CG VP score (17.51) is negative
+2 If FRIENDLY side withdrew (12.4) during the last Mission [EXC: if dictated by RE]

COMPANY LEADER TYPE (17.81)

Final dr	Type	Russian drm:	German drm:	US drm:
≤ 0	9-2	−1 1945	−1 pre 1943	+1 pre 8/43
1	9-1	+1 1941-42	+1 8/44-45	
2-3	8-1*	+2 1939-40		
4-5	8-0*			
6	7-0			
≥ 7	6+1			

* If the FRIENDLY side is pre-11/42 Russian *and* if no Commissar is currently Retained, a just-generated 8-1 leader may be immediately exchanged for a 10-0 Commissar (or a just-generated 8-0 may be exchanged for a 9-0 Commissar) on a Subsequent Final DR of ≤ 3. There is a −1 DRM per Retained Conscript squad.

Cumulative DRM:
−1 Per full squad (> one) the company OB is short of full strength, for the next Mission's date
−1 If CG VP score is negative (17.51)
+1 If CG VP score is positive (17.51)

MMC-TYPE REPLACEMENT TABLE (17.821)

Final dr	Type
≤ 0	Elite[e]
1-4	First Line[1]
5	Second Line[2]
≥ 6	Conscript/Green

FOOTNOTES:
[e] Must be the type that a listed MMC of that Company OB would become if it were to BH
[1] Must be the same type as listed in that Company's OB.
[2] Substitute Conscript or Green MMC (depending on nationality) if Second Line not available.

Cumulative drm:
−1 If ≥ 50% of Personnel (in US#) of current CG Company OB is elite
−2 If Company is "Elite" type (e.g., Paratrooper, SS, Guards, Ranger)
± nationality date drm (see below)

Russian drm:	German drm:	US drm:
−1 6/44-1945	−2 1939-41	−1 1945
+1 1939 or 1942	−1 1942	+1 1942-43
+2 1941	+1 1945	

SASL Campaign Tables

CAMPAIGN GAME COMPANY REFIT STEPS (17.4-.9)

A. At Mission end
1. Resolve Climbing Units
2. Resolve Melees
3. Encircled FRIENDLY units take 1TC
4. Resolve Minefield attacks
5. Determine Victory & Update CG VP total

B. FRIENDLY unit removal/repair
1. Remove Temporarily Attached units/weapons
2. Retain Directly Attached units/weapons
3. Wounded SMC survival check
4. Repair Retained weapons

C. Company Improvement
1. Fanatic Promotion
2. Heroic Leader promotion
3. Random Leader promotion/demotion
4. Squad Seasoning
5. Recombine

D. Company Replacements
1. Leader Replacements
2. Squad/HS Replacements
3. MMC Replacement Class/Type
4. SW Crew Replacement
5. Weapon Replacement

E. Rest & Refit check

FRIENDLY CG COMPANIES (18.1)

GERMAN INFANTRY COMPANY 1939-August 1943 [US#: 55/38]
Leader × 3; 4-6-7 × 12; 2-4-7 × 2; 1-2-7 × 6; HMG; MMG; LMG × 4; 50mm MTR × 3; ATR × 3

GERMAN INFANTRY COMPANY September 1943-1945* [US#: 42/29]
Leader × 3; 4-6-7 × 9; 2-4-7 × 2; 1-2-7 × 2; 2-2-8 × 2; HMG; MMG; LMG × 4; PSK × 2; 81mm MTR × 2
* Panzerfausts become available in October 1943 (C13.3).

RUSSIAN RIFLE COMPANY 1939-November 1941 [US#: 50/35]
Leader × 2; 4-4-7 × 12; 2-3-7 × 2; 1-2-7 × 4; HMG; MMG; LMG × 4; 50mm MTR × 2; ATR × 2

RUSSIAN RIFLE COMPANY December 1941-June 1942 [US#: 35/24]
Leader × 2; 4-4-7 × 9; 2-3-7; 1-2-7 × 2; MMG; LMG × 4; 50mm MTR; ATR

RUSSIAN RIFLE COMPANY July - November, 1942 [US#: 50/35]
Leader × 2; 4-4-7 × 12; 2-3-7; 1-2-7 × 5; MMG; LMG × 4; 50mm MTR × 3; ATR × 2

RUSSIAN RIFLE COMPANY December 1942-1945 [US#: 48/33]
Leader × 2; 4-4-7 × 12; 2-3-7; 1-2-7 × 4; HMG*; LMG × 4; 50mm MTR × 2; ATR × 2
* If ≥ 60% of the US# of all Retained MMC of this Company is elite, the unit is given Guards status and has "HMG × 2". Furthermore, in the Russian's Squad-Type Replacement Table (17.821), results of "4-4-7" are considered "4-5-8", and results of "4-2-6" are considered "4-4-7".

US RIFLE COMPANY 1944-1945 [US#: 48/33]
Leader × 3; 6-6-6 × 9; 3-4-6 × 3; 1-2-6 × 6; 50 Cal. HMG; MMG × 2; M2 60mm MTR × 3; BAZ* × 3
* Bazookas are always the latest type available.

Russian Generation Tables

R1: ACTIVATION CHECK (AC) (5.1)

Russian-ENEMY S? rolls for Activation if…

A) FRIENDLY Infantry is in LOS within 8 hexes with a Final IFT DRM of ≤ –2
B) FRIENDLY Infantry is in LOS within 6 hexes with a Final IFT DRM of ≤ –1
C) FRIENDLY Infantry is in LOS within 4 hexes with a Final IFT DRM of ≤ 0
D) FRIENDLY Infantry/Unarmored-vehicle is in LOS within 3 hexes with a Final IFT DRM of ≤ 1
E) FRIENDLY Infantry/Unarmored-vehicle/CE-AFV is within 2 hexes with a Final IFT DRM of ≤ 2
F) Any FRIENDLY unit is ADJACENT

R2: SQUAD (5.72)

Final DR	Squad Type
≤ 4	4-5-8
5	6-2-8
6-8	4-4-7
9-10	5-2-7
≥ 11	4-2-6

DRM:
–1 If date is 1945
+1 If date is 1942
+2 If date is 1939-41

R3: LEADER (5.73)

Final DR	Infantry Leader	Armor Leader
≤ 1	10-3	10-2
2	10-2	9-2
3	9-2	9-1
4	9-1	8-1
5	8-1‡	–
6-7	8-0‡	–
8	7-0	–
9-10	–	–
≥ 11	6+1	Inexp. Crew

Cumulative DRM:
–1 If any accompanying MMC is elite*
–1 If date is 6/44-1945
+1 If date is 1939-41
+1 If all accompanying MMC are Conscript*

‡ Replace the noted leader with the proper Commissar type (A25.22) on a subsequent dr of ≤ 2 if pre 11/42.
* Not applicable to armor leader generation DR

R4: SW (5.75)

DR	1939-41	1942	1943	1944	1945
2	LMG	LMG	LMG	LMG	LMG
3	LtMtr	LtMtr	ATR	ATR	ATR
4	MMG	MMG	ATR	MMG	LMG
5	LMG	LMG	LMG	ATR	LMG
6	–	–	LtMtr	LMG	MMG
7	–	–	–	–	–
8	–	–	–	–	–
9	LtMtr	ATR	–	LtMtr	LtMtr
10	ATR	–	MMG	–	ATR
11	50c [1] HMG [2-6]	LtMtr	HMG	HMG	HMG
12	MMG	50c [1] HMG [2-6]	50c [1-2] HMG [3-6]	50c [1-2] HMG [3-6]	50c [1-3] HMG [4-6]

R5: GUN (5.76)

DR	1939-1941 Inside	1939-1941 Outside	1942 Inside	1942 Outside	1943 Inside	1943 Outside	1944-45 Inside	1944-45 Outside
2	57LL AT[1]	152* ART	57LL AT	107* MTR	57LL AT	82* MTR	57LL AT	82* MTR
3	76* INF	76L ART	76* INF	152* ART	57LL AT	120* MTR	57LL AT	120* MTR
4	76* INF	122* ART	76* INF	76L ART	45LL AT	37L AT	45LL AT	37L AT
5	76* INF	37* INF	76* INF	122* ART	45LL AT	45L AT	45LL AT	45L AT
6	45L AT	76 ART	45L AT	76 ART	45L AT	82* MTR	45L AT	82* MTR
7	45L AT	76* INF	45L AT	76* INF	45L AT	76L ART	45L AT	76L ART
8	45L AT	45L AT	45LL AT	45L AT	76* INF	76* INF	76* INF	76 ART
9	37L AT	82* MTR	45LL AT	45LL AT	76* INF	45LL AT	76* INF	45LL AT
10	37* INF	37L AT	37L AT	37L AT	37L AT	57LL AT	37L AT	57LL AT
11	37* INF	37L AA	37L AT	82* MTR	37L AT	122 ART	37L AT	122 ART
12	37L AT	76LL ART	37L AT	120* MTR	57LL AT	45L AT	57LL AT	85L AT

[1] 37L AT if 1939; if 1941, substitute 57LL AT on dr of ≤ 4

R5a AT GUN (5.76)

DR	1939-41	1942-43	1944-45
2	76LL ART	45LL AT	57LL AT
3	57LL AT[1]	76L ART	76L ART[4]
4	76LL AT	76LL ART[2]	85L ART
5	45L AT	76L ART	57LL AT
6	45L ART	45LL AT	45LL AT
7	45L AT	45L AT	76L ART
8	76L ART	37L AT	45L AT
9	37L AT	57LL AT[3]	37L AT
10	37L AT	45L AT	37L AT
11	37L AT	57LL AT	45L AT
12	76L ART	37L AT	45LL AT

[1] 45L AT if year is 1939 or 1940
[2] 76L ART if year is 1943
[3] 45L AT if year is 1942
[4] 100L AT if date is 1-5/45

R6: STANDARD AFV (5.71)

DR	1939-40	1941	1942	1943	1944-45
2	T-35	OT-133 [1-4] T-35 [5-6]	KV-8 [1-2] OT-34 [3-6]	KV-8 [1-2] OT-34 [3-6]	SU-152 [1-3][13] OT-34 [4-6]
3	T-28 M34	T-28E M40 [1-3] T-28 M34 [4-6]	T-43	SU-122 [1-3][10] SU-76M [4-6][12]	T-43 [1-2][11] SU-85 [3-6]
4	KV-1 M39/40[5]	KV-2 [1-3] KV-1 M39/40 [4-6]	KV-1E[9]	KV-1 M42	ISU-152 [1-3][12] ISU-122 [4-6][12]
5	T-26S M37/39	T-34 M40 [1-3][7] T-26S M37/39 [4-6]	KV-1 M41	T-34 M43	T-34 85
6	GAZ-4M-AA [1-3] T-37 [4-6]	T-26S M37/39	T-60 M40	T-70	T-34 M41[11]
7	T-26 M33	T-26 M33[1]	T-34 M41	T-34 M41	T-34 M43
8	BT-7 M37	BT-7 M37[5]	T-70[8]	KV-1 M41 [1-3] KV-1S [4-6]	T-70
9	BT-5 M34	BT-5 M34[6]	T-26S M37/39 [1-4] GAZ-4M-AA [5-6]	T-60 M40	SU-76M
10	BT-7A [1-2] SU-12 [3-6]	GAZ-4M-AA [1-4] SU-12 [5-6]	T-60 M42[15]	T-43	IS-2m[13,16]
11	T-28E M40[3]	BT-7A [1-4] IAG-10-AA [5-6]	SU-12	T-60 M42	IS-2 [1-3][14] SU-122 [4-6][11]
12	OT-133[2]	T-37 [1-4] ZIS-42-AA [5-6]	IAG-10-AA	T-50	KV-1S [1-2] M4-76(a) [3-6][16]

[1] T-26 M33 on subsequent dr of ≥ 3 if 1939
[2] IAG-10-AA on subsequent dr of ≥ 4 if 1941
[3] BT-5 M34 if pre 2/40
[4] T-60 M40 on subsequent dr of ≤ 3 if 8/41+
[5] KV-1 M41 on subsequent dr of ≤ 2 if 7/41+
[6] KV-1E on subsequent dr of ≤ 2 if 6/41+
[7] T-34 M41 on subsequent dr of ≤ 2 if 8/41+
[8] T-26S M37/39 if 1-3/42
[9] KV-1 M42 on subsequent dr of ≤ 3 if 6/42+
[10] T-34 M41 if 1/43 or 1-5/44
[11] Reroll DR [R6] if year is 1945
[12] KV-85 if 1-3/44
[13] Reroll DR [R6] if vs Japan
[14] T-34 M43 if 1-8/44
[15] T-26S M37/39 if 1-6/42
[16] T-34 M43 if 1-6/44

R6a: SPG (5.71)

DR	2/43*-8/43	9/43-2/44	3/44-5/45	6-8/45
2	SU-57(a)[1]	SU-57(a)	SU-57(a)	SU-85
3	SU-122	SU-152	SU-152	SU-85
4	SU-122	SU-152	ISU-152	SU-85
5	SU-122	SU-85	ISU-152	ISU-152
6	SU-122	SU-85	SU-85	ISU-152
7	SU-76M	SU-76M	SU-76M	SU-76M
8	SU-76M	SU-122	SU-122	ISU-122
9	SU-76M	SU-122	ISU-122	ISU-122
10	SU-122	SU-76M	ISU-122	SU-76M
11	SU-152[2]	SU-76M	SU-76M	SU-76M
12	SU-152[2]	SU-76i(g)	SU-76i(g)[3]	SU-85

* Reroll on Table R6 if date is pre 2/43
[1] SU-122 if 2-6/43
[2] SU-76M if 2-6/43
[3] SU-100 if 12/44-5/45

R7: TRANSPORT

DR	1939-42	1943-45
2	IAG-6	IAG-6
3	IAG-6	7.5 Ton(a)
4	ZIS-5	ZIS-5
5	ZIS-5	GAZ-MM
6	Wagon	1.5 Ton(a)
7-8	GAZ-MM	2.5 Ton(a)
≥ 9	Wagon	Wagon

R7a: ESCORT VEHICLE

dr	1939-42	1943	1944-45
≤ 3	GAZ-4M-AA	BA-6	M17 MGMC(a)
4-5	SU-12	BA-64B	BA-64B
6	ZIS-42-AA	BA-64B	ZSU-37

R6b: RECON VEHICLE

DR	1939-41	1942	1943	1944-45
2-3	T-37	T-60 M40	BA-6	BA-64B
4	BA-6	T-60 M40	BA-6	BA-64B
5	T-37	T-60 M40	T-70	BA-64B
6	BA-6	T-60 M40	T-60 M42	BA-64B
7	BA-20	T-60 M42[3]	T-60 M40	T-70
8	T-60 M40[2]	BA-6	T-60 M40	T-70
9	T-60 M40[2]	BA-6	BA-64B	T-70
10	T-40[1]	BA-6	T-70	T-70
11	T-60 M40[2]	BA-6	BA-64B	White SC(a)[4]
12	T-37	T-60 M40	White SC(a)[4]	White SC(a)[4]

[1] T-37 if pre 6/41
[2] BA-6 if pre 8/41
[3] T-60 M40 if Jan-Jun 1942
[4] Use British counter, no MGs

R8: OBA AVAILABILITY

Final dr	Result
≤ 1	Plentiful
2-4	Normal
≥ 5	Scarce

drm:
–1 If date is 1944-45
+1 If date is 1941-42

R10: HUMAN WAVE UNITS/SW (4.34)

R10a: Human Wave Units

Final dr	Units
0	4-5-8 × 2, SW‡
1	4-5-8, 5-2-7, L {R3}*
2	4-4-7 × 2, L {R3}*
3	4-4-7, 5-2-7
4	4-4-7 × 2, SW‡
5	4-4-7, 4-2-6, SW‡
6	5-2-7, 4-2-6
7	4-2-6 × 2

R10a Cumulative drm:
+1 if date is pre-1943
–1 if date is 1945
*+1 DRM {R3} per Russian leader/commissar already in that Human Wave
*–1 DRM {R3} if no Russian leader/commissar yet present in that Human Wave
‡ Make a subsequent dr [R10b] to determine SW type.

R10b: Human Wave SW

dr	SW
≤ 3	LMG
4	ATR
≥ 5	–



R9: RUSSIAN RANDOM EVENT TABLE (2.)

Colored dr drm (2.3):
± x as per MSR

* Each RE preceeded by an "*" may occur only once per Mission (2.31).

DR	Random Event

***01** Flamethrower tank detachment arrives! Make a dr {A6e} to determine the number of AFV arriving, then make a dr (if necessary) on the proper table below to determine the unit type (all are of the same type).

1939-41	1942-43	1944-45
OT-133	OT-34 [dr ≤ 4]	OT-34
	KV-8 [dr ≥ 5]	

***02** Engineer platoon arrives! Three Assault Engineer (H1.22) 6-2-8 squads, equipped with SMC/SW as per standard DYO procedure (H1.8-.83), arrive. On a subsequent dr of ≤ 3 each such squad may enter as Passenger of a GAZ-MM truck; otherwise the units enter as Infantry.

***03** Engineer platoon flank attack! As per Russian RE 02 except the units must enter on either the north (or south, as per a Random dr) edge of any mapboard (player's choice), providing that mapboard has ≥ one Russian unit on it.

***04** Each ENEMY dr on the Fortification Generation Table {A5} has a +2 drm for the duration of the Mission.

05 Sappers! A number {A6a} of 4-5-8 sapper (H1.23) squads are received. Make a DR {R3} for a leader possibility. Each sapper squad automatically receives one DC *and* one LMG.

***06** Sturmovik! Russian fighters-bombers arrive during the next ENEMY MPh. Make a dr {A6f} to determine the number available; all are automatically armed with bombs (ignore E7.1-.21). Reroll for another RE if conditions prohibit this RE.

***11** Russian recon section arrives! Determine the number {A6c}, type {R6b} and armor leader {R3}. All are the same type.

12 Russian tank-riders! Determine the number of tanks {A6a}, the tank type {R6; reroll as necessary until a tank is determined}; all tanks are the same type. Receive one 6-2-8 squad per tank. Determine one Infantry SMC {R3} and one SW {R4}. All Infantry/SW must enter as Riders (D6.2) [EXC: if Riders are currently prohibited (D6.2) enter the squads as Infantry instead, using Armored Assault (D9.31)]. Also roll for armor leader {R3} with a Cumulative –1 DRM due to this RE.

13 Motorized infantry reinforcements! As per Russian RE 34-36 except each such reinforcement unit enters as a Passenger on a GAZ-MM truck. A Cumulative –2 DRM {R2} applies due to this RE.

14 A local peasant boy is discovered cowering in a root cellar. Upon questioning he reveals useful information. The player may immediately remove a number (as per a dr) of S? that are within the LOS of any one unbroken Russian Infantry unit. No 'free' LOS check(s) allowed before removal.

15 ENEMY resistance is fading. The player may immediately remove a number of S? (as per a DR). A S? in VPO Location may only be removed if no other non-VPO-Location S? are present. If no S? are currently onboard reroll for another RE.

16 SPG section arrives! Determine the number {A6f}, type {R6a} and armor leader {R3}. All are the same type.

***21** Reconnaissance patrol arrives! Determine the number {A6e}, type {R6b} and armor leader {R3}. All are the same type.

***22** Reconnaissance patrol arrives! Determine the number {A6f}, type {R6b; make a separate DR for each}, and armor leader {R3}. On a subsequent dr of ≤ two these vehicles enter on the north (or south, as per a Random dr) edge of any mapboard (player's choice), providing that mapboard has ≥ one Russian unit on it.

23 Russian AFV arrive! Determine the number {A6c}, type {R6} and armor leader {R3}. All are the same type.

***24** ENEMY ammunition supplies dwindling! The ENEMY suffers from the effects of Ammunition Shortage (A19.131) for the duration of the Mission.

***25** Gun section arrives! Determine the number {A6f} and type {R5} (use the "Outside" column; all are the same type). Each Gun is crewed by one 2-2-8. At the player's option each such reinforcement Gun may be Manhandled or Towed onboard. If Towed, make a DR {R7} to determine the Transport type (reroll, if necessary, until a vehicle is determined that is able to Tow the Gun type).

26 SPG platoon arrives! As per Russian RE 16 [EXC: on a subsequent dr of ≤ 4 these vehicles enter anywhere along the north or south edge (as per a Random dr) of the current mapboard configuration (all enter on the same edge).

***31-33** Request for artillery support has been granted! Determine OBA type received by a DR on the Chapter H "Russian OBA Availability Chart" (H1.53). Next make a dr {R8} to determine the ammunition supply. The player may immediately give one Russian radio to any Russian leader of his choice [EXC: if the ENEMY is in Advance Attitude the player may instead choose a Field Phone, recording a Security Area as necessary] *or* an 8-0 leader with radio enters along the FBE mounted on motorcycle or in a GAZ-67B (player's option).

34-36 Russian Infantry reinforcements! Make a DR+1 to determine the number of squads received. Determine the squad type (all are the same) by a DR {R2}. Determine all SMC/SW using H1.8-1.83.

***41** ENEMY AFV is Recalled! Determine the AFV affected by a Random dr (for purposes of this RE an AFV platoon counts as a single AFV) and immediately mark such as Recalled (D5.341). If there is currently no Mobile ENEMY AFV onboard reroll for another RE.

***42** ENEMY AFV is Immobilized! Determine the AFV affected by a Random dr, and immediately mark such as Immobile (D8.1). Immobilization TC is not required. If there is currently no Mobile ENEMY AFV onboard reroll for another RE.

43 ENEMY resistance slackens! The ENEMY AC# decreases by one [EXC: if AC# is already 2 conduct Russian RE 15 instead].

DR	Random Event

44 Make a subsequent dr and perform the indicated RE:
dr ≤ 3: ENEMY RE Numbers decrease by one (2.4) [EXC: if ENEMY RE Numbers are currently 2/3 conduct RE 43 instead].
dr ≥ 4: Rumors of Russian reinforcements on the way. Russian RE Numbers increase by one (2.4) [EXC: if Russian RE Numbers are currently 6/7 reroll for another RE].

45 Russian leader turns heroic (A15.21)! Determine affected leader by Random dr among all currently non-Captured, non-Disrupted, non-Heroic on-board non-armor Russian leaders. If no Russian leader is eligible reroll for a different RE.

46 Russian sniper finds a target! Make a subsequent dr to determine the attack type; perform the attack as the first action of the upcoming PFPh:
dr of ≤ 3: conduct a "1" sniper attack (A14.3)
dr of ≥ 4: conduct a "2" sniper attack (A14.3)

***51** Russian Infantry stage a flank attack! Determine the number of Russian squads by a DR+2. Determine the squad type (all are the same) by a DR {R2}. Determine all SMC/SW using H1.8-1.83. Then make a Random dr to determine edge of entry (north or south). All must enter anywhere along the same edge.

***52** Tanks stage a flank attack! Determine the number {A6c}, type {R6} and armor leader {R3}. All are the same type. Then make a Random dr to determine edge of entry (north or south). All must enter anywhere along the same edge.

***53** Combined-arms flank attack! Conduct Russian REs 51 *and* 52 [EXC: use Table A6f to determine the number of AFV received]. All units must enter along the same edge; squads enter as Riders if possible (depending on vehicle type and date).

***54** Medium mortar section arrives! Make a dr {A6d} to determine the number of dm 82mm MTRs received, each of which has one 2-2-8 crew. On a subsequent dr of ≤ 2 the mortar section is equipped with transport. If so, make a DR {R7} with a +2 DRM. All transport vehicles are the same type; only enough vehicles are received to carry these RE units/weapons. Transport can be refused if so desired.

***55** FRIENDLY aircraft spotted! Determine type, armament and number entering as per E7.21. Each aircraft is eligible to enter in the next ENEMY MPh. Reroll for another RE if current conditions prohibit air support.

***56** AT section arrives! Determine the number {A6e} and type {R5a} (all are the same type). Each Gun is crewed by one 2-2-8. At the player's option each such reinforcing Gun may be Manhandled or Towed onboard. Determine towing vehicle type {R7} (reroll, if necessary, until a vehicle is determined that is able to Tow the Gun type; all such vehicles are the same type)

***61** Artillery support granted! Conduct Russian RE 31-33 (even if it has previously occurred).

62 Partisan Reinforcements! A number (as per a DR) of Russian partisan 3-3-7 squads enter on the north or south edge (as per a Random dr); all enter on the same edge. Determine one partisan leader using 17.81's "Company Leader Table" (Russian drm apply normally). [Special: if pre 11/42 and if ≥ ten squads are received the leader may be a Commissar; make a subsequent dr: on a dr of one substitute a 10-0; on a dr of 2-3 substitute a 9-0; otherwise a normal partisan leader is received.] Finally, determine if any SW are received: on a Final dr of ≤ 2 one LMG or ATR is received; a –1 drm applies per 5 partisan squads received. Make a separate dr for possible SW.

63 Fanatics! One Russian leader (determine by Random dr from among on-board eligible SMC) immediately turns Fanatic (A10.8). Additionally, each eligible Russian Infantry unit in his Location that passes a NTC also turns Fanatic (leadership DRM applies as per A15.41). If no Russian leader is eligible reroll for a different RE.

64 The clanking of tanks is heard! Determine the number {A6f}, type(s) {R6} and armor leader {R3}. Make a separate DR {R6} for each AFV received

65 Russian SPG platoon arrives! Determine the number {A6b}, type {R6a} and armor leader {R3}. All are the same type.

66 Hero! A Hero is immediately created from the Russian MMC closest to an ENEMY unbroken/vehicular unit. If no such ENEMY unit onboard reroll for a different RE.

***71** AT section arrives! Conduct Russian RE 56 [EXC: use Table A6f to determine the number of Guns received].

72 Russian tanks! Determine the number {A6a}, type(s) {R6} and armor leader {R3}. If the year is 1939-41 make a separate DR {R6} for each AFV; if 1942-45 all are the same type.

***73** Gun section arrives! Determine the number {A6c} and type {R5} (use the "Outside" column; all are the same type). Each Gun is crewed by one 2-2-8. At the player's option each such reinforcing Gun may be Manhandled or Towed onboard. Determine towing vehicle type {R7} (reroll, if necessary, until a vehicle is determined that is able to Tow the Gun type; all such vehicles are the same type).

***74** ENEMY attack called off! The Attitude of *all* ENEMY units immediately changes to Hold [EXC: if Russian RE 75-76 has already occurred conduct Russian RE 46 instead]. All DR on table A1 now have a +1 DRM; all previous negative DRM applicable on this table are immediately cancelled. Additionally, decrease each ENEMY RE# by one.

***75-76** Evacuate! Battalion HQ has ordered your command to evacuate their positions, pulling back toward FRIENDLY lines [EXC: if Russian RE 74 has already occurred reroll for a different RE]. Decrease each Russian RE# by one. The Russian side receives Exit VP (A26.3) for each Russian unit exited off the FBE by Mission end. The ENEMY receives Casualty VP (A26.2) for each Encircled Russian unit remaining onboard at Mission end; double Casualty VP if Russian unit is Captured/non-Mobile. Otherwise, the Mission-specific VP schedule still applies. The Mission ends automatically in five Game Turns (counting the current Game Turn as the first of those five turns), or when the last Mobile Russian unit exits the board configuration (whichever occurs first). Ignore the Mission End method given in the Mission being played.

☆ U.S. Generation Tables [EXC: PTO]

U1: ENEMY ACTIVATION CHECK (AC) (5.1)

U.S.-ENEMY S? rolls for Activation if…

A) FRIENDLY Infantry is in LOS within 12 hexes with a Final IFT DRM of ≤ –2
B) FRIENDLY Infantry is in LOS within 8 hexes with a Final IFT DRM of ≤ –1
C) FRIENDLY Infantry is in LOS within 6 hexes with a Final IFT DRM of ≤ 0
D) FRIENDLY Infantry/Unarmored-vehicle is in LOS within 4 hexes with a Final IFT DRM of ≤ 1
E) FRIENDLY Infantry/Unarmored-vehicle/CE-AFV is in LOS within 2 hexes with a Final IFT DRM of ≤ 2
F) Any FRIENDLY unit is ADJACENT

U2: SQUAD (5.72)

Final DR	Squad Type
≤ 2	7-4-7[ss]
3-4	6-6-7
5-8	6-6-6
9-10	5-4-6
≥ 11	5-3-6

DRM:
+1 If date is 1942-1943
–1 If date is 1945

[ss] See 12.22

U3: LEADER (5.73)

Final DR	Infantry Leader	Armor Leader
≤ 1	10-3	10-2
2	10-2	9-2
3	9-2	9-1
4	9-1	8-1
5	8-1	—
6	8-1	—
7-8	8-0	—
9	7-0	—
10-11	—	—
≥ 12	6+1	Inexp. Crew

Cumulative DRM:
–1 If date is 1945
–1 If any accompanying MMC is elite*
+1 If all accompanying MMC are Conscript*
+1 If date is 1942-1943
* NA to armor leader generation DR

U4: SW (5.75)

DR	1942	1943	1944-45
≤ 3	.50cal	.50cal	.50cal
4	HMG	HMG	HMG
5-6	MMG	MMG	MMG
7	BAZ*	M2 Mtr	BAZ*
8	M2 Mtr	BAZ*	M2 Mtr
9	—	BAZ*	BAZ*
10	M2 Mtr	—	M2 Mtr
11	—	M2 Mtr	—
12	HMG	HMG	HMG

*BAZ is always latest type available

U5: STANDARD GUN (5.76)

	11/42-6/43		7/43-5/44		6/44-1945	
DR	Inside	Outside	Inside	Outside	Inside	Outside
2	M3A1 37mm AT	M2 90mm AA	M1A1 Pack How	M2 90mm AA	M1A1 Pack How	M2 90mm AA
3	M3A1 37mm AT	M1A2 37mm AA	M2A1 105mm H.	M1 40mm AA	M2A1 105mm H.	M1 155mm How [1-4] M1A1 155mm G [5-6]
4	M3A1 37mm AT	M1A2 37mm AA	M1 57mm AT	M51 .50cal MGC[1]	M1 57mm AT	M2 4.2in. Mtr
5	M3A1 37mm AT	M2A1 105mm How	M1 57mm AT	M1A2 37mm AA	M1 57mm AT	M5 3in. AT[2]
6	M3A1 37mm AT	M2A1 105mm How	M1 57mm AT	M1 81mm Mtr	M1 57mm AT	M1 81mm Mtr
7	M3A1 37mm AT	M1 81mm Mtr	M1 57mm AT	M1 57mm AT [1-4] M3A1 37mm AT [5-6]	M1 57mm AT	M1 57mm AT
8	M3A1 37mm AT	M1 81mm Mtr	M1 57mm AT	M2A1 105mm H [1-4] M3 105mm How [5-6]	M5 3in. AT	M3 105mm How [1-3] M2A1 105mm H [4-5]
9	M3A1 37mm AT	M3A1 37mm AT	M1 57mm AT	M1A1 Pack How	M5 3in. AT	M1 40mm AA
10	M3A1 37mm AT	M3A1 37mm AT	M3A1 37mm AT	M1 155mm How	M5 3in. AT	M1A1 Pack How [1-4] M3A1 37mm AT [5-6]
11	M3A1 37mm AT	M1918 155mm How	M3A1 37mm AT	M2 4.2in. Mtr	M3A1 37mm AT	M51 .50cal MGC [1-3] M1A2 37mm AA [4-6]
12	M3A1 37mm AT	M1918 155mm How	M3A1 37mm AT	M1A1 155mm Gun	M3A1 37mm AT	M3 3in. AA

[1] M1 81mm MTR if date is 7/43 [2] 57mm AT if date is 6-10/44 in Italy

U5a: AT GUN (5.76)

DR	11/42-6/43	7/43-5/44	6/44-1945
2	M3A1 37mm AT	M1 57mm AT	M2 90mm AA
3	M3A1 37mm AT	M1 57mm AT	M2 90mm AA
4	M3A1 37mm AT	M1 57mm AT	M3 3in. AT
5	M3A1 37mm AT	M1 57mm AT	M3 3in. AT
6	M3A1 37mm AT	M1 57mm AT	M3 3in. AT
7	M3A1 37mm AT	M3A1 37mm AT[1]	M1 57mm AT
8	M3A1 37mm AT	M3A1 37mm AT	M1 57mm AT
9	M3A1 37mm AT	M3A1 37mm AT	M1 57mm AT
10	M3A1 37mm AT	M3A1 37mm AT	M1 57mm AT
≥ 11	M3A1 37mm AT	M3A1 37mm AT	M3A1 37mm AT

[1] M1 57mm AT if 11-12/43

U6: STANDARD AFV (5.71)

DR	11/42-5/43	6/43-5/44	6/44-12/44	1945
2	M10 GMC[1]	M4A1 MT	M4A3E2(L) MT [1-2][5] M4A3E2 MT [3-6][5]	M4A3E2(L) MT [1-2][5] M4A3E2 MT [3-6][5]
3	M15A1 MGMC	M4A3(75)W MT[2]	M16 MGMC [1-3] M15A1 MGMC [4-6]	M8 HMC [1-3] M7 HMC [4-6]
4	M3 LT [1-3] M5A1 LT [4-6]	M4A3 MT	M4A3(105) MT [1-3] M4A3 MT [4-6]	M10 GMC [1-4] M24 LT [5-6]
5	T30 HMC	M5A1 LT	M4A1(76)W MT [1-2] M5A1 LT [3-6]	M36 GMC [1-2][3] M5A1 LT [3-6]
6	M3A1 LT	M16 MGMC [1-2][4] M15A1 MGMC [3-6]	M4 MT	M4A3(76)W MT [1-4] M4 MT [5-6]
7	M3 MT	M4 MT[3]	M4A1 MT	M4A1 MT
8	M4A1 MT[2]	M4A1 MT	M4A3(76)W MT [1-3] M4A3(75)W MT [4-6]	M4A3(75)W MT [1-3] M4A1(76)W MT [4-6]
9	T19 HMC [1-3] M3 GMC [4-6]	M8 HMC [1-3] M7 HMC [4-6]	M36 GMC [1-2] M10 GMC [3-6]	M18 GMC [1-3] M4A3(105) MT [4-6]
10	M4 MC ht	M4A1 MT	M8 HMC [1-3] M7 HMC [4-6]	M4A3 MT [1-3] M4(105) [4-6]
11	M7 HMC	M10 GMC	M4(105) MT [1-3] M4A1 MC ht [4-6]	M16 MGMC [1-3] M15A1 MGMC [4-6]
12	M3 MT	M4 MC ht	M18 GMC [1-4][7] M24 LT [5-6][5]	M26 HT [1-2] M36B1 GMC [3-6][5]

[1] Reroll if date is pre 3/43 [2] M3 MT if date is 11/43 [3] T30 HMC ht if year is 1943
[4] M14A1 MGMC if year is 1943 [5] M4A1 if date is 6/43 [6] Reroll if in Italy or date is pre 10/44
[7] M4A3(75)W if date is 6-7/44 [8] Reroll unless date is 12/44

U7: TRANSPORT

DR	11/42-6/43	7/43-1945
≤ 3	71/2-Ton tr	71/2-Ton tr
4-5	3/4-Ton tr	3/4-Ton tr
6-8	21/2-Ton tr	21/2-Ton tr
9	11/2-Ton tr	21/2-Ton tr
≥ 10	11/2-Ton tr	11/2-Ton tr

U7a: ESCORT VEHICLE

DR	11/42-12/43	1944-45
2	M3A1 SC	M5A1 LT
3	M3 LT[1]	M3A1 ht
4	M3(HMG) ht	M3(HMG) ht
5	M15A1 MGMC	M8 AC
6-7	M15A1 MGMC	M15A1 MGMC
8	M3(MMG) ht	M16 MGMC
9	M3A1 SC	M16 MGMC
10	M3 ht	M20 AC
≥ 11	M3A1 LT[1]	M3(MMG) ht

[1] M5A1 LT if date is 6-12/43

U8: OBA AVAILABILITY

Final dr	Result
≤ 5	Plentiful
6	Normal

U6a: SPG (5.71)

DR	11/42-8/43	9/43-5/44	6/44-1945
2	M7 HMC	T19 HMC[1]	M12 GMC
3	M7 HMC	T19 HMC[1]	M8 HMC
4	M7 HMC	M8 HMC	M4A3(105) MT[3]
5	T30 HMC	M8 HMC	M4(105) MT[4]
6	T30 HMC	M8 HMC	M4(105) MT
7	T30 HMC	M7 HMC	M4A3(105) MT[3]
8	T19 HMC	M7 HMC	M8 HMC
9	T19 HMC	M7 HMC	M7 HMC
10	T19 HMC	T30 HMC[2]	M7 HMC
11	M4 MC ht	T30 HMC[2]	M7 HMC
12	M4 MC ht	T30 HMC[2]	M8 HMC

[1] M7 HMC if year is 1944 [2] M8 HMC if year is 1944
[3] M4(105) if date is 6/44 [4] M4A3(105) is date is 7-12/44

U6b: RECON VEHICLE (5.71)

DR	11/42-8/43	9/43-12/43	1944	1945
2	M3A1 SC	M3A1 SC	M3A1 SC	M24 LT
3	M3A1 SC	M3A1 SC	M3A1 SC	T8 SC
4	M2 ht	M3A1 SC	M2 ht	T8 SC
5	M3A1 SC	M2 ht	M8 AC	M8 AC
6	M3A1 SC	M3A1 SC	M8 AC	M8 AC
7	M3A1 SC	M8 AC	M8 AC	M8 AC
8	M2 ht	M8 AC	M20 AC	M20 AC
9	M5A1 LT	M5A1 LT	M20 AC	M20 AC
10	Jeep (-/-/4)	Jeep (-/-/4)	M5A1 LT	M20 AC
11	Jeep (-/-/4)	Jeep (-/-/4)	Jeep (-/-/4)	Jeep (-/-/4)
12	Jeep (-/-/6)	Jeep (-/-/6)	Jeep (-/-/6)	Jeep (-/-/6)

U6c: TD Generation Table (5.71)

DR	11/42-6/44	7/44-12/44	1945
2	M10 GMC[1]	M18 GMC	M36B1 GMC
3	M10 GMC[1]	M18 GMC	M36B1 GMC
4	M10 GMC[1]	M18 GMC	M36 GMC
5	M3 GMC[2]	M10 GMC	M36 GMC
6	M3 GMC[2]	M10 GMC	M36 GMC
7	M3 GMC[2]	M10 GMC	M10 GMC
8	M3 GMC[2]	M36 GMC	M18 GMC
9	M3 GMC[2]	M36 GMC	M18 GMC
10	M15A1 MGMC	M36 GMC	M10 GMC
11	M15A1 MGMC	M36 GMC[3]	M36B1 GMC
12	M15A1 MGMC	M18 GMC[3]	M18 GMC

[1] M3 GMC if date is pre 3/43 [2] M10 GMC if date is after 8/43
[3] M10 GMC if date is pre 10/44

U9: U.S. RANDOM EVENT (2.)

Colored dr drm (2.3):
± x as per MSR

* Each RE preceeded by an "*" may occur only once per Mission (2.31).

DR Random Event

***01** Section of flame-thrower Tanks arrives! Make a dr [A6d] to determine number of AFV arriving, then a dr on the proper table below to determine AFV type (all are the same type). Each AFV received is automatically equipped with a bow-mounted SA FT instead of a BMG as per U.S. Vehicle Note F.

dr	1942	1-5/1943	6/43-12/43	1944-1945
1	M5A1 LT	M4A1 LT	M4 MT*	M4 MT
2	M5A1 LT	M4A1 MT	M4A1 MT	M4A1 MT
3	M5A1 LT	M5A1 LT	M4A1 MT	M4A1 MT
4	M3A1 LT	M5A1 LT	M4A3 MT*	M4A3 MT
5	M3A1 LT	M3A1 LT	M5A1 LT	M4A3(75)W MT
6	M3A1 LT	M3A1 LT	M5A1 LT	M5A1 LT

* Use M4A1 if date is 6/43

***01-02** Combat Engineer platoon arrives! Three Assault Engineer (H1.22) 7-4-7 squads, equipped with SMC/SW as per standard DYO procedure (H1.8-.83), arrive. On a subsequent dr of ≤ 2 each such squad may enter as Passenger of a M3 ht; on a subsequent dr of 3 or 4 each such squad may enter as Passenger on a 2½-Ton truck; otherwise the units enter as Infantry.

***03** Combat Engineer platoon flank attack! As per U.S. RE 01-02 except the units must enter on either the north (or south, as per a Random dr) edge of any mapboard (player's choice), providing that mapboard has ≥ one U.S. unit on it.

***04** Each ENEMY dr on the Fortification Generation Table [A5] has a +2 drm for the duration of the Mission.

05 U.S. Sappers arrive! A number [A6a] of 6-6-7 sapper (H1.23) squads are received. Make a DR [U3] for leader possibility. Each Sapper squad automatically receives one DC. Additionally, one dm MMG and one BAZ (latest type) is received.

***06** Ground support! U.S. Fighter Bombers arrive during the next ENEMY MPh. Make a dr [A6f] to determine the number available; all are automatically armed with bombs (ignore E7.1-.21). Reroll for another RE if conditions prohibit this RE.

***11** Recon section arrives! A mix of halftracks arrive. Make a dr for each such AFV type listed below:
M2: determine the number received as per a dr [A6a]
M3(MMG): one is received on a dr of ≤ 2
M3(HMG): one is received on a dr of ≤ 2
M4 MC: one is received on a dr of ≤ 2

12 Armored infantry arrive! As per U.S. RE 35-36 except that each such reinforcement unit may enter as a Passenger on a M3 ht. A Cumulative –2 DRM [U2] applies due to this RE. Additionally, on a subsequent dr of ≤ 2 one M3(MMG) and/or M3(HMG) is included (roll once for each). Only one armor leader (5.711) may be Activated with this RE.

13 Motorized infantry reinforcements! As per U.S. RE 35-36 except that each such reinforcement unit may enter as a Passenger on a 2½-Ton truck. A Cumulative –1 DRM [U2] applies due to this RE.

14 A resistance leader with useful information is encountered. The player may immediately remove a number (as per a dr) of S? that are within the LOS of any one unbroken U.S. Infantry unit. No "free" LOS check(s) allowed before removal.

15 ENEMY resistance is fading. The player may immediately remove a number of S? (as per a DR). A S? in VPO Location may only be removed if no other non-VPO-Location S? are present. If no S? are currently onboard reroll for another RE.

16 SPG section arrives! Determine the number [A6f], type [U6a] and armor leader [U3]. All are the same type.

***21** Recce patrol arrives! Determine the number [A6c], type [U6b] and armor leader [U3]. All are the same type.

***22** Recce units arrive! Determine the number [A6f], type [U6b] (make a separate DR for each), and armor leader [U3]. On a subsequent dr of ≤ 2 each such vehicle of the RE may enter on the north (or south, as per a Random dr) edge of any mapboard (player's choice), providing that mapboard has ≥ one U.S. unit on it.

23 Tanks! Determine the number [A6c], type [U6] and armor leader [U3]. All are the same type.

***24** ENEMY ammunition supplies dwindling! The ENEMY suffers from the effects of Ammunition Shortage (A19.131) for the duration of the Mission.

***25** Gun section arrives! Determine the number [A6f] and type [U5] (use the "Outside" column; all are the same type). Each Gun is crewed by one 2-2-7. At the player's option each such reinforcement Gun may be Manhandled or Towed onboard. If Towed, make a DR [U7] to determine the Transport type (reroll, if necessary, until a vehicle is determined that is able to Tow the Gun type).

26 SPG section arrives! As per U.S. RE 16 [EXC: on a subsequent dr of ≤ 4 each unit must enter anywhere along the north or south edge (as per a Random dr) of the current mapboard configuration (all enter on the same edge)].

***31-34** Request for artillery support has been granted! Determine OBA type received by a DR on the Chapter H "U.S. OBA Availability Chart" (H1.53). Next make a dr [U8] to determine the ammunition supply. The player may immediately give one U.S. radio to any U.S. leader of his choice [EXC: if the ENEMY is in Advance Attitude the player may instead choose a Field Phone, recording a Security Area as necessary] *or* an 8-0 leader with radio enters along the FBE mounted on motorcycle or in a Jeep (without AAMG); player's option.

35-36 Infantry reinforcements! Make two dr [A6b] to determine the number of squads received. Determine the squad type (all are the same) by a DR [U2]. Determine all SMC/SW using H1.8-1.83.

DR Random Event

***41** ENEMY AFV is Recalled! Determine the AFV affected by a Random dr (for purposes of this RE an AFV platoon counts as a single AFV) and immediately mark such as Recalled (D5.341). If there is currently no Mobile ENEMY AFV onboard reroll for another RE.

***42** ENEMY AFV is Immobilized! Determine the AFV affected by a Random dr, and immediately mark such as Immobilized (D8.1). Immobilization TC is not required. If there is currently no Mobile ENEMY AFV onboard reroll for another RE.

43 ENEMY resistance slackens! The ENEMY AC# decreases by one [EXC: if AC# is already 2 conduct U.S. RE 15 instead].

44 Make a subsequent dr and perform the indicated RE:
dr ≤ 3: ENEMY RE Numbers decrease by one (2.4) [EXC: if ENEMY RE Numbers are currently 2/3 conduct RE 43 instead]
dr ≤ 4: Rumors of U.S. reinforcements on the way. U.S. RE Numbers increase by one (2.4) [EXC: if U.S. RE Numbers are currently 6/7 reroll for another RE]

45 U.S. leader leader turns heroic (A15.21)! Determine affected leader by Random dr among all currently non-Captured, non-Disrupted, non-Heroic on-board non-armor U.S. leaders. If no U.S. leader is eligible reroll for a different RE.

46 U.S. sniper finds a target! Make a subsequent dr to determine the attack type; perform the attack as the first action of the upcoming PFPh:
dr of ≤ 3: conduct a "1" sniper attack (A14.3)
dr of ≥ 4: conduct a "2" sniper attack (A14.3)

***51** Infantry stage a flank attack! Determine the number of squads by a DR. Determine the squad type (all are the same) by a DR [U2]. Determine all SMC/SW using H1.8-1.83. Then make a Random dr to determine edge of entry (north or south). All must enter anywhere along the same edge.

***52** Tanks stage a flank attack! Determine the number [A6b], type [U6] and armor leader [U3]. All are the same type. Then make a Random dr to determine edge of entry (north or south). All must enter anywhere along the same edge.

***53** U.S. combined-arms flank attack! Conduct U.S. REs 51 *and* 52 [EXC: use Table A6e to determine the number of AFV received]. All units must enter along the same edge.

***54** Medium "tube" section arrives! Make a dr [A6d] to determine the number of dm 81mm MTRs received, each of which has one 2-2-7 crew. On a subsequent dr of ≤ 2 the mortar section is equipped with transport. If so, make a DR [U7] with a +2 DRM. All transport vehicles are the same type; only enough vehicles are received to carry these RE units/weapons. Transport can be refused if so desired.

***55** FRIENDLY Airstrike! Determine type, presence of bombs and number entering as per E7.21. Each aircraft is eligible to enter in the next ENEMY MPh. Reroll for another RE if current conditions prohibit air support.

***56** AT Gun section arrives! Determine the number [A6e] and type [U5a] (all are the same type). Each Gun is crewed by one 2-2-7. At the player's option each such reinforcing Gun may be Manhandled or Towed onboard. Determine towing vehicle type [U7] (reroll, if necessary, until a vehicle is determined that is able to Tow the Gun type; all such vehicles are the same type).

***61-62** Artillery support granted! Conduct U.S. RE 31-34 (even if it has previously occurred).

63 Go get'em, boys! All non-Disrupted broken U.S. MMC in the same Location as an unbroken U.S. leader automatically rally. Reroll for a different RE if no MMC are eligible to thusly rally.

64 Tanks! Determine the number [A6d], type(s) [U6] and armor leader [U3]. Perform a separate DR [U6] for each AFV received.

65 Tank Destroyers! Determine the number [A6c], type [U6c] and armor leader [U3]. All are the same type.

66 Hero! A Hero is immediately created from the U.S. MMC closest to an ENEMY unbroken/vehicular unit. If no such ENEMY unit onboard reroll for a different RE.

***71** AT Gun section arrives! Conduct U.S. RE 56 [EXC: use Table A6f to determine the number of Guns received].

72 Tank Destroyers! Determine the number [A6b], type [U6c] and armor leader [U3]. All are the same type.

***73** Gun section arrives! Determine the number [A6d] and type [U5] (use the "Outside" column; all are the same type). Each Gun is crewed by one 2-2-8. At the player's option each such reinforcing Gun may be Manhandled or Towed onboard. Determine towing vehicle type [U7] (reroll, if necessary, until a vehicle is determined that is able to Tow the Gun type; all such vehicles are the same type). Additionally, decrease each ENEMY RE# by one.

***74** ENEMY attack called off! The Attitude of *all* ENEMY units immediately changes to Hold [EXC: if U.S. RE 75-76 has already occurred conduct U.S. RE 46 instead]. All DR on table A1 now have a +1 DRM; all previous negative DRM applicable on this table are immediately cancelled.

***75-76** Evacuate! Battalion HQ has ordered your command to evacuate their positions, pulling back toward U.S. lines [EXC: if U.S. RE 74 has already occurred reroll for a different RE]. Decrease each U.S. RE# by one. The U.S. side receives Exit VP (A26.3) for each U.S. unit exited off the FBE by Mission end. The ENEMY receives Casualty VP (A26.2) for each Encircled U.S. unit remaining onboard at Mission end; double Casualty VP if U.S. unit is Captured/non-Mobile. Otherwise, the Mission-specific VP schedule still applies. The Mission ends automatically in five Game Turns (counting the current Game Turn as the first of those five turns), or when the last Mobile U.S. unit exits the board configuration (whichever occurs first). Ignore the Mission End method given in the Mission being played.



Mission 1 Ⓟ

Cautious Advance

BRIEFING: Your orders are to advance toward and penetrate the enemy lines. Area reconnaissance has established many suspected enemy positions in your sector which have been indicated on your map. As usual, the strength of the enemy is not known but their positions do not appear to be heavily fortified. Specific objectives have been assigned to your unit which must be captured and held.

PREVAILING ATTITUDE (3.2): Hold {A2b}

MISSION TABLES (12.32):

ENEMY SAN		FRIENDLY SAN		ENEMY AC#		RE Numbers	
DR	SAN #	DR	SAN #	dr	AC#	dr	RE#s
2	7	≤ 5	4	1	2	≤ 2	5/6
3-4	6	6-10	3	2-5	3	3-4	4/5
5-6	5	≥ 11	2	6	4	≥ 5	3/4
7-9	4						
≥ 10	3						

MAPBOARD SELECTION & ACTIVATION (13.):

MAPBOARD SELECTION: A8a

INITIAL MAPBOARD: One mapboard is determined {A8a} and placed before FRIENDLY offboard setup.

MAPBOARD ACTIVATION: A maximum of two *additional* mapboards may be activated (one at a time) during play [EXC: as per MSR 2], but only along the (current) EBE. Make a dr whenever a non-broken FRIENDLY unit(s) enters a Location ≤ 5 hexes from any whole hex of the potential mapboard. If the Final dr is > the unit's range to the nearest whole hex of the potential mapboard an additional map is activated {A8a}. There is a +1 drm for each level of elevation the unit is above level 0. If the Final dr is ≤ the range there is no effect.

Initial Mapboard Configuration:





VPO LOCATIONS (14.):

As each mapboard (including the Initial) is placed determine the number {A6c} and placement {A10a} of each ENEMY-Controlled VPO on the new mapboard. The value of each VPO is determined only at Mission end {A10b}.

S? PLACEMENT/ENTRY (4.):

Place S? as per 4.1, cases a, b *and* c, at the start of the Mission (before FRIENDLY forces are set up offboard), and as each additional mapboard is activated, if any.

SEQUENCE:

ENEMY-Controlled VPO are determined {A10a} and S? are set up first on the Initial Mapboard. FRIENDLY units are then set up offboard and may enter anywhere along the FBE on/after Turn 1.

The FRIENDLY side moves first.

MISSION END (see also 12.5):

At the end of Game Turn 10, and at the end of each Game Turn thereafter, perform a dr. If the result is ≤ 2 the Mission ends immediately.

VP SCHEDULE (12.6; 9.41, 17.1321):

- Each side gains VP {A10b} for Control of VPO.
- The ENEMY gains VP for Casualty VP gained.
- The FRIENDLY side gains Casualty VP for each ENEMY AFV/Gun eliminated, or currently Captured, at Mission end.
- The FRIENDLY side gains 3 VP per *non-Initial* mapboard Activated.

MISSION SPECIAL RULES:

1. There is a +1 DRM to each DR on Table A1, and a –1 drm to the colored die of each DR on Table A11.

2. At the beginning of each ENEMY Player Turn in which there are no (partially/wholly) ENEMY-Controlled VPO make a dr on the following Table:

dr	result
≤ 2	No effect
3-4	ENEMY RE*
≥ 5	New mapboard is Activated {A8a} along the EBE

* In Addition to any ENEMY RE occuring due to the Wind Change DR.

Mission 2 Ⓟ

Pockets

BRIEFING: Your command has received orders to make contact with and wipe out several isolated enemy pockets of resistance that were bypassed in the earlier advance. The continued presence of these holdouts endangers the divisional supply line and is subsequently delaying reinforcements from reaching the front. You have been informed of the approximate locations of several of the pockets. It is of paramount importance that each is dealt with swiftly and efficiently.

PREVAILING ATTITUDE (3.2): Hold [A2b]

MISSION TABLES (12.32):

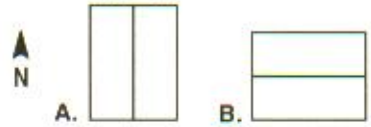
ENEMY SAN DR	ENEMY SAN #	FRIENDLY SAN DR	FRIENDLY SAN #	ENEMY AC# dr	ENEMY AC#	ENEMY RE Numbers dr	ENEMY RE Numbers RE#s	FRIENDLY RE Numbers dr	FRIENDLY RE Numbers RE#s	Boobytrap Level dr	Boobytrap Level Level
2	7	2	4	≤4	3	1	5/6	1	5/6	1	A
3-4	6	3-5	3	≥5	4	2	4/5	2-3	4/5	2-3	B
5-7	5	≥6	2			3-4	3/4	≥4	3/4	4	C
≥9	4					≥5	2/3			≥5	—

MAPBOARD SELECTION & ACTIVATION (13.):

MAPBOARD SELECTION: A8a

INITIAL MAPBOARDS: First, make a Random dr to determine one of the two Mapboard Configurations illustrated below. [EXC to 13.23: if the selected Configuration is B, the board number is placed to the east on a dr ≤ 3.] Two mapboards are determined by a separate DR for each {A8a}. No additional mapboards may be activated during play.

Initial Mapboard Configurations:





VPO LOCATIONS (14.):

There are no VPO in this Mission; see also 9.25.

S? PLACEMENT/ENTRY (4.):

Place S? as per 4.1e [EXC: a *minimum* of 15 S? must be initially placed; if not, repeat the entire S? placement procedure (after removing all previously-placed S?)].

SEQUENCE:

S? are set up first on both mapboards. FRIENDLY units are then set up offboard and may enter anywhere along the FBE on/after Turn 1.

The FRIENDLY side moves first.

MISSION END (see also 12.5):

The minimum number of turns is equal to the sum of all S? initially set up onboard divided by 3 (FRU). At the conclusion of each Player Turn starting on this determined turn, make a dr. On a dr of ≤ 2 the Mission ends immediately.

EX: If 25 S? are set up before play begins the minimum turn length is 9 (25 divided by 3 = 8.3; 8.3 [FRU] is 9). Starting at the end of the FRIENDLY Player Turn of Game Turn 9 the Mission can end on a dr of ≤ 2.

VP SCHEDULE (12.6; 9.41, 17.1321):

- *Each* side gains VP for Casualty VP earned.
- At Mission end the ENEMY gains 2 VP for each S? still on the map. The ENEMY also gains VP (use the standard Casualty VP value; A26.2) for each ENEMY unit/Gun still on the map whether in Good Order or not [EXC: Each such Gun must be ENEMY-possessed; each such vehicle must be non-shocked *and* have ≥ one armament still functioning].

MISSION SPECIAL RULES:

1. An *Enemy* RE can occur even if no ENEMY unit has been Activated.

Mission 3 Ⓟ

Recon

BRIEFING: A recent breach of the enemy lines by your unit's division has created an excellent opportunity for exploitation. Your forces are to act in a reconnaissance role to locate and overcome encountered enemy strongpoints. You are scheduled to be reinforced by a selected force from the division's reconnaissance battalion. Furthermore, the Quartermaster is trying to requisition some transport vehicles to speed your advance. Enemy resistance has not been established but is expected to be rather unorganized and scattered.

PREVAILING ATTITUDE (3.2): Hold {A2b}

MISSION TABLES (12.32):

ENEMY SAN		FRIENDLY SAN		ENEMY AC#		RE Numbers	
DR	SAN	DR	SAN	dr	AC#	dr	RE#s
≤3	7	≤4	3	≤2	2	≤3	4/5
4-5	6	≥5	2	≥3	3	≥4	3/4
6-8	5						
≥9	4						

MAPBOARD SELECTION AND ACTIVATION (13.):

MAPBOARD SELECTION TABLE: A8e [EXC: A8a is used to determine the FRIENDLY setup board.]

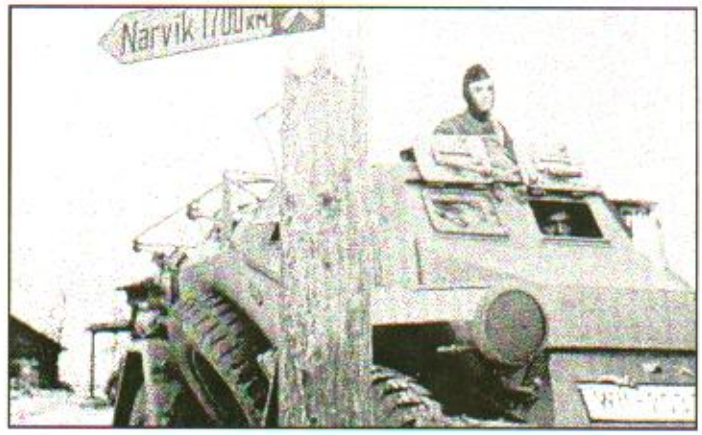
INITIAL MAPBOARDS: Two mapboards are determined before play begins. Use Table A8a to determine the FRIENDLY setup (western-most) mapboard; use Table A8e to determine all other mapboards.

MAPBOARD ACTIVATION: Several additional mapboards may be activated (one at a time) during play, but only along the (current) EBE. Such an additional mapboard is automatically activated whenever a FRIENDLY unit(s) enters a Location within three hexes of any whole hex of the potential mapboard; LOS to a Location of the potential board is not necessary. Further, due to the potential number of mapboards that can be activated during this Mission, the current western-most mapboard is removed at the end of any Game Turn in which there is no Mobile-FRIENDLY/Activated-ENEMY unit currently on it.* Note that this creates a new FBE each time a map is thusly removed. Each Immobile-vehicle/unpossessed-Weapon on such a removed board is lost from play, but the opposing side is not awarded VP for it; reposition any Sniper counter on such a board according to A14.2. There is no limit to the number of boards which may be activated/removed in this manner.

* Side notes should be made if a removed board has ≥ 1 VPO on it so that its (post-game) value can be assessed {A10b}.

Initial Mapboard Configuration:





VPO LOCATIONS (14.):

Determine the number {A6h}, and placement {A10a}, of each ENEMY-Controlled VPO on each mapboard [EXC: no VPO are marked on the FRIENDLY setup board]. The value of each VPO is determined only at Mission end {A10b}.

S? PLACEMENT/ENTRY (4.):

S? are placed as per 4.1c on each mapboard determined on Table A8e (only).

SEQUENCE:

ENEMY-Controlled VPO are determined and S? are placed. FRIENDLY forces are then set up on the westernmost mapboard. All FRIENDLY units may begin the Mission Concealed.

The FRIENDLY side moves first.

MISSION END (see also 12.5):

At the end of Game Turn 10, and at the end of each even-numbered Game Turn thereafter, perform a dr. A Final dr of ≤ 1 results in the Mission ending immediately. There is a –1 drm for every two boards activated *using Table A8e.*

VP SCHEDULE (12.6; 9.41, 17.1321):

- Each side gains VP {A10b} for Control of VPO.
- The ENEMY gains VP for Casualty VP earned.
- *During the Mission* the FRIENDLY side gains VP for the activation of each new mapboard *as well as* certain ENEMY units/Weapons/fortifications, according to the following schedule:

Activated item	VP award
Each non-Initial Mapboard	2
Each ENEMY AFV/Gun	2
Each Pillbox/Trench/Minefield/fortified-building Location	1

MISSION SPECIAL RULES:

1. An ENEMY RE can occur even if no ENEMY unit has been Activated.

2. The ENEMY RE#s are subject to increase [EXC: if already 6/7] at the conclusion of each Game Turn divisible by 5 (e.g., Turns 5, 10, 15, etc.). Make a dr: the ENEMY RE#s increase by one if the dr is > the *lower* of the two current ENEMY RE#s; otherwise there is no effect.

EX: The current ENEMY RE# is 5/6. A dr of 6 will be necessary to increase the ENEMY RE# to 6/7 ("6" is > "5", which is the lower of the two current ENEMY RE numbers).

3. Before setup, make a DR {x7} to determine the type of Transport vehicles granted to your unit [EXC: consider a result of "Wagon" as "None"]. Your unit is granted 6 (or less if < 6 are in a standard counter mix) of this vehicle type. Next, make a DR {x6b} to determine the type of Recon vehicle, and a dr {A6f} to determine the number received (all are the same type). No armor leader(s) {x3} may be generated for any vehicles received due to this MSR. Any/all vehicles (Transport/Recon) may be refused after determination.

Suspect ?

Mission 4

Bunker Busting

BRIEFING: The expected offensive opens today! Your command has received orders to create a breach in the enemy's forward positions through which follow-up units can advance. Reconnaissance reports indicate that the enemy has fortified his frontline with numerous static positions. To assist you in silencing the strongpoints, your unit has at its disposal a supporting section specially equipped with bunker assaulting capabilities. Naturally, speed is of the essence.

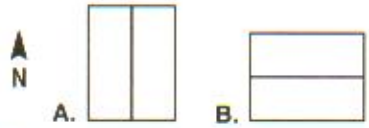
PREVAILING ATTITUDE (3.2): Hold {A2b}

MISSION TABLES (12.32):

ENEMY SAN DR	ENEMY SAN #	FRIENDLY SAN DR	FRIENDLY SAN #	ENEMY AC# dr	ENEMY AC# AC#	ENEMY RE Numbers dr	ENEMY RE Numbers RE#s	FRIENDLY RE Numbers dr	FRIENDLY RE Numbers RE#s	Boobytrap Level dr	Boobytrap Level Level
≤3	7	≤4	4	≤2	2	1	5/6	≤2	5/6	≤2	A
4-5	6	5-8	3	≥3	3	2-3	4/5	3-4	4/5	3	B
6-7	5	≥9	2			4-5	3/4	≥5	3/4	4	C
8-9	4					6	2/3			≥5	—
≥10	3										

MAPBOARD SELECTION & ACTIVATION (13.):
MAPBOARD SELECTION: A8c
INITIAL MAPBOARDS: First, make a Random dr to determine one of the two Mapboard Configurations illustrated below. [EXC to 13.23: if the selected configuration is B, the board number is placed to the *east* on a dr ≤ 3.] Next, two mapboards are determined by a separate DR for each {A8c}. No additional mapboards may be activated during play.

Initial Mapboard Configuration:



VPO LOCATIONS (14.):
Each fortification (including a Fortified Building Location; B23.9) *Activated* {A5} during the Mission is a VPO (see Victory Determination for the VP value of each). No other VPO exist.

S? PLACEMENT/ENTRY (4.):
Place S? as per 4.1, cases a *and* b.

SEQUENCE:
S? are set up first on both mapboards. FRIENDLY units are then set up offboard and may enter anywhere along the FBE on/after Turn 1.
The FRIENDLY side moves first.



MISSION END (see also 12.5):
At the end of Game Turn 10, and at the end of each Game Turn thereafter, perform a dr. If the result is ≤ 1 the Mission ends immediately. There is a –1 drm for each Game Turn completed after Game Turn 10.

VP SCHEDULE (12.6; 9.41, 17.1321):
- Each side gains VP for Control of VPO Locations equal to that fortification's highest TEM (for Direct Fire) times its normal Infantry stacking capacity.
  EX: A 15 Foxhole is worth two VP (2 x 1); a Fortified stone building Location is worth twelve points (3 x 4); a 2+5+7 bunker is worth fourteen points (7 x 2).
- The ENEMY gains VP for Casualty VP earned.
- The ENEMY automatically gains a number of "pre-game" VP for FRIENDLY reinforcements received due to MSR 3 (if any) equal to that table's reinforcement dr.
- The FRIENDLY side gains Casualty VP for each ENEMY AFV/Gun eliminated, or currently Captured at Mission end.
- The ENEMY gains ½ VP per S? remaining onboard at Mission end.

MISSION SPECIAL RULES:
1. There is a +2 DRM to each DR on Table A1, a –1 drm to each dr on Table A5, and a –1 drm to the colored die of each DR on Table A11 and x9.

2. Each Final *even* DR on the ENEMY Activation Table {A1} indicates the possibility of a fortification being Activated (as if "F" were listed in the Table A1 result; 5.74); make a subsequent dr {A5}.

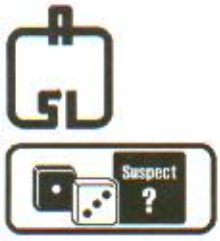
3. Before FRIENDLY setup make a dr on the following table to determine FRIENDLY optional reinforcements; after all such reinforcements are determined the player may opt to keep them *as a group* (allowing the ENEMY a pregame VP gain; see VP Schedule) or play the Mission without them.

dr	Assault unit reinforcements
1	Assault Engineer section[1]
2	Assault Engineer platoon[2]
3	A number {A6e} of Assault vehicle(s) {x6a}; all are the same type[3]
4	A number {A6f} of Assault vehicle(s) {x6a}; all are the same type[3]
5	As per dr of 2 and 3 of this table
6	As per dr of 2 and 4 of this table

[1] Each Assault Engineer section consists of 2 FRIENDLY elite squads (use the type with the highest inherent FP factor); 1 leader (x3; normal DRM apply; reroll, as necessary, until a leader is determined); 2 DC and 1 FT. Each such Combat Engineer squad has a Smoke Exponent factor of 3 (regardless of nationality).

[2] Each Assault Engineer platoon consists of 3 FRIENDLY elite squads (use the type with the highest inherent FP factor); 1 leader (x3; normal DRM apply; reroll, as necessary, until a leader is determined); 3 DC and 2 FT. Each such Combat Engineer squad has a Smoke Exponent factor of 3 (regardless of nationality).

[3] DR {x3} for possible FRIENDLY armor leader is permitted (5.711).



Mission 5 Ⓟ

Take the Highway



BRIEFING: Your unit has been given the important assignment of clearing the road leading eastward out of your sector. As you advance along the road all enemy resistance encountered must be eliminated. You must also take care that the road remains safe and passable to friendly units. Successful completion of the task is vital to the success of a planned assault to be launched imminently by elements now forming to the rear.

PREVAILING ATTITUDE (3.2): Hold {A2b}

MISSION TABLES (12.32):

ENEMY SAN		FRIENDLY SAN		ENEMY AC#		ENEMY RE Numbers		FRIENDLY RE Numbers	
DR	SAN #	DR	SAN #	dr	AC#	dr	RE#s	dr	RE#s
≤3	6	≤3	4	≤2	2	≤3	4/5	1	5/6
4-6	5	4-7	3	≥3	3	≥4	3/4	2-4	4/5
7-10	4	≥8	2					≥5	3/4
≥11	3								

MAPBOARD SELECTION & ACTIVATION (13.):

MAPBOARD SELECTION: A8e

INITIAL MAPBOARDS: Three mapboards are determined {A8e} before play begins. Each mapboard must be placed such that a Road Network (13.231) exists from the FBE to the EBE. A –1 DRM applies to each mapboard determination DR {A9}. No additional mapboards may be activated during play.

Initial Mapboard Configurations:



VPO LOCATIONS (14.):

There are no VPO in this Mission; see also 9.25.

S? PLACEMENT/ENTRY (4.):

Place one S? in each building/woods Location [EXC: 4.11-.13] within a radius {A6f} of hexes of each "Intersection" hex *of the Road Network* on each mapboard. For purposes of this Mission, an "Intersection" hex is defined as any hex with ≥ 3 *road hexsides* (i.e., a hexside crossed by a road depiction). Only one S? may be placed per Location if an overlap occurs. If no Concealment Terrain Locations are within that range, no S? are placed. Regardless of the range, a S? is set up *in* the Intersection hex if such is Concealment Terrain.

SEQUENCE:

S? are set up first on each mapboard. FRIENDLY units are then set up offboard and may enter anywhere along the FBE on/after Turn 1.

The FRIENDLY side moves first.

MISSION END (see also 12.5):

The minimum number of turns is equal to the length of the shortest (if > one exists) Road Network (in road whole/half hexes) divided by five (FRU). At the conclusion of each Player Turn starting on this determined turn, make a dr. On a dr of ≤ 3 the Mission ends immediately.

EX: If the Road Network is 43 hexes in length from FBE to where it exits the EBE, the minimum turn length is 9 [43 divided by 5 = 8.6; 8.6 [FRU] is 9). Starting at the end of the FRIENDLY Player Turn of Game Turn 9 the Mission can end on a dr of ≤ 3.

VP SCHEDULE (12.6; 9.41, 17.1321):

- The ENEMY gains VP for Casualty VP earned.
- At Mission end the ENEMY gains 1 VP for each ENEMY unbroken-unit/S? within four hexes of any Location of the Road Network.
- The FRIENDLY side gains ½ VP for each Road Network hex that is FRIENDLY Controlled, "connected" to the FBE via a contiguous string of other FRIENDLY-Controlled Road Network hexes, *and* not within Normal Range and LOS of any armed, unbroken ENEMY unit. Such a unit's Normal Range can be extended by the Normal Range of a fully-manned and functioning Weapon. For the purposes of this VP Schedule, the maximum Normal Range of any Ordnance Weapon is considered to be 16 hexes; furthermore, a S? is considered to be an unbroken unit and to have the range of an ENEMY First Line infantry squad (the type with the greatest range if > one first line type is available).

MISSION SPECIAL RULES:

1. There is a –1 drm to the colored die of each DR on Table A11.

2. An ENEMY RE can occur even if no ENEMY unit has been Activated.

Suspect ?

Mission 6

The Fortress



BRIEFING: Over the past several weeks struggle for control of the city has been fierce and bloody. Now, after several days of particularly vicious fighting, an important enemy-held building lies within our reach. Your company has been brought out of reserve in order to make good its capture; one concentrated push should put it in your hands. Since heavy resistance is expected, you should use as much stealth as possible when approaching the objective. To assist in the final assault you have been reinforced by a platoon of specially trained combat engineers. Your men are to break through to, capture, and hold the objective; all other concerns are secondary.

PREVAILING ATTITUDE (3.2): Hold {A2b}

MISSION TABLES (12.32):

ENEMY SAN		FRIENDLY SAN		ENEMY AC#		RE Numbers	
DR	SAN #	DR	SAN #	dr	AC#	dr	RE#s
≤ 3	7	≤ 3	4	≤ 2	2	≤ 2	5/6
4-5	6	4-6	3	≥ 3	3	3-4	4/5
6-8	5	≥ 7	2			5	3/4
≥ 9	4					6	2/3

MAPBOARD SELECTION & ACTIVATION (13.):
MAPBOARD SELECTION: A8b & A9 "City" column
INITIAL MAPBOARDS: Two mapboards are determined. Use Table A8b to determine the western-most map. Use the "City" column of Table A9 to determine the eastern-most mapboard. No additional mapboards may be activated during play. Once both mapboards have been determined and alligned, make a dr. On a dr ≤ 3 only the northern half of the mapboard configuration is in play (excluding hexrow Q); on a dr ≥ 4 only the southern half of the mapboard configuration is in play (excluding hexrow Q).

Initial Mapboard Configuration:



VPO LOCATIONS (14.):
Determine one VPO on the eastern-most mapboard (only) using the chart below (choose the VPO that is present on the half of the mapboard in play). This building is the only VPO of the Mission and is the "Fortress" building.

Mapboard	Fortress
1	J4 or BB4
20	H3 or AA4
21	G7 or P7†
22	H4 or W8
23*	F3 or Y7

* All bridges are automatically intact (ignore 13.5).
† Ignore rowhouse wall depictions in building 21P7.

S? PLACEMENT/ENTRY (4.):
Place S? on both mapboards as per 4.1a *and* 4.1c (see also 4.12 {A9e} for S? placement on each mapboard with ≥ 19 rubble-Locations/buildings).

SEQUENCE:
S? are set up first. FRIENDLY units are then set up offboard and may enter anywhere along the FBE on/after Turn 1.
The FRIENDLY side moves first.

MISSION END (see also 12.5):
The minimum number of turns is equal to the sum of all S? initially set up onboard divided by 5 (FRU). At the conclusion of each Player Turn starting on this determined turn, make a dr. On a dr of ≤ 3 the Mission ends immediately.
EX: If 49 S? are set up before play begins the minimum turn length is 10 (49 divided by 5 = 9.8; 9.8 [FRU] is 10). Starting at the end of the FRIENDLY Player Turn of Game Turn 10 the Mission can end on a dr of ≤ 3.

VP SCHEDULE (12.6; 9.41, 17.1321):
The FRIENDLY side wins *only* if all Locations of the "Fortress" (see VPO Locations, above) are FRIENDLY-Controlled at Mission end.

MISSION SPECIAL RULES:
1. There is a +2 DRM to each DR on Table A1, and –1 drm to the colored die of each DR on Table A11 and x9.

2. *DEVASTATED CITY:* Before setup make a dr: if the result is ≥ 4 the city is considered Devastated [EXC: If playing a CG and each mapboard of the *previous* Mission was "Built-up" (4.12), the mapboard is automatically Devastated]. If Devastated, the player performs a Bombardment (C1.8) for rubble/fire (C1.822-.823, respectively) determination *only*; i.e., no units will be affected as there will be none onboard [EXC: All Locations of the "Fortress" building are exempted from rubble/fire created by this method]. ENEMY S? may not be setup in an upper-level Location which cannot be reached from ground level due to stairwell rubbling.

3. All Locations of the "Fortress" are Fortified (see VPO Locations). Each ENEMY Infantry unit in a "Fortress" Location is Fanatic.

4. The FRIENDLY side is reinforced by three Combat Engineer squads and one leader {x3; a Cumulative –2 DRM applies; reroll, as necessary until a leader is determined}, three DC and one FT. Each such Combat Engineer squad has a Smoke Exponent of 3 (regardless of nationaltiy).

Mission 7

Block Party

BRIEFING: The enemy's resolve has stiffened considerably since their fanatical soldiers now have brick and fortified concrete walls around them. Nevertheless, your parent division has been ordered to annihilate all enemy resistance in its sector of the city, and your company must do its part. Your unit, reinforced with a specially-equipped assault detachment, is to capture and hold all enemy-held buildings and fortification to their immediate front. Plans call for your men to advance the friendly lines at least 400 to 500m eastward.

PREVAILING ATTITUDE (3.2): Hold [A2b]

MISSION TABLES (12.32):

ENEMY SAN DR	ENEMY SAN #	FRIENDLY SAN DR	FRIENDLY SAN #
≤ 3	7	≤ 4	4
4-5	6	5-10	3
6-7	5	≥ 11	2
8-9	4		
≥ 10	3		

ENEMY AC# dr	ENEMY AC#
≤ 2	3
≥ 3	4

ENEMY RE Numbers dr	ENEMY RE Numbers RE#s
1	5/6
2-3	4/5
4-5	3/4
6	2/3

FRIENDLY RE Numbers dr	FRIENDLY RE Numbers RE#s
≤ 2	5/6
3-4	4/5
≥ 5	3/4

Boobytrap Level dr	Boobytrap Level Level
≤ 2	A
3	B
4	C
≥ 5	–

MAPBOARD SELECTION & ACTIVATION (13.):
MAPBOARD SELECTION: No roll is necessary on Table A8; instead, automatically make a DR using the "City" column of Table A9 to determine the mapboard.
INITIAL MAPBOARDS: One mapboard is determined. [EXC to 13.23: the board number is placed to the *east* on a dr ≤ 3; otherwise it is toward the west.] No additional mapboards may be activated during play.

Initial Mapboard Configuration:



VPO LOCATIONS (14.):
There are no VPO in this Mission; see also MSR 2.

S? PLACEMENT/ENTRY (4.):
Use Table A9e to place S?.

SEQUENCE:
S? are set up first on the mapboard. FRIENDLY units are then set up offboard and may enter anywhere along the FBE on/after Turn 1.
The FRIENDLY side moves first.

MISSION END (see also 12.5):
At the end of Game Turn 8, and at the end of each Game Turn thereafter, perform a dr. If the result is ≤ 2 the Mission ends immediately.

VP SCHEDULE (12.6; 9.41, 17.1321):
- The ENEMY gains VP for Casualty VP earned.
- The ENEMY automatically gains a number of "pre-game" VP equal to the number of squads received due to MSR 3 (if any).
- The ENEMY automatically gains 3 "pre-game" VP if the FRIENDLY player opts to receive reinforcements due to MSR 4.
- The FRIENDLY side gains 3 VP for each "City Block" devoid of all unbroken opposing non-SMC unit(s) at Mission end. A "City Block" is any group of non-road hexes (for purposes of this definition ignore graveyard roads) containing ≥ 3 building *Locations* and that are completely encircled by (a combination of) road/water-*Obstacle*/board-edge hexes.

EX: On mapboard 1, building F5 (12 building Locations) occupies a City Block, surrounded by the roads from D5 to I4 to I6 to F7. The buildings surrounded by road F7-I6-J6-J8-I9 are not a City Block, however, as that area does not contain ≥ 3 building Locations. For the same reason, the area enclosed by the roads and board edges from A6-C6-D5-F7-I9-I10-A10 is not a City Block, as only 3 building Locations are enclosed therein.

On board 23, the Canal (water Obstacle) helps to define the following City Blocks: E6-H4-P7-P8-L8-E8 (containing 9 building Locations), or the area A7-B3-F1-H4-E6-E8-I10-A10 (containing 30 building Locations).



MISSION SPECIAL RULES:

1. There is a +1 DRM to each DR on Table A1, and a –1 drm to the colored die of each DR on Table A11 and x9.

2. EXC to 9.25: Consider the nearest FRIENDLY-Controlled building Location to be a VPO for ENEMY Move Command purposes.

3. Before FRIENDLY setup make a dr on the following table to determine FRIENDLY optional reinforcements; after such reinforcements are determined the player may opt to keep them *as a group* (allowing the ENEMY a pregame VP gain; see VP Schedule) or play the Mission without them.

dr	Assault unit reinforcements
≤ 3	Assault Engineer platoon[1] (3)
≥ 4	Assault Engineer section[2] (2)

[1] The Assault Engineer platoon consists of three FRIENDLY elite squads (use the type with the highest inherent FP factor); one leader (x3; a Cumulative –2 DRM applies; reroll, as necessary, until a leader is determined); three DC and two FT. Each such Combat Engineer squad has a smoke exponent factor of 3 (regardless of nationality).

[2] The Assault Engineer section consists of two FRIENDLY elite squads (use the type with the highest inherent FP factor); one leader (x3; a Cumulative –2 DRM applies; reroll, as necessary, until a leader is determined); two DC and one FT. Each such Combat Engineer squad has a smoke exponent factor of 3 (regardless of nationality).

4. The FRIENDLY side may opt to supplement his starting OB (allowing the ENEMY a pregame VP gain; see VP Schedule) with either one OBA module *or* a SPG section [EXC: if the FRIENDLY nationaltiy does not have an SPG Generation chart {x6a} only OBA may be selected].

If the OBA module is chosen, determine the OBA's type by a DR on the FRIENDLY nationality's Chapter H "OBA Availability Chart"; also determine ammunition availability {x8}. The player may also supplement his OB with a FRIENDLY 8-0 leader and a radio.

If the SPG section is chosen instead, make a DR on the FRIENDLY SPG Generation Table {x6a} to determine the SPG type, and a dr [A6b] to determine the number received (all are the same type). Once determined, the OBA/Gun(s) may not be refused.

5. *DEVASTATED CITY:* Before setup make a dr: if the result is ≥ 5 the city is considered Devastated [EXC: If playing a CG and each mapboard of the previous Mission was "Built-up" (4.12), the city is automatically Devastated]. If Devastated, the player performs a Bombardment (C1.8) for rubble/fire (C1.822-.823, respectively) determination *only*; i.e., no units will be affected as there will be none onboard. ENEMY S? may not be setup in an upper-level Location which cannot be reached from ground level due to stairwell rubbling.

6. Each ENEMY fully-tracked AFV Activated from Table A1 in a building/rubble Location is Dug In (D9.5-.53); a BMG of a Dug in AFV is automatically Disabled.

Mission 8 Ⓟ

Patrol



BRIEFING: Your company is on patrol, advancing down the road in column. As your lead unit rounds a curve it signals for an abrupt halt—an enemy patrol is approaching along the same road! A quick exchange of fire occurs as units on both sides scurry for the nearest cover. The action begins...

PREVAILING ATTITUDE (3.2): Advance {A2a} (see MSR3)

MISSION TABLES (12.32):

ENEMY/FRIENDLY SAN		ENEMY AC#		RE Numbers	
DR	SAN #	dr	AC#	dr	RE#s
≤ 4	4	≤ 3	3	≤ 2	4/5
5-8	3	≥ 4	4	3-5	3/4
≥ 9	2			6	2/3

MAPBOARD SELECTION & ACTIVATION (13.):

MAPBOARD SELECTION: A8*

* The specific {A8} table used for all boards is determined by Random dr. Use the same table to determine all mapboards generated for the Mission.

INITIAL MAPBOARDS: Two mapboards are determined {A8} before play begins. No additional mapboards may be activated during play. Boards must be placed such that a single Road Network (13.231) exists from the FBE to the EBE.

Initial Mapboard Configuration:



VPO LOCATIONS (14.):

There are no VPO in this Mission; see also 9.25.

S? PLACEMENT/ENTRY (4.):

The ENEMY begins the Mission with an offboard pool of S? equal to $^{2}/_{3}$ (FRU) of the total US# (A1.6) of *all* FRIENDLY units in the player's *at-start* OB.

S? ENTRY: S? (and FRIENDLY units) enter in pre-game "impulses" column as per MSR 1 and 2.

SEQUENCE:

See MSR 2.

MISSION END (see also 12.5):

At the end of Game Turn 8, and at the end of each Game Turn thereafter, make a dr. If the result is ≤ 1 the Mission ends immediately. There is a –1 drm for each complete Game Turn completed after Game Turn 8.

VP SCHEDULE (12.6; 9.41, 17.1321):

- Both sides gain VP for Casualty VP earned.
- The ENEMY earns Exit VP for ENEMY units exited off the FBE. See also 9.41.

MISSION SPECIAL RULES:

1. COLUMN SETUP: All at-start FRIENDLY and ENEMY units must set up and enter in column (E11.5) on a road hex (of their respective entry edge) of the Road Network. Determine the Road Network entry hex by a Random dr (if > 1 exists on that board edge). S? set up offboard in one column (with the two lead S?s of the column ADJACENT to the EBE Road Network entry hex), two S? per Location of the column; any odd S? sets up at column end (i.e., if 19 S? are in the column, the column will be 10 hexes long, with a single S? in the last hex of the column). A vehicle may later be generated from a (former) column S?. FRIENDLY units set up offboard in one column normally (E11.5), with the lead stack of the FRIENDLY column ADJACENT to the FBE Road Network entry hex.

2. COLUMN PREGAME MOVEMENT: Before the Mission begins the lead stack of each column is moved in alternate "impulses" toward the opposite board edge (from edge entered) along the Road Network with the ENEMY having the first "impulse", then FRIENDLY, then ENEMY, etc. The remainder of each column is then moved in sequence behind its lead stack along the Road Network. At an intersection a column must take the road that will insure it of "bumping into" the opposing column (otherwise by Random dr). At the end of any impulse in which LOS has been established between opposing-column units all such in-LOS stacks are revealed. Each such FRIENDLY stack loses concealment {EXC to E11.54}; each such S? (only) is automatically successfully Activated (no AC dr {x1} is made), and each column is immediately Disbanded. These are the positions of units at Mission start (see also MSR 3). Sniper counters are now placed and a Random dr (△) is made to determine the side moving first. The "Defender" column is not pinned (as per E11.536).

3. OFFBOARD UNITS: Each ENEMY/FRIENDLY stack still offboard when play commences enters on/adjacent-to the board-edge Road Network hex (it would have entered) as reinforcement(s) on/after turn 1.

Suspect ?

Mission 9

Enemy Offensive

BRIEFING: The past several weeks have been quiet—almost too quiet. Fortunately, your unit has had ample time and materiel to augment its defensive positions, currently arrayed on a frontage of approximately one km. Increased enemy activity in the divisional area and reconnaissance reports seem to indicate an imminent enemy attack; its strength and timing, however, cannot be predicted. Several key objectives are within your defensive area, each of which must be vigorously defended. Your command must be prepared to hold its sector against each enemy probe or major attack.

PREVAILING ATTITUDE (3.2): Advance {A2a}

MISSION TABLES (12.32):

ENEMY SAN		FRIENDLY SAN		ENEMY AC#		RE Numbers	
DR	SAN #	DR	SAN #	dr	AC#	dr	RE#s
≤ 3	4	≤ 3	6	≤ 2	2	≤ 2	5/6
4-7	3	4-5	5	≥ 3	3	3-4	4/5
≥ 8	2	6-9	4			≥ 5	3/4
		≥ 10	3				

MAPBOARD SELECTION & ACTIVATION (13.):

MAPBOARD SELECTION: A8e

INITIAL MAPBOARDS: Three mapboards are determined {A8e} before play begins [EXC: On a dr of ≤ 2 the westernmost board (only) uses Table A8b]. A –1 DRM applies to each mapboard determination DR {A9}. No additional mapboards may be activated during play.

Initial Mapboard Configuration:



VPO LOCATIONS (14.):

Before setup make a separate dr {A6e} for the two western-most mapboards to determine the number of FRIENDLY-Controlled VPO {A10a} to be marked on each. The value of each VPO is determined only at Mission end {A10b}.

S? PLACEMENT/ENTRY (4.):

The ENEMY begins the Mission with an offboard pool of S? equal to the total US# (A1.6) of all FRIENDLY units in the player's *at start* OB.

S? ENTRY: At the start of each ENEMY RPh in which there is ≥ one unentered S? remaining in the ENEMY's offboard S? pool make a DR [EXC: a DR+3 enter on turn 1]. This sum is the number of S? from the offboard pool which enter during the ENEMY MPh along the EBE according to rule 4.21.

SEQUENCE:

FRIENDLY units and fortifications are set up on the two western-most mapboards. Any number of FRIENDLY units may be held offboard as desired. See also MSR 2, 3 and 4.

The ENEMY side moves first.



MISSION END (see also 12.5):

At the end of Game Turn 7, and at the end of each Game Turn thereafter, make a dr. If the result is ≤ 1 the Mission ends immediately. There is a –1 drm for each complete Game Turn completed after Game Turn 7.

VP SCHEDULE (12.6; 9.41, 17.1321):

- The FRIENDLY side gains 3 VP for each Game Turn completed *after* Game Turn 7.
- Each side gains VP {A10b} for Control of VPO.
- The ENEMY gains VP for Casualty VP earned, as well as Exit VP for ENEMY units exited off the FBE (9.41).

MISSION SPECIAL RULES:

1. There is a +1 drm to the colored die of each DR on Table A11 and x9.

2. Before setup make a dr on the following table to determine the number of DYO Fortification points (H1.6) received by the FRIENDLY side. All fortifications listed on the H1.6 table are available for purchase, as well as the use of A-T Mine factors as a Daisy Chain (B28.531; maximum five A-T factors).

dr	DYO Fortif. Pts.
1	120
2	110
3	100
4	90
5	80
6	70

3. The FRIENDLY side may opt to supplement his starting OB with a Gun section. Make a DR on the FRIENDLY Gun Generation Table {x5; "Outside" column} *or* AT Gun Generation Table {x5a} (at player's option) to determine the Gun type, and a dr {A6f; applying drm, below, if applicable} to determine the number received (all are the same type). Each Gun comes with one Infantry crew. Once determined the Gun(s) may not be refused.

Table A6f drm:

+1 if ≥ 110 DYO Fortification points were received
–1 if ≤ 80 DYO Fortification points were received

4. At the player's option, each/any FRIENDLY Gun received for initial setup (as per MSR 3) may have a transport vehicle determined for it. Make a DR on the FRIENDLY Transport Generation Table {x7}. Reroll, as necessary, until a vehicle is determined that is capable of towing the Gun type. Each transport vehicle must be of the same type.

5. Once all FRIENDLY setup is complete, determine the number {A6c} of Artillery Strike(s) (8.7) the ENEMY receives commencing on the ENEMY Player Turn of Game Turn 1.

6. No FRIENDLY unit may move/advance [EXC: rout] until ≥ one ENEMY unit is Activated/Known.

Suspect ?

Mission 10

Hold The Line

BRIEFING: Your company must hold its perimeter against an expected enemy attack until scheduled reinforcements arrive on the scene. Your out-numbered men may be hard-pressed to withstand the onslaught and, to make matters worse, HQ can not tell you how long you must wait until the promised "fire brigade" arrives. If the defensive line in your sector is breached, it could very well cause the collapse of the division's entire defensive line. The enemy assault *must* be repulsed!

PREVAILING ATTITUDE (3.2): Advance {A2a}

MISSION TABLES (12.32):

ENEMY SAN		FRIENDLY SAN		ENEMY AC#		RE Numbers	
DR	SAN #	DR	SAN #	dr	AC#	dr	RE#s
≤ 4	4	≤ 3	6	1	2	≤ 2	5/6
5-7	3	4-5	5	2-4	3	3-4	4/5
≥ 8	2	6-8	4	≥ 5	4	≥ 5	3/4
		≥ 9	3				

MAPBOARD SELECTION & ACTIVATION (13.):

MAPBOARD SELECTION: A8e

INITIAL MAPBOARD: Two mapboards are determined {A8e} before play begins [EXC: the DR {A8e} for the western-most board has a –2 DRM]. A –1 DRM applies to each mapboard determination DR {A9}. No additional mapboards may be activated during play.

Initial Mapboard Configuration:



VPO LOCATIONS (14.):

There are no VPO in this Mission; see also 9.25.

S? PLACEMENT/ENTRY (4.):

The ENEMY begins the Mission with an offboard pool of S? equal to 1½ (FRD) times the total US# (A1.6) of all FRIENDLY units in the player's *at-start* OB [EXC: each unit granted due to MSR 3/4 is *not* considered in the total].

S? ENTRY: At the start of each ENEMY RPh in which there is ≥ one unentered S? remaining in the ENEMY's offboard S? pool make a DR+4. This sum is the number of S? from the offboard pool which enter during the ENEMY MPh along the EBE according to rule 4.21.

SEQUENCE:

FRIENDLY units and fortifications are set up first on the western-most mapboard [EXC: ≤ 3 MMC (and all Weapons/SMC set up in the same Location) may set up using HIP on *either* mapboard]. See also MSR 2, 3 and 4. The ENEMY side moves first.

MISSION END (see also 12.5):

At the start of FRIENDLY Player Turn 6, and at the start of each FRIENDLY Player Turn thereafter, make a Reinforcement dr. On a Final Reinforcement dr of ≤ 1 the FRIENDLY reinforcements (see MSR 7) arrive in the upcoming MPh. There is a –1 drm for each complete Game Turn completed after Game Turn 5. The game will last for four more complete Game Turns thereafter. [EXC: See also "Special Automatic Victories", below.]

EX: If the player rolls a Final Reinforcement dr of ≤ 1 at the conclusion of Game Turn 10, the game will end at the end of Game Turn fourteen.

VP SCHEDULE (12.6; 9.41, 17.1321):

SPECIAL AUTOMATIC VICTORIES: The ENEMY side wins immediately if it amasses ≥ 25 VP (in Exit and Casualty VP; A26.2-.3). The FRIENDLY side wins at Game end if no ENEMY unit has exited off the FBE. If neither of these conditions are met, use the following VP schedule and the standard (12.6) victory conditions:

- The FRIENDLY side gains 3 VP for each Game Turn completed after Game Turn 6.



- The ENEMY gains VP for Casualty VP earned, as well as Exit VP for ENEMY units exited off the FBE (9.41).

MISSION SPECIAL RULES:

1. There is a +1 drm to the colored die of each DR on Table A11 and x9.

2. Before setup make a dr on the following table to determine the number of DYO Fortification points (H1.6) received by the FRIENDLY side. All fortifications listed on the H1.6 table are available for purchase, as well as the use of A-T Mine factors as a Daisy Chain (B28.531; maximum six A-T factors).

dr	DYO Fortif. Pts.
1	70
2	60
3	50
4	40
5	30
6	20

3. The FRIENDLY side may opt to supplement his starting OB with either an OBA module *or* a Gun section. Once determined, the OBA/Gun(s) may not be refused. [**Note:** Each unit(s) granted due to this MSR is not counted in the US# total of FRIENDLY units to determine entering S?.]

If the OBA module is chosen, determine the OBA's type by a DR on the FRIENDLY nationality's Chapter H "OBA Availability Chart"; also determine ammunition availability {x8}. The player may also supplement his OB with a FRIENDLY 8-0 leader and a radio (or Field Phone).

If the Gun section is chosen, make a DR on the FRIENDLY Gun Generation Table {x5; "Outside" column} or on the FRIENDLY AT Generation Table {x5a} (player's option) to determine the Gun type, and a dr {A6f; applying drm, below, if applicable} to determine the number received (all are the same type). Each Gun comes with one Infantry crew.

Table A6f drm:

+1 if ≥ 60 DYO Fortification points were received
–1 if ≤ 30 DYO Fortification points were received

4. At the player's option, each/any FRIENDLY Gun received for initial setup (as per MSR 3) may have a transport vehicle determined for it. Make a DR on the FRIENDLY Transport Generation Table {x7}. Reroll, as necessary, until a vehicle is determined that is capable of towing the Gun type. Each transport vehicle must be of the same type.

5. Once all FRIENDLY setup is complete, determine the number {A6h} of Artillery Strike(s) (8.7) the ENEMY receives commencing on the ENEMY Player Turn of Game Turn 1.

6. EXC to 9.25: Consider the nearest (in hexes) FBE hex to be the nearest FRIENDLY-occupied VPO for ENEMY Move Command purposes (only).

7. In addition to any FRIENDLY RE reinforcements (if any), the FRIENDLY reinforcements which enter the game (see Mission End) enter on the FBE during the FRIENDLY MPh/APh they first become available, and consist of the following units (do not determine until their turn of entry):

- Make five dr to determine the *number* of FRIENDLY squads, then make one DR {x2} to determine squad type;
- A number of leaders and SW, determined as per H1.8-.83;

EX: Assume the FRIENDLY side is German in August 1942. To determine the number of FRIENDLY reinforcement squads received, the player makes dr of 4, 2, 6, 5 and 3. Summing these five dr, the player receives 20 squads. He then makes a Final DR of 6 {G2}, defining the reinforcement squad *type* as 4-6-7, rendering an Equivalent (H1.74) number of 20 as well. The leaders and SW received are then determined as per H1.81-.83.

Mission 11

Tank Attack!



BRIEFING: Throughout the long night your troops have slept fitfully, hearing the ominous sound of rumbling engines and squealing tracks in the direction of the enemy lines. Knowing that this is a portent of things to come, you visit your soldiers' entrenchments to encourage their steadfastness as they check and clean their weapons. Suddenly, out of the dismal gloom, enemy artillery shells begin whistling down, rudely cracking the morning open. The enemy offensive cannot be far off.

PREVAILING ATTITUDE (3.2): Advance [A2a]

MISSION TABLES (12.32):

ENEMY SAN		FRIENDLY SAN		ENEMY AC#		ENEMY RE Numbers		FRIENDLY RE Numbers	
DR	SAN #	DR	SAN #	dr	AC#	dr	RE#s	dr	RE#s
≤3	4	2	6	≤3	3	≤3	5/6	1	5/6
4-5	3	3-4	5	≥4	4	4-5	4/5	2-3	4/5
≥6	2	5-7	4			6	3/4	≥4	3/4
		≥8	3						

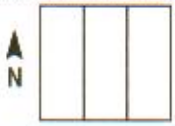
MAPBOARD SELECTION & ACTIVATION (13.):

MAPBOARD SELECTION: A8c/d/e*

INITIAL MAPBOARDS: Three mapboards are determined [A8c/d/e]* before play begins. A –1 DRM applies to each mapboard determination DR [A9]. No additional mapboards may be activated during play.

* The player may freely select which (of the listed A8 Tables) to use to determine each mapboard.

Initial Mapboard Configuration:



VPO LOCATIONS (14.):

There are no VPO in this Mission; see also 9.25.

S? PLACEMENT/ENTRY (4.):

The ENEMY begins the Mission with an offboard pool of S? equal to ½ (FRU) of the total US# (A1.6) of *all* FRIENDLY units in the player's at-start OB (but not including possible RE reinforcements).

S? ENTRY: At the start of each ENEMY RPh in which there is ≥ one unentered S? remaining in the ENEMY's offboard S? pool make a DR. This DR gives the number of S? chosen from the offboard pool to enter during the ENEMY MPh along the EBE according to rule 4.21. See also MSR 7.

SEQUENCE:

FRIENDLY units are set up first on the two western-most mapboards. Any number of FRIENDLY units may be held offboard as desired. See also MSR 2, 3 and 4.

The ENEMY side moves first.

MISSION END (see also 12.5):

At the end of Game Turn 10, and at the end of each Game Turn thereafter, make a dr. If the result is ≤ 1 the Mission ends immediately. There is a –1 drm for each Game Turn completed after Game Turn 10.

VP SCHEDULE (12.6; 9.41, 17.1321):

- The FRIENDLY side gains one VP for each Game Turn completed after Game Turn 10.
- The FRIENDLY side gains Casualty VP for each ENEMY AFV destroyed, and one VP for each ENEMY AFV Immobilized/Abandoned/Shocked (but not Bogged) at Mission end.
- The ENEMY gains VP for Casualty VP earned, as well as Exit VP for ENEMY units exited off the FBE (see 9.41).

MISSION SPECIAL RULES:

1. There is a +1 drm to the colored die of each DR on Table A11 and x9.

2. Before setup make a dr on the following table to determine the number of DYO Fortification points (H1.6) received by the FRIENDLY side. All fortifications listed on the H1.6 table are available for purchase, as well as the use of A-T Mine factors as a Daisy Chain (B28.531; maximum 8 A-T factors).

dr	DYO Fortif. Pts.
≤2	70
3-4	50
≥5	30

3. The FRIENDLY side may opt to supplement his starting OB with an AT section. Make a DR on the FRIENDLY AT Gun Generation Table [x5a] to determine the Gun type, and a dr [A6c; applying drm, below, if applicable] to determine the number received (all are the same type). Each Gun comes with one Infantry crew. Once determined the Gun(s) may not be refused.

Table A6c drm:
+1 if 70 DYO Fortification points were received
–1 if 30 DYO Fortification points were received

4. At the player's option, each/any FRIENDLY Gun received for initial setup (as per MSR 3) may have a transport vehicle. Make a DR on the FRIENDLY Transport Generation Table [x7]; reroll, as necessary, until a vehicle is determined that is capable of towing the Gun type. Each transport vehicle must be the same type.

5. Once all FRIENDLY setup is complete, determine the number [A6d] of Artillery Strike(s) (8.7) the ENEMY receives commencing on the ENEMY Player Turn of Game Turn 1.

6. No FRIENDLY unit may move [EXC: rout] until ≥ one ENEMY unit is Activated/Known.

7. Each Final *even* DR on Table A1 is considered a result of "AFV" [x6]; the printed result is ignored. When an ENEMY vehicle is instructed to move toward a VPO, it instead moves toward the FBE (exiting if possible); 9.25 applies normally to ENEMY Infantry.

Mission 12 Ⓟ

Beseiged

BRIEFING: For several weeks your company has been garrisoning this isolated village in the middle of nowhere, a small part of an elastic "Hedgehog" defense necessary due to the overall strategic situation. Fortunately, things have been relatively quiet, and your men have been granted some much-needed rest when not actively engaged in guard duties or preparing fortifications. During the past few days however, there has been a marked increase in enemy activity in the area. Short range reconnaissance patrols have spotted enemy troops toward almost every point of the compass. Now, the ominous booming of heavy artillery in the distance is a good indication that the foe is about to strike. The problem is, from which direction will they be coming?

PREVAILING ATTITUDE (3.2): Advance {A2a}

MISSION TABLES (12.32):

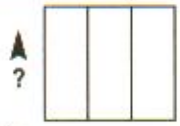
ENEMY SAN		FRIENDLY SAN		ENEMY AC#		ENEMY RE Numbers		FRIENDLY RE Numbers	
DR	SAN #	DR	SAN #	dr	AC#	dr	RE#s	dr	RE#s
≤4	4	≤3	5	≤5	3	≤2	5/6	≤3	4/5
5-8	3	4-8	4	6	4	3-4	4/5	≥4	3/4
≥9	2	≥9	3			≥5	3/4		

MAPBOARD SELECTION & ACTIVATION (13.):

MAPBOARD SELECTION: A9 Village/Farmland

INITIAL MAPBOARDS: Three mapboards are determined before play begins. The center mapboard of the three uses the "Village" column {A9} with a –1 DRM. Use the "Farmland" column {A9} (also with a –1 DRM) to determine the other two mapboards. After the alignment of all mapboards has been determined, the player may freely change the north-south alignment of any *one* mapboard. No additional mapboards may be activated during play.

Initial Mapboard Configuration:



VPO LOCATIONS (14.):

Before setup make a dr {A6a} to determine the number of FRIENDLY-Controlled VPO {A10a} on the center mapboard (only); reroll any VPO not wholly within the FRIENDLY setup area. The (doubled; see VP Schedule) value of each VPO is determined only at Mission end {A10b}.

S? PLACEMENT/ENTRY (4.):

The ENEMY begins the Mission with an offboard pool of S? equal to the total US# (A1.6) of FRIENDLY units in the player's at start OB [EXC: units received due to MSR 3/4].

S? ENTRY: At the start of each ENEMY RPh in which there is ≥ one unentered S? remaining in the ENEMY's offboard S? pool make a DR+4. This sum is the number of S? from the offboard pool which enter during the ENEMY MPh along a random board edge as per MSR 6.

SEQUENCE:

FRIENDLY units and fortifications are set up first on the center mapboard as well as in any hexes of the two other mapboards that are within four hexes of a whole/half hex of the central mapboard [EXC: FRIENDLY units/fortifications may *not* set up in hexrows A-D and DD-GG on all mapboards].

The ENEMY side moves first (see MSR 6).

MISSION END (see also 12.5):

At the end of Game Turn 8, and at the end of each Game Turn thereafter, make a dr. If the result is ≤ 1 the Mission ends immediately. There is a –1 drm for each complete Game Turn completed after Game Turn 8.

VP SCHEDULE (12.6; 9.41, 17.1321):

- The FRIENDLY side gains 3 VP for each Game Turn completed after Game Turn 8.
- Each side gains *double* the normal VP {A10b} for Control of VPO (i.e., each dr {A10b} result is doubled).
- The ENEMY gains VP for Casualty VP earned.



MISSION SPECIAL RULES:

1. There is a +1 drm to the colored die of each DR on Table A11 and x9.

2. Before setup make a dr on the following table to determine the number of DYO Fortification points (H1.6) received by the FRIENDLY side. All fortifications listed on the H1.6 table are available for purchase, as well as the use of A-T Mine factors as a Daisy Chain (B28.531; maximum five A-T factors).

dr	DYO Fortif. Pts.
1	130
2	120
3	110
4	100
5	90
6	80

3. The FRIENDLY side may opt to supplement his starting OB with either an OBA module *or* a Gun section. Once determined, the OBA/Gun(s) may not be refused. [**Note:** Each unit(s) granted due to this MSR is not counted in the US# total of FRIENDLY units to determine entering S?.]

If the OBA module is chosen, determine the OBA's type by a DR on the FRIENDLY nationality's Chapter H "OBA Availability Chart"; also determine ammunition availability {x8}. The player may also supplement his OB with a FRIENDLY 8-0 leader and a radio (or Field Phone).

If the Gun section is chosen, make a DR on the FRIENDLY Gun Generation Table {x5; "Outside" column} or on the FRIENDLY AT Generation Table {x5a} (player's option) to determine the Gun type, and a dr {A6c; applying drm, below, if applicable} to determine the number received (all are the same type). Each Gun comes with one Infantry crew.

Table A6f drm:

+1 if ≥ 120 DYO Fortification points were received
–1 if ≤ 90 DYO Fortification points were received

4. At the player's option, each/any FRIENDLY Gun received for initial setup (as per MSR 3) may have a transport vehicle determined for it. Make a DR on the FRIENDLY Transport Generation Table {x7}. Reroll, as necessary, until a vehicle is determined that is capable of towing the Gun type. Each transport vehicle must be of the same type.

5. Once all FRIENDLY setup is complete, determine the number {A6e} of Artillery Strike(s) (8.7) the ENEMY receives commencing on the ENEMY Player Turn of Game Turn 1 {EXC to 8.71: each received FFE is initially placed on a FRIENDLY-Controlled *VPO* hex; as necessary, determine such VPO placement hex (and/or specific hex of a multi-hex VPO) by Random dr}.

6. All non-RE S? entering during the same turn do so along the same randomly-determined edge (north/east/south/west). However, once S? have entered on three of the four edges the one edge that S? have not yet entered on becomes the FBE. Alternately, the FBE may be determined sooner only if FRIENDLY units must enter "along the FBE" due to a RE, in which case the FBE is determined by Random dr among all edges S? have not yet entered along. Once the FBE is determined by one of the above means, it is considered the West edge for game purposes.

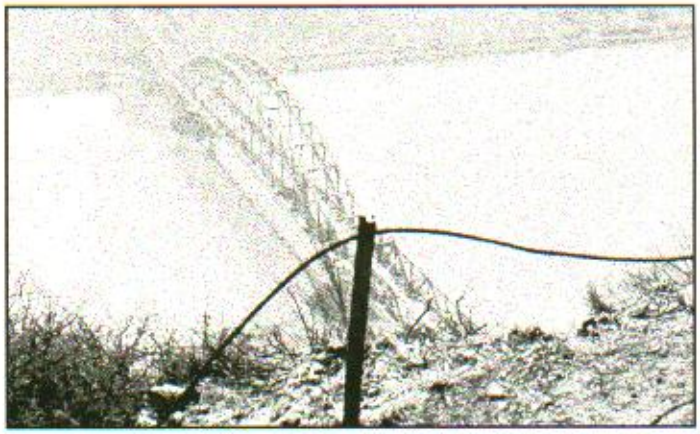
7. Each Advance Attitude S?/*Activated*-unit moves toward the nearest FRIENDLY-Controlled VPO.

8. Each ENEMY RE citing a "flank" attack (e.g., ENEMY RE 36) must be rerolled *unless* the FBE has already been determined (see MSR 6).

Suspect ?

Mission 13 Ⓟ

The Bridge



BRIEFING: For several days the enemy has been vigorously attacking up and down the lines. Until now, resolute and fanatical resistance has held the foe in check, usually repulsing their assaults with heavy losses. News has just arrived, however, that a breakthrough has occurred, and the enemy has sent a substantial force pouring through the ever-widening rift. Your unit (positioned about 1 km to the rear in the second line of defense) has been guarding a strategic river bridge. Now however, you must do your part to help limit the extent of the enemy breakthrough. It is imperative that you demolish the bridge, rendering it unusable to the enemy—but only *after* all friendly units have been safely evacuated to the western side of the river. Be advised that enemy units have been spotted approaching your sector; contact is expected momentarily!

PREVAILING ATTITUDE (3.2): Advance {A2a}

MISSION TABLES (12.32):

ENEMY SAN		FRIENDLY SAN		ENEMY AC#		ENEMY RE Numbers		FRIENDLY RE Numbers	
DR	SAN #	DR	SAN #	dr	AC#	dr	RE#s	dr	RE#s
≤4	4	≤3	5	1	2	≤3	5/6	≤2	5/6
5-9	3	4-7	4	2-4	3	4-5	4/5	3-4	4/5
≥10	2	≥8	3	≥5	4	6	3/4	≥5	3/4

MAPBOARD SELECTION & ACTIVATION (13.):
MAPBOARD SELECTION: See Initial Mapboards, below.
INITIAL MAPBOARDS: Two mapboards are determined before play begins. The western-most mapboard (only) must be a river mapboard; make a Random dr to determine river map (i.e., 7, 8 or 40), then determine the bridge's hexrow location (MSR 2). Next, use Table A8e to determine the eastern-most mapboard (a –1 DRM applies to the subsequent {A9} DR). A Road Network must exist from FBE to EBE, and the bridge must be part of the Road Network. No additional mapboards may be activated during play.

Initial Mapboard Configuration:



VPO LOCATIONS (14.):
There are no VPO in this Mission; the western-most bridge Location is considered a VPO for purposes of rule 9.25.

S? PLACEMENT/ENTRY (4.):
The ENEMY begins the Mission with an offboard pool of S? equal to the total US# (A1.6) of all FRIENDLY units in the player's *at start* OB.
S? ENTRY: At the start of each ENEMY RPh in which there is ≥ one unentered S? remaining in the ENEMY's offboard S? pool make a DR+1. This sum is the number of S? from the offboard pool which enter during the ENEMY MPh along the EBE according to rule 4.21 [EXC: The *only* Letter Chits that are placed in the cup for this Mission (regardless of why the Letter Chits are to be used) are the ones with a letter of a hexrow within six hexrows of the bridge's hexrow; e.g., if the bridge is in hexrow Q, the only chits placed in the cup will be the Letter Chits from K through W, all others are kept out of play for the entire Mission].

SEQUENCE:
FRIENDLY units and fortifications are set up first. At least 50% (in US#) of the FRIENDLY units in the player's at start OB must set up on the *east* side of the river. Each FRIENDLY unit set up on the eastern-most mapboard must do so within five hexes of a whole-hex of the western-most mapboard.
The FRIENDLY side moves first.

MISSION END (see also 12.5):
The Mission ends in one of the following ways:
- The bridge is successfully blown; or
- The ENEMY Controls all bridge Locations and/or all FRIENDLY DC are expended/eliminated/captured.

VP SCHEDULE (12.6; 9.41, 17.1321):
- If all bridge demolition attempts (A23.7) are unsuccessful the ENEMY wins.
- If the bridge demolition attempt is successful (i.e., ≥ 1 multi-hex bridge Location has been reduced to rubble as per A23.7-.71), the FRIENDLY player wins providing the ENEMY has not amassed ≥ 25 Casualty/Exit VP. Each FRIENDLY unit/Gun remaining on the east side of the river when the bridge is successfully blown is considered Captured for VP purposes.

MISSION SPECIAL RULES:
1. There is a +1 drm to the colored die of each DR on Table A11, and an additional Cumulative –1 DRM on Table A1. Additionally, each "AFV" result {A1} is rolled for generation on Table x6b on a subsequent dr of ≥ 3.

2. Only one multi-hex river bridge is allowed; the type is automatically two-lane stone. Use the table below to determine the hexrow the bridge is in, depending on the river mapboard in play.

dr	board 7	board 8	board 40
≤3	Q	Q	Q
4-5	AA	Y	I
6	I	Q	Q

3. The FRIENDLY side has 50 DYO Fortification points. All fortifications listed on the H1.6 table are available for purchase, as well as the use of A-T Mine factors as a Daisy Chain (B28.531).

4. A FRIENDLY RE *automatically* occurs during the first FRIENDLY Player Turn (the normal FRIENDLY RE chance for FRIENDLY Player Turn one is NA). However, the Wind Change DR is still made. Reroll {x9} until a RE occurs that results in ≥ 1 FRIENDLY unit entering. Each FRIENDLY unit entering due to the turn 1 RE is exempt from PANIC on that turn, and must enter on the *east* edge. Each such FRIENDLY vehicle is considered to have already expended ½ of its MP allotment offboard.

5. Any FRIENDLY RE reinforcements entering *due to RE* during turns 2/3 must do so along the north and/or south edge (player's choice) *east* of the river; all units of the same RE group must enter on the same edge. Such FRIENDLY RE reinforcement can not be delayed; they must enter on the turn received. After turn 3 all FRIENDLY RE reinforcements enter normally (as per 15.5). Any Gun RE group *must* be in tow (or portaged, as applicable; e.g., dm 81mm MTR).

6. ENEMY RE units can enter only along edges of the *non-river* mapboard.

7. The FRIENDLY bridge demolition team enters anywhere along the FBE following a Reinforcement dr ≤ the current turn number. The team consists of one elite squad (use the type with the highest inherent FP factor), one 9-1 leader and two DC.

8. A Good Order ENEMY Infantry unit starting its turn in a Set DC hex automatically attempts Set DC Clearance (A23.72).

Mission 14

Human Wave



NOTE: This Mission should only be played with the Russians/Japanese as the ENEMY.

BRIEFING: The situation at the front has stabilized for a few weeks, enabling your men to construct front-line fortifications, as well as getting a bit of well-deserved R&R. Veterans now, your men have witnessed a lot, but perhaps nothing as unnerving as the masses of slavic hordes advancing irresistibly across the seemingly endless Russian landscape. Frequently whipped into a vodka-induced frenzy and shouting "Urrah! Urrah!", the human wave continues forward, usually at the pistol point of a desperate Commissar. It is just such a sight that is about to now unfold.

PREVAILING ATTITUDE (3.2): Advance {A2a}

MISSION TABLES (12.32):

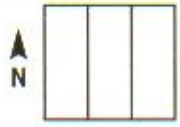
ENEMY SAN		FRIENDLY SAN		ENEMY AC#		RE Numbers	
DR	SAN #	DR	SAN #	dr	AC#	dr	RE#s
2	5	2	6	≤ 2	2	≤ 2	5/6
3	4	3-4	5	≥ 3	3	3-4	4/5
4-7	3	5-8	4			≥ 5	3/4
≥ 8	2	≥ 9	3				

MAPBOARD SELECTION & ACTIVATION (13.):

MAPBOARD SELECTION: A8c

INITIAL MAPBOARDS: Three mapboards are determined {A8c} before play begins [EXC: On a dr of ≤ 4 the western-most board (only) uses Table A8b]. A –1 DRM applies to each mapboard determination DR {A9}. No additional mapboards may be activated during play.

Initial Mapboard Configuration:



VPO LOCATIONS (14.):

Before setup make a dr {A6b} for the western-most mapboard (only) to determine the number of FRIENDLY-Controlled VPO {A10a} to be marked on it. The value of each VPO is determined only at Mission end {A10b}.

S? PLACEMENT/ENTRY (4.):

On Turn 1 one Russian Human Wave enters (4.31) along the EBE. At the start of each ENEMY RPh thereafter (until five non-RE Human Waves have entered) the player makes a Wave Entry dr; on a Final Wave Entry dr of ≤ 6 another Human Wave enters during the MPh of that Player Turn along the EBE. There is a +1 drm for each non-RE Human Wave already entered during the Mission.

SEQUENCE:

FRIENDLY units and fortifications are set up on the two western-most mapboards. Any number of FRIENDLY units may be held offboard as desired. See also MSRs 2, 3 and 4.

The ENEMY side moves first.

MISSION END (see also 12.5):

At the end of Game Turn 10, and at the end of each Game Turn thereafter, perform a dr. If the result is ≤ 2 the Mission ends immediately.

VP SCHEDULE (12.6; 9.41, 17.1321):

- The FRIENDLY side gains 1½ VP for each non-RE Human Wave entered.
- Each side gains VP {A10b} for Control of VPO.
- The ENEMY gains VP for Casualty VP earned, as well as Exit VP for ENEMY units exited off the FBE (4.323) [EXC: each Human Wave S? exited counts as four Exit VP].

MISSION SPECIAL RULES:

1. There is a +1 drm to the colored die of each DR on Table A11 and x9.

2. Before setup make a dr on the following table to determine the number of DYO Fortification points (H1.6) received by the FRIENDLY side. All fortifications listed on the H1.6 table are available for purchase, as well as the use of A-T Mine factors as a Daisy Chain (B28.531; maximum 5 A-T factors).

dr	DYO Fortif. Pts.
1	110
2	100
3	90
4	80
5	70
6	60

3. Make a DR on the FRIENDLY Gun Generation Table {x5; "Outside" column} to determine a Gun type. After determining the Gun type the player can decide whether or not he wishes to add this to his OB; if accepted, make a dr {A6f; applying drm, below, if applicable} to determine the number received (all are the same type). Each Gun comes with one Infantry crew.

Table A6f drm:

+1 if ≥ 100 DYO Fortification points were received
–1 if ≤ 70 DYO Fortification points were received

4. At the player's option, each/any FRIENDLY Gun received for initial setup (as per MSR 3) may have a transport vehicle determined for it. If desired, make a DR on the FRIENDLY Transport Generation Table {x7}; reroll, as necessary, until a vehicle is determined that is capable of towing the Gun type. Each transport vehicle must be of the same type.

5. The FRIENDLY side receives one OBA module available at game start. Determine type by DR on the FRIENDLY nationality's Chapter H "OBA Availability Chart"; also determine ammunition availability {x8}. The player may supplement his OB with a FRIENDLY 8-0 leader and a radio (or Field Phone).

6. Once all FRIENDLY setup is complete make a dr; if ≤ 3 the Russian receives a number {A6d} of Artillery Strike(s) (8.7) commencing on the ENEMY Player Turn of Game Turn 1.

T. BLOOD REEF: TARAWA

ORDER OF PRESENTATION:

1. PATHFINDERS
2. BRT OCEAN & REEF
3. BRT SAND
4. BRT PALM TREES
5. PRINTED RUBBLE
6. BUNKERS & PILLBOXES
7. BRT TOWERS
8. GUN EMPLACEMENTS
9. PORT OF BETIO
10. BETIO SEAWALL
11. EXCAVATION DITCH
12. GULLIES
13. AIRFIELD
14. OFF-MAP TERRAIN
15. BLOOD REEF: TARAWA CAMPAIGN GAMES

1. PATHFINDERS



1.1 Pathfinders provided invaluable guidance to the U.S. Marine tanks and non-amphibious vehicles crossing the reef to the beach at Betio[1]. A Pathfinder is represented by a SMC with a Strength Factor of 0-0-9. If it fails a MC, the Pathfinder is considered wounded and the counter flipped to the wounded side where it displays a Strength Factor of 0-0-8 and must undergo a Wound Severity dr (A17.11). If a wounded Pathfinder fails a MC it is eliminated; a Pathfinder never breaks, is immune to Heat of Battle (A15.), Unit Substitution (A19.) and enforced Pin results [EXC: Wounds (A15.22)]. A Pathfinder's current printed Morale Level is never lowered, but could be increased to 10 (9 if wounded) by various causes (A.18).

1.2 Normally, U.S. Marine forces will be allocated one Pathfinder for each non-amphibious vehicle that enters or sets up Wading. During (CG) scenario setup, each Pathfinder is assigned to escort one vehicle (and only that vehicle). A Pathfinder may only move using Armored Assault (D9.31) with its escorted vehicle (even if the vehicle is unarmored, although no TEM would apply). Pathfinders may not use Double Time movement.

1.3 A Pathfinder is immediately Eliminated if it is not in the same Location as its escorted vehicle, if it occupies the same hex as an enemy unit, or its escorted vehicle enters a Beach or Hinterland hex or becomes Immobilized/Eliminated.

1.4 A Mired vehicle accompanied by a Pathfinder receives a –2 drm to the colored dr of its Ocean Bog Removal DR (2.31).

2.0 BRT OCEAN & REEF

2.1 Any hex with its hex-center-dot covered in ocean blue is a *BRT* Ocean hex (EX: hexes W11 and V15). All Ocean hexes are Submerged-reef (G13.431) [EXC: hexes Y11 and Z10 are Exposed Reef (G13.431)].

2.2 *BRT OCEAN-HINTERLAND HINDRANCE:* All LOS/LOF to or from an Ocean Location is subject to a +1 LV Hindrance for each Hinterland hex depiction which is crossed to or from the target hex. This hindrance is not applicable with any other in-hex hindrance nor does it affect any Fire Lane.

EX: See the accompanying illustration at right. An attack by the 4-4-8 vs. the 6-6-8 will receive a +2 Hindrance DRM (+1 each for Palm-Debris hexes R36 and R37), and an attack vs. the 7-6-8 would also receive a +2 Hindrance DRM (+1 for Hinterland hex Q37 and +1 for the Palm-Debris in hex R37). An alternate-grain 2FP Fire Lane attack through Q37 to S39 would receive only the +1 Palm-Debris Hindrance, would be resolved on the 1FP column vs the 6-6-8, and would not affect the 7-6-8 (2.4).

2.3 *WADING VEHICLES:* A Hull Hit versus an AFV Wading in Ocean receives a +1 DRM applied to the To Kill DR.

2.31 Swamping (G13.4222) in Ocean is NA. Any non-amphibious vehicle that enters a Ocean hex must make a Ocean Bog DR that is modified by the following DRM (no other DRM apply):

+1 if not fully-tracked
+2 if moving into Wire
+3 if without escorting Pathfinder (1.0)
+1 if escorting Pathfinder is wounded

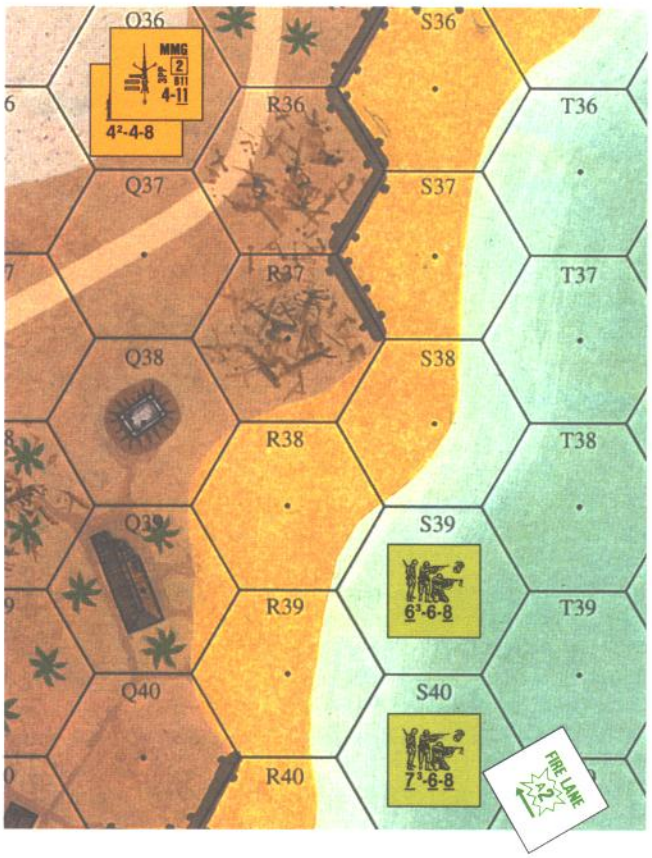
Any vehicle that Bogs in a Ocean hex is automatically Mired. The Mire drm to the colored dr of an Ocean Bog Removal DR is +2, but a CE AFV receives a -1 drm and a vehicle escorted by a Pathfinder receives a -2 drm to the colored dr of its Ocean Bog Removal DR.

2.4 *RESIDUAL FIREPOWER & FIRE LANES:* All Residual FP in an Ocean hex is reduced by one additional column. Fire Lanes end in the first Ocean hex entered and affect such an Ocean location on the next FP column to the left. See the 2.2 example.

2.5 *BRT TETRAHEDRONS:* The following rules for the use of tetrahedrons apply in addition to G14.51. Whenever any vehicle enters or changes VCA in a tetrahedron-Ocean hex, the tetrahedron's owner makes a dr (one dr per VCA hexspine changed). On a Final dr of 1, the vehicle is subject to an A-T Mine attack (B28.52). Additional A-T mine factors may be purchased from the FPP Chart, and are secretly recorded as being added to the inherent A-T capability of a tetrahedron. Each additionally-purchased A-T mine factor adds a -1 drm to the above dr for that tetrahedron.

3.0 BRT SAND

3.1 Any predominately golden-yellow hex is a Beach hex. All Beach hexes are Hard Sand. All Hinterland hexes are considered Soft Sand (G13.3) [EXC: building, rubble, runway/taxiway, pier, bridge, or—for movement purposes—if using a road]. A Sand Bog DR (G13.32) is not required for each Hinterland Sand Location entered, but is instead made only once per MPh upon entering a Soft Sand Location as if it was Mud (D8.23). All Bog Removal attempts in a land hex receive a -1 drm to the colored dr. Movement penalties for Japanese Infantry units entering a Soft Sand Location (F7.3) are modified [EXC: when Manhandling a Gun] by adding 1/2 MF (+COT) instead of 1 MF. Sand MF/MP penalties, including F7.3, are NA for units entering a pillbox, a building obstacle, a rubble, runway/taxiway, pier, or bridge Location, or using a road.



3.2

3.2 Emplaced Guns receive a +2 TEM. Fortification restrictions (F7.42) are NA [EXC: a trench/foxhole has a +2 TEM vs OBA/Bombardment], nor are ordnance or OBA attacks halved (F7.4) vs unarmored units in a building, pillbox, Command Bunker (6.1), or bombproof (6.5) [EXC: a pillbox, Command Bunker, or bombproof (and any unit therein) does receive the F7.4 -2 DRM to its Bombardment MC].

4.0 BRT PALM TREES

4.1 Palm trees are represented on the *BRT* map by 2-4 leafy symbols in a hex (EX: hex R10). The rules for palm trees (G4.1) are modified as follows. A palm tree hex is treated as out of season (B14.2) vs aerial LOS/LOF/Sighting-TC. During a Tarawa Naval Bombardment, an affected palm tree hex, including palm-debris-palm (4.23), must take a NMC with a Morale Level of 8 [EXC: Building-Palm, which takes a normal building NMC (4.3)]. Failure of the Naval Bombardment MC (as well as any event during play that would ordinarily result in placement of a shellhole counter; B2.1 & C1.823) causes debris; place a Palm Debris counter in the hex. Palm trees (including palm-debris) are not burnable terrain.

4.2 *PALM DEBRIS:* Palm debris (EX: S35) is Inherent Terrain (B.6) and Concealment Terrain (A12.12). It has a +1 TEM and is a half-level LOS Hindrance. Palm-Debris provides a +1 DRM vs a Sighting TC (E7.32).

4.21 *MF/MP:* Infantry must expend one MF +COT (including Sand) to enter a palm debris Location. Only a fully-tracked AFV may enter palm debris and does so by expending 1/4 (FRU) of its MP allotment and taking a Bog Check with an additional +1 DRM. Dash (A4.63), road bonus (B3.4), and the 1/2-MP road rate are NA in a road hex covered by palm debris, except via a TB.

4.22 *FORTIFICATIONS:* Placement of a Palm Debris counter removes all Entrenchment counters in that hex (although not necessarily their contents) after resolving all attacks against their occupants; otherwise, a Fortification may exist in a palm debris Location unless other terrain/Fortification(s) therein prohibit it. Palm debris may be Cleared as if the Location were Fallen rubble (B24.71).



4.23 *PALM-DEBRIS-PALM:* Some hexes contain palm debris with both the palm and debris depictions (EX: hex J12). A palm-debris-palm hex is a full-level LOS Hindrance. Placement of a Palm Debris counter in such a hex changes it to a normal palm debris hex.



4.3 *BUILDING-PALM:* A hex containing both building and palm tree depictions is a Building-Palm hex (EX: hex Q10).

4.31 In Building-Palm hexes, the terrain effects of both terrain types are cumulative as per B.1. That is, the entry COT (prior to any further modification) for Infantry is 3 MF and that for vehicles is 1 MP plus normal building COT.

4.32 Units may bypass the building obstacle (unless otherwise prohibited; A4.3, D2.3-.31) by moving through the palm tree portion of the Building-Palm hex and in such case would be treated as if moving through a Palm location (4.1).

4.33 A LOS through a Building-Palm hex (i.e., a LOS that is not blocked by the building) is subject to the normal palm tree LOS rules.

4.34 The TEM of a Building-Palm hex is +2 or +3 according to the type of building (wooden or stone).

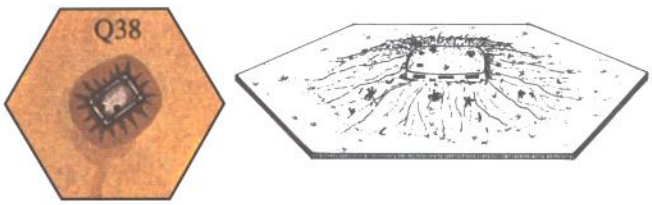
4.35 The Kindling Number of a Building-Palm hex is that of the building.



5.0 PRINTED RUBBLE

5.1 The BRT map depicts printed rubble Locations (EX: hex K13) all of which are treated exactly as if a corresponding rubble counter were in that Location. Ignore small portions of the artwork extending across a hexside into an adjacent non-rubble Location.

5.2 *CLEARANCE: Printed* rubble is not considered Fallen and so cannot be cleared (B24.71).



6.0 BUNKERS & PILLBOXES [1]

6.1 *COMMAND BUNKER:* A Command Bunker is a special type of Single-Story Stone Building and is represented on the BRT map as a stone building enclosed by two-toned brown contour lines (with the darker contour lines on the inside) (EX: hex Q38). A Command Bunker is treated as a Fortified Building and the contour lines are part of the building for LOS purposes. All Japanese Personnel units in a Command Bunker hex are considered Fanatic (A10.8) [EXC: such Fanatic status expires immediately at the end of a CG scenario]. A unit entering from outside the Command Bunker hex becomes Fanatic immediately prior to all Defensive First Fire against it. A Japanese unit already Fanatic receives no further benefit. All fire from a Command Bunker is resolved as Area Fire [EXC: from the Rooftop Location (see 6.12) or by a non-Captured Japanese MG]. No Gun or vehicle may enter/set-up-in any Location of a Command Bunker. A Command Bunker is not burnable terrain and has a Morale Level of "12" for Bombardment purposes (C1.8).

6.12 *COMMAND BUNKER ROOFTOP:* A Command Bunker contains a Rooftop Location (B23.8) at Level 1 with a +2 TEM vs Direct Fire. A Command Bunker Rooftop Location is Concealment Terrain for setup purposes only. Once the first RPh has been completed, B23.82 comes into effect. A Command Bunker Rooftop Location is not considered a building Location for rout or Victory Condition purposes. Infantry units may directly enter a Rooftop location from an adjacent hex [EXC: across hexside L44-M45 as indicated by the lack of dark contour facing that hexside] at a cost of 4 MF for Marines and 3 MF for Japanese.

6.2 *ISLAND COMMAND BUNKER:* Hex M45 contains the Island Command Bunker (ICB) which is a Command Bunker with a +5 TEM. FT attacks against this building must add the TEM to the attack unless the FT fires from within the same hex. The ICB may not be destroyed/rubbled in any way (including Bombardment).

6.21 *UNDERGROUND:* An underground location exists beneath the ICB as if it were a lower level of a building [EXC: this location is NA for building control purposes]. The normal stacking capacity of an ICB underground location is two squad-equivalents. The ICB underground location is accessible (via an inherent stairwell) only from the ground level of the ICB and LOS to/from the ICB underground location is limited to the ground level of the ICB. The ICB underground location has a +4 TEM. Only Infantry/SW may set-up-in/enter the ICB underground location, and their presence therein is indicated by placing them beneath the ICB underground counter. As per 6.32, any trench adjacent to an ICB is considered to connect to the ground level only (i.e. not the ICB underground location); however, a Passage (6.4) can connect to the ICB underground location

6.3 *BRT PILLBOXES:* Both HIP and "free" tunnels (G1.632) are NA for pillboxes on Betio.

6.31 *1+4+6 PILLBOX:* Use Cave counters to represent 1+4+6 pillboxes; treat these as pillboxes in all respects.

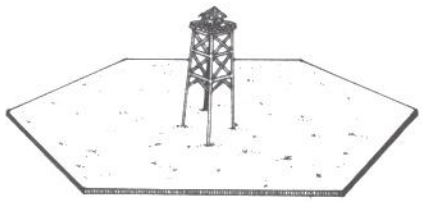
6.32 *BUNKERS:* The Japanese player automatically receives one Trench counter or Passage (6.4) for every two OB-given/purchased pillboxes (FRU). These trench counters must be used to create Bunkers (B30.8) and are restricted to setting up in the same setup area as that of the pillbox(es) they come with.

6.33 *All* trenches are considered to "connect" (as per B30.8) to (but not through) all ADJACENT building Locations. Infantry entering such a building Location need not pay an extra MF to leave the trench in that Location, but must still pay applicable building COT. Infantry leaving such a building Location need not pay an extra MF to enter a "connecting" trench. Infantry may not enter such a trench while using Bypass Movement; nor may they use Bypass Movement while in such a trench; nor may they exit such a trench to directly use Bypass Movement. A unit entering/leaving a building Location via a "connecting" trench is not subject to Snap Shots as it does so. A vehicle must pay the appropriate MP-costs/penalty to cross such a trench while using VBM; hence those vehicle types not allowed to cross a trench may not do so while using VBM. Infantry may enter a Fortified Building Location as if that Location were not fortified provided they enter it from a trench that is "connected" to that building Location.

6.4 *PASSAGE:* A Passage is a Fortification counter treated as a one-hex Tunnel (B8.6) and is obtained in lieu of a Trench counter. Its entrance/exit must be in a building, Pillbox, Bombproof, or Command Bunker Location. A Passage counter is eliminated when either of its entrance/exit Locations is eliminated or rubbled or per B8.61.

6.5 *BOMBPROOF:*[2] A bombproof is a Fortification counter that cannot set up in/adjacent to a Beach hex. Except as otherwise stated, a bombproof is treated as a pillbox with normal (A5.) Location stacking limits that does not have a CA.

6.51 *TEM/ATTACKS:* A bombproof has a +4 TEM and a Morale level of 10 vs Bombardment (C1.822). All fire from a bombproof is halved as Area Fire [EXC: non-Captured Japanese MG.]



7.0. BRT TOWERS

7.1 Towers represent tall, narrow building-like structures that contain an upper level Location with no ground level Tower Location (although the hex contains a Location at ground level), and are represented on the BRT map by an obviously square, single-hex brown structure containing a large white center dot (EX: F7, P9 and L49).[3] A Tower (but not the ground level Location of its hex) is treated as a wooden building unless otherwise stated.

7.2 A *BRT* Tower is a 2 1/2 Level LOS hindrance. Each Tower contains only a single Tower location at level 2. All Towers are subject to a -2 drm on any Rubble Creation dr (B24.11), and any result that would cause placement of rubble instead causes it to Collapse, eliminating all units in the Tower Location (see 7.41) Place a Collapsed counter (G5.5) on such a tower, after which G5.51 applies. Every unit occupying the ground level Location of a Tower when it Collapses is subject to the appropriate G5.5 PTC.

7.21 *STACKING:* The stacking capacity of a Tower hex's ground level Location is unaffected by the presence of the Tower. A Tower Location has a normal stacking limit (A5.1) of one HS-equivalent and 5PP. Towers have no Rooftop Locations and may never be Fortified.

7.3 *TEM:* A unit at the ground-level Location of a Tower hex is considered to be occupying the other terrain in that hex and so uses the TEM of that other terrain. A Tower Location has a TEM of 0, although units therein are eligible for the +1 Height Advantage TEM. Units entering a Tower hex/Location are not subject to FFMO, even if fired on from the same or higher elevation.

7.4 *MOVEMENT & TEM:* The ground-level Location of a *BRT* Tower is Soft Sand (3.). A Gun may neither set up in nor enter, nor may a dm Gun be assembled in, a Tower hex/Location.

7.41 Vehicles must use VBM to enter a Tower hex. Fully-Tracked, BU, CT, AFV may also enter the Tower obstacle as per B23.41 [EXC: a Tower has no cellar and adds an extra -1 drm to the colored dr of the AFV's Bog Check as though the tower was a single-story building, but see 7.2 if the AFV rolls a final colored dr ≤ 0.

7.42 Infantry may move to/from a Tower Location via the Tower's stairwell at a cost of 1 MF per level changed. A unit may never end it's MPh in an intermediate stairwell Location (i.e., it must end its MPh either in the Tower Location or in the Tower Hex's ground-level Location).

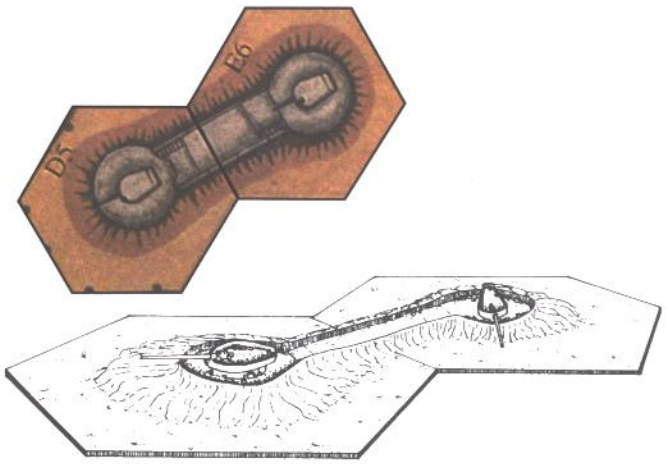
7.43 Infantry moving to/from a Tower Location via the Tower's stairwell may be attacked at ground level (if descending) and/or the Tower Location (if ascending) in the normal manner. They may also be attacked at the first-level "quasi-Location" of that hex by a unit that has a LOS to that quasi-Location. Such a quasi-Location is not considered Open Ground, but such an attack vs it receives no TEM. The target is assumed to expend one MF per level changed; if pinned or broken while at that quasi-Location it reverts to the level it was attempting to *leave* (and may be attacked by any Residual FP at that level as it re-enters it). The Residual FP left by an attack vs such a quasi-Location remains at that level (place the Residual FP counter on the appropriate Level counter) to attack each unit subsequently entering that level in that hex during the same MPh.

7.5 *CONCEALMENT:* The other terrain in a Tower hex determines whether or not the ground-level Location of that hex is Concealment Terrain. A Tower Location is treated like a building Rooftop (O.5; B23.82) for HIP/concealment purposes (only).

7.6 *ROUT:* A Tower hex/Location is not considered a building for rout purposes.

7.7 The ground-level Location of a Tower hex is not considered a building Location for Victory purposes, but the Tower Location is.

7.8 Towers have a Morale Level of 7 for Bombardment (C1.8) purposes. A Japanese unit in a Tower may act as a Spotter (C9.3) for any mortar, 120L AA, 140L ART, or 8-in. Gun that is within three hexes of it as if such weapon was an adjacent mortar [EXC: the minimum range for any non-mortar, non-Type 92 Inf Gun (including the 8-in. Guns) is 7 hexes for Spotted Fire]. Otherwise, normal minimum ranges apply. Spotted fire is treated as Indirect Fire.



8.0 GUN EMPLACEMENTS

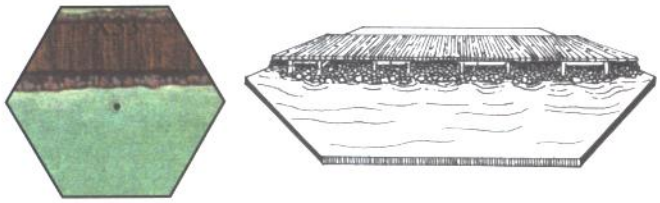
8.1 The two 8-in. Gun Emplacements installed by the Japanese on the western end of Betio are represented on the *BRT* map by the gray, two-hex, building-like structure in hexes D5 and E6 enclosed by two-toned brown contour lines.[4] The Gun Emplacement structure (including the contour lines) is a half-level LOS obstacle. No Fortification, Gun, or vehicle counter may set-up-in/enter a Gun Emplacement hex. Infantry in a Gun Emplacement hex receive a +1 TEM. Each Gun Emplacement hex contains one 8-in. Gun Turret (8.2).

8.2 *8-IN GUN TURRETS:* The turrets that housed the Vickers 8-in. Coastal Defense Guns on Betio are represented by special Armored Cupola counters. Each 8-in. Gun Turret is treated as an Open Topped Armored Cupola (D9.5, SSR BRT 12) with a large (-1) Target Size, front and side AF of 2, a rear AF of 0, a ST turret, an inherent vehicular crew, and a MA consisting of a 200L Gun with a minimum range of 12 hexes and a maximum range of 500 hexes (see Japanese Vehi-

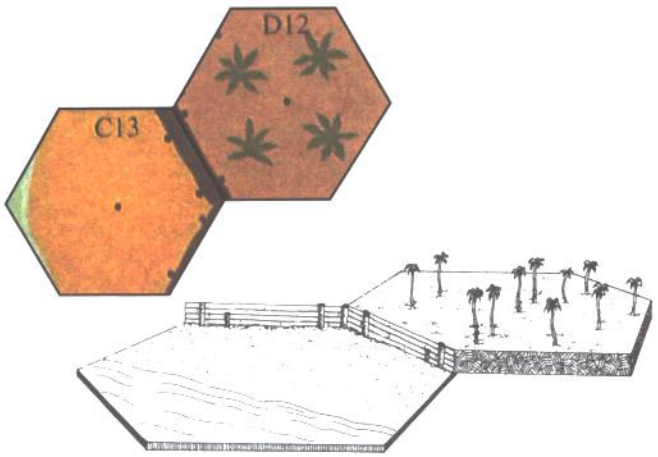
cle Note 19). The manning crew cannot BU (even if Stunned) and receives a +3 CE DRM. An 8-in Gun Turret counter is treated as an immobile, Open-Topped AFV for CC purposes [EXC: PAATC NA] and is considered equal to two squad-equivalents for stacking purposes. Due to the elevated status of the Gun turret in hex E6, attacks by/vs the Gun Turret in hex E6 treat the Gun Emplacement in hex D5 as if it were non-existent (i.e., ignore the D5 Gun Emplacement altogether). Any non-CC attack that eliminates the Armored Cupola also eliminates all Personnel in the hex.

9.0 PORT OF BETIO

9.1 The small port of Betio is represented on the BRT maps by the Ocean hex abutting the S33 Hinterland hex. The port is protected on two hexsides (T31-T32 and U32-T32) by a stone jetty. This jetty is a one-level LOS obstacle and is impassable to all ground units.

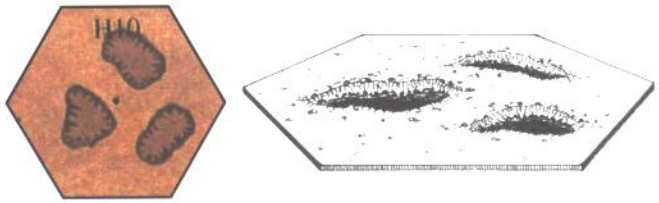


9.2 *BETIO PIERS:* Two printed wooden piers exist on the *BRT* map (EX: hex X33) at Level 0. All rules applicable to a wooden pier represented by counters (G13.7) apply except as stated otherwise. A pier Location is treated as a non-open ground location. There is no Location beneath the pier in hexes T33, U33, and V33. No fortifications may set up in a pier Location. Each Location beneath a pier has a maximum stacking capacity of one squad-equivalent and 3PP and is not affected by Residual FP/Fire-Lane *on* a pier Location. The Japanese may set up beneath a pier Location if it is within the stated Japanese setup area. A unit may move across a sand hexside to/from a pier as per G13.73.



10.0 BETIO SEAWALL

10.1 The brown hexside depiction between some Hinterland and Beach hexes (EX: hexside C13-D12) is a low seawall (G13.6). If opposing units begin a scenario in adjacent hexes which share a common seawall hexside, the unit(s) on the Beach begin the scenario with Wall Advantage.



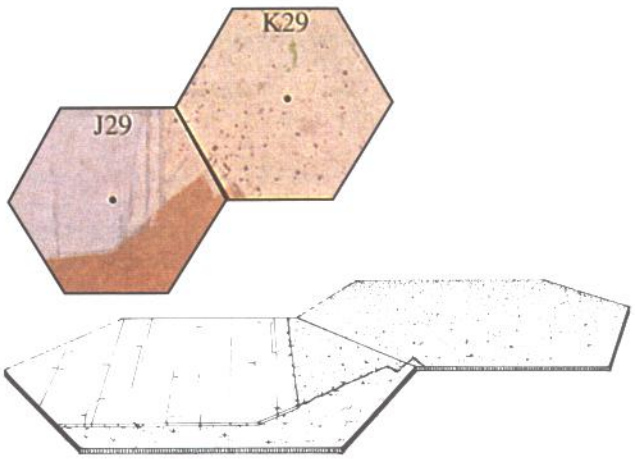
11.0 EXCAVATION DITCH

11.1 An Excavation Ditch hex is represented on the *BRT* map by a light-color interior bordered by two-toned brown contour lines (with the darker contour lines on the outside) (EX: hex H10). Excavation Ditches are treated as shellholes (B2.) except that a vehicle entering or changing VCA in an Excavation Ditch is subject to a Bog Check with a +3 DRM.

12. GULLIES

12.1 There are five gullies on the *BRT* map. Vehicles may not enter the narrower two running from A62 to D60 and from D11 to T7. Vehicles may gain Crest status in the three wider gullies running from C55 to D54, D52 to G54, and I10 to M20 as if they were Wadis per F5.42-5.426. Vehicles exiting such a gully via a non-depression hexside are subject to a Bog check IN the gully with a +3 DRM.

12.2 *TRENCHES:* Trenches are considered to "connect" (as per B30.8) to all ADJACENT gully Locations. Infantry entering such a gully Location need not pay an extra MF to leave the trench in that Location. Infantry leaving such a gully Location need not pay an extra MF to enter a "connecting" trench if the Infantry and Trench counter belong to the same side's OB and/or the unit's side Controls the trench Location.



13.0 AIRFIELD [5]

13.1 The Airfield on Betio has two types of runways (B7). All dark gray runway hexes (EX: hex J29) are paved; all light gray runway hexes (EX: hex K29) are taxiways. Predominantly open ground hexes (B.1) with a significant amount of runway terrain (EX: L39, M40, H51) are nevertheless considered Airfield hexes, although road movement in such hexes is treated normally. Units may entrench in a taxiway hex with a +2 DRM. Direct Fire attacks that incur Wall TEM do not receive the -1 DRM (B7.3). Units on/adjacent to an Airfield hex need not take a Movement DR (E1.531).

14. OFF-MAP TERRAIN

14.1 The road that exits off-map at A63 is considered for the purposes of A2.51 to extend beyond that map edge in hexes of coordinate 63. All off-map hexes bordering the hexes on/between A59-E64 and extending from them along the NW-SE axis are considered to be open ground, Sand (3.) Hinterland hexes. All other off-map terrain is Ocean. On the other hand, all on-map terrain that is not in play in a given scenario remains in effect for "offboard" movement and entry purposes during that scenario.

15.0 BLOOD REEF TARAWA CAMPAIGN GAMES

15.1 *INTRODUCTION: Blood Reef: Tarawa* Campaign Games offer two or more players a series of interrelated scenarios covering the hard fought assault of a portion of Betio Island in the Tarawa Atoll. Using this system, a variable number of scenarios are played simulating the critical moments on specific invasion beaches.

15.11 *BETWEEN SCENARIOS:* Between Campaign Game (CG) scenarios, players make use of a special CG phase called the Refit Phase (RePh), wherein each side takes stock of what has happened and prepares for further combat in the next CG scenario.

15.12 *TEAM PLAY:* The three CG herein (15.51-.53) are easily adapted—indeed, recommended—for team play, with each player commanding either certain unit

types (EX: one player commands all the armor and Guns, another the non-Gun-crew Infantry, of one side), or a mapsheet sector (EX: one player commands the forces on/west-of hexes numbered 31). If desired, an overall commander may determine which forces his subordinate players will receive, assigning each to the one who requires it most.

15.13 *CG ROSTERS & PURCHASE RECORDS:* The enclosed printed copies of the *BRT* "Beach Defense Record," "Landing Schedule Record," and "Miscellaneous Status Record" should be photocopied and used by CG players to record important CG information. (Permission to photocopy these and the reduced-size map is granted.)

15.2 *DEFINITIONS & ABBREVIATIONS:* The following is a glossary that explains abbreviations and important terms used frequently in the *BRT* Campaign Game system.

Assault Wave: One or two Formations from the same BLT that enter in the same Beach Entry Area on the same Game Turn.

Beach Defense Record: A chart to record Japanese purchases, reduced strength units, leaders, etc.

Beach Definitions:

Green Beach Water (entry): M1-Z7

Green Beach Land (Japanese set up area): U10-E4

Red Beach One Water (entry): Z12-Z21

Red Beach One Land (Japanese set up area): V10-N21

Red Beach Two Water (entry): Z22-Z33

Red Beach Two Land (Japanese set up area): O22-T33

Red Beach Three Water (entry): Z34-Z50

Red Beach Three Land (Japanese set up area):[6] U34-D63

Black Beach One Land (Japanese set up area): D4-E32

Black Beach Two Land (Japanese set up area): E33-A58

Beach Setup Area: All Hinterland hexes ≤ 3 hexes from any beach hex of a named beach, and those named beach hexes, and, for placement of tetrahedrons, Ocean hexes extending out from the beach..

BLT (Battalion Landing Team): All the integral and attached Formations of a Marine battalion.

CAPP (Covered Arc Purchase Points): Used by the Japanese for purchasing pillboxes in RePh step 15.6142. The CAPP allotment for a beach may be followed by an exponent (termed the CAPP Exponent) that represents the number of squad-equivalent stacking capacities the Japanese player may add to one or more pillboxes in the Setup Area for that beach (15.6142).

CG: Campaign Game. The three CG are listed in 15.51-.53.

CG Date: Each CG Date consists of the calendar date plus an AM, PM, or Night reference (e.g., "22 AM"). One CG scenario may be played per CG Date--hence up to three CG scenarios may be played per calendar day: one in the morning (AM), one in the afternoon/early-evening (PM), and one at night (NT).

CG End: Completion of RePh step 15.6032 after the November 22 PM CG Date, or upon attainment of the CG Victory Conditions by either side.

Eliminated: Units/Equipment "Eliminated" in a CG are removed from that side's OB.

Enterable: A hex/Location that the unit in question could enter (disregarding its occupation by a Fortification/enemy-unit) during a hypothetical MPh/APh. If defined in relation to a Setup/Entry Area (or to a "path" of hexes drawn to/from/between such), the hex/Location must be Enterable along that "path." A terrain Blaze is not Enterable.

Entry Area: Each colored map-edge hex (red or green) as designated by the corresponding beach name.

Equipment: Any SW/Gun/Vehicle that can be part of a side's OB. Any counter that can be Portaged/driven/Manhandled about on the map.

FLL (Front Line Location): Each Location that belongs to a Perimeter marked in RePh step 15.607. Each Marine FLL is part of a "loop" of other FLL. Any hex that is part of the Marine Perimeter is a Marine FLL. Any non-Ocean hex adjacent to, but not within, the Marine Perimeter is a Japanese FLL.

Formation: A sub-part of a BLT.

FPP (Fortification Purchase Points): Used to purchase Fortifications in RePh step 15.6143.

GPP (Gun Purchase Points): Used by the Japanese player to purchase Guns and SW in RePh step 15.6141.

Initial Scenario: The first scenario of a CG. A CG's Initial Scenario gives each side's setup/entry restrictions, Initial-Scenario Victory Conditions, starting OB and reinforcements, as well as the SSR applicable to that Initial Scenario or CG.

ISSR: Initial Scenario Special Rule(s).

Isolated: After Setup Areas are determined (15.6071), all Marine units outside of, and Japanese units inside of, a Marine Setup Area are Isolated (15.6072).

Landing Schedule Record: A chart used by the Marine player to record Assault Wave assignments and leaders.

Leader Determination (LD) DR: The quality of most leaders is determined by a DR on the CG 19 Leader Determination table. Make a DR on this table whenever a generic "leader" is assigned in the OB.

Map Section: One of the two *BRT* mapsheets.

OB (Order of Battle): All units, Equipment, Fortifications, and Reinforcements of a side that are eligible to participate in the next CG scenario.

Retained: All units and Equipment in a side's OB that are available for setup/entry in the next CG scenario; i.e., all Initial-Scenario OB-given/purchased units/Equipment (or all units/Equipment remaining available from the previous scenario of the CG), and all reinforcements entered since the previous (if any) scenario of the CG. In *BRT*, such a unit/Equipment is required to be set up in the Setup Area it was Retained in (RePh 15.6081); e.g., a unit ending a CG scenario in friendly Setup Area "X" must begin the next CG scenario in that same Setup Area. LVTs may be Retained off-map for entry.

Roster: A listing of the units available to a side for a CG.

Setup Area: For the Marines, each Strategic Location Controlled, plus each Location within a Perimeter "loop" of Strategic Locations that is not Controlled by the Japanese; each such non-Strategic Location hex must also be Enterable by Infantry from ≥ one Strategic Location of that Setup Area. For the Japanese, all Hinterland Locations not part of any Marine Setup Area. Friendly Setup Areas that touch/overlap are treated as a single Setup Area. For an initial Scenario, see also 15.51, .52, .53.

Strategic Location: A Strategic Location is any ground level Location of a hex with ≥ +2 non-Crest TEM, a Beach hex, a Hinterland map-edge hex, or a pier Location. In addition, at the end of a CG scenario all hexes containing a Marine hero or MMC are Strategic Locations for the Marine player. At the start of a CG all Strategic Locations are Controlled by the Japanese [EXC: in CGI, the Marines initially Control all Strategic Locations they occupy at scenario start]. Each terrain Strategic Location captured by the Marine player may be marked with a Marine Location marker (15.606).

15.3 *THE CAMPAIGN GAME SCENARIOS:* The parameters of the Initial Scenario for each CG are given in 15.51, .52, .53. Additional scenarios for that CG occur as per the *BRT* CG Scenario Chart and CG10. The length of each CG scenario is listed on the *BRT* CG Scenario Chart (15.6205). The CG continues until the specific CG Victory Conditions are fulfilled by one side or the completion of the last CG Date of that CG, whichever comes first. The "start lines" (or FLL, to use the game term) in a CG scenario are determined by Locations Controlled by both sides at the end of the last-completed CG scenario.

15.31 *CG BALANCE PROVISIONS:* Should each player wish to play the same side (A26.5) the following Balance is used:

Japanese: Japanese infantry units are considered Fanatic when in a Fortified Building, bombproof, or pillbox.

Marine: Marine infantry units are also considered Fanatic (G14.32; SSR BRT 4) when adjacent to a beach hex.

15.4 *CAMPAIGN GAME SPECIAL RULES:* The following *BRT* CG SSR below apply in all CG scenarios.

CG1 *BRT SSR:* All BRT SSR are in effect except as amended below.

CG2 *MARINE UNIT ORGANIZATION:*

CG2.1 *BATTALION LANDING TEAM (BLT):* A Marine infantry battalion and its attached units combine to form a Battalion Landing Team (BLT)(SSR CG2.2)[7]. A BLT must be assigned to a particular Entry Area during setup (or, for a reinforcement BLT, during the RePh immediately preceding the CG scenario during which

the first Formation of that BLT will enter the map). All units of a BLT must enter within its assigned Entry Area (see 15.2 Beach Definitions). Only one BLT may be assigned per Entry Area per CG Date [EXC: a Reinforcement BLT].

CG2.2 *FORMATIONS:* Each sub-unit of a BLT is called a Formation and assigned a number (EX: F1, F2, etc.). These Formations are assigned to Assault Waves (CG2.3) and are then recorded on the appropriate Landing Schedule Table. The standard Marine infantry battalion contains the following Formations: Headquarters (HQ) Company, three Rifle Companies, and a Heavy Weapons (HW) Company. The Formations of each Marine BLT available during the Tarawa campaign are set forth in the Formation Table in CG2.4. Units from one Formation may not transfer to any other Formation [EXC: Engineer Platoon, Scout Sniper Platoon, Anti-Tank Section (Division), Artillery Battery, Anti-Tank Section (Regiment), Light Tank Platoon, Medium Tank Platoon, and Seabee Platoon (see CG2.3)]

FORMATION TABLE

2nd Marine Division

	BLT #1 3rd Battalion, 2nd Marines		BLT #2 2nd Battalion, 2nd Marines
F1	HQ Company[a][l]*	F1	HQ Company[a][m]*
F2	Rifle Company[b]	F2	Rifle Company[b]
F3	Rifle Company[b]	F3	Rifle Company[b]
F4	Rifle Company[b]	F4	Rifle Company[b]
F5	HW Company[c]**	F5	HW Company[c]**
F6	Engineer Platoon[d]	F6	Engineer Platoon[d]
F7	AT Section (Division)[e]	F7	AT Section (Division)[e]
F8	Artillery Battery[f]	F8	Artillery Battery[f]
F9	AT Section (Regiment)[g]	F9	AT Section (Regiment)[g]
F10	Light Tank Platoon[h]	F10	Light Tank Platoon[h]
F11	Medium Tank Platoon[i]	F11	Medium Tank Platoon[i]
F12	Seabee Platoon[j]	F12	Seabee Platoon[j]
Special: Scout Sniper Platoon***[k]			

	BLT #3 2nd Battalion, 8th Marines		BLT #4 1st Battalion, 8th Marines
F1	HQ Company[a]*	F1	HQ Company[a]*
F2	Rifle Company[b]	F2	Rifle Company[b]
F3	Rifle Company[b]	F3	Rifle Company[b]
F4	Rifle Company[b]	F4	Rifle Company[b]
F5	HW Company[c]**	F5	HW Company[c]**
F6	Engineer Platoon[d]		
F7	AT Section (Division)[e]		
F8	Artillery Battery[f]		
F9	AT Section (Regiment)[g]		
F10	Light Tank Platoon[h]		
F11	Seabee Platoon[j]		

	BLT #5 1st Battalion, 6th Marines		BLT #6 2nd Battalion, 6th Marines
F1	HQ Company[a][l]*	F1	HQ Company[a][m]*
F2	Rifle Company[b]	F2	Rifle Company[b]
F3	Rifle Company[b]	F3	Rifle Company[b]
F4	Rifle Company[b]	F4	Rifle Company[b]
F5	HW Company[c]**	F5	HW Company[c]**
F6	Artillery Battery[f]	F6	Engineer Platoon[d]

FORMATION TABLE NOTES

* Units may be attached to any other Formation in its BLT [CG2.3].
** Each MG Platoon (along with ≤ 1 leader) of this Formation may be attached to a Rifle Company Formation in its BLT.
*** May be attached to any other Formation in *any* BLT.
[a] 4x Leader, 2x SFCP
[b] 9x 6-6-8, 6x 2-4-8, 4x Leader, 3x dmMMG, 3x dm60mm MTR
[c] 3x Leader, 3x MG Platoon [3x 2-4-8, 2-2-8 crew, 3x dmMMG, dmHMG(.50-cal.)], 4x 2-2-8 crew, 4x dm81mm MTR
[d] 8x 7-6-8, 3x Leader, 8x DC, 3x FT
[e] 3x Pathfinders (1.), 3x M3 GMC
[f] 3x 2-2-8 crew, 3x M1A1 75* ART
[g] 3x 2-2-8 crew, 3x M3A1 37LL AT (includes three Jeeps [unarmed] if it enters at the Z33 pier Location)
[h] 6x Pathfinders (1.), 6x M3A1, 2x A.L.
[i] 7x Pathfinders (1.), 7x M4A2, 3x A.L.
[j] 3x Pathfinders (1.), 3x armored Bulldozer
[k] 10-3, 3x 7-6-8, 3x DC, FT
[l] First LD DR receives a -2 DRM.
[m] First LD DR receives a -3 DRM.

CG2.3 *ASSAULT WAVES:*[8] After viewing the Japanese setup, but prior to the start of play, the Marine player must assign at least one but no more than two of the available Formations in his OB to each of the Assault Waves for the current CG Date. The Marine player may freely add (i.e., without counting as a second "Formation") to his formations as follows:

- A MG Platoon (including ≤ 1 Leader) from the HW Company may be added to any Rifle Company of the same BLT (any MG Platoon that is not added to a Rifle Formation remains a part of its original Formation).
- Units of the HQ Company may also be added to any other Formation of the same BLT [EXC: such units may be added in the First Assault Wave only if sufficient transport is available].
- The Scout Sniper Platoon may be attached to any other Formation of any BLT and may enter with that Formation or may enter by itself on any pier Location that is not adjacent to a Japanese unit.

Record each such combination on the Formation Creation Record. The entry turn for each Assault Wave is listed on the Landing Schedule Record. All Marine Personnel in Assault Wave 1 [EXC: Scout Sniper Platoon] must enter as LVT Passengers. Each LVT must be at least half (rather than 2/3) full; thereafter, such units must enter either as Waders or as Passengers on (Retained) LVT. Guns and SW entering in an Assault Wave must be dm if possible. All units in an Assault Wave must enter on an Ocean hex [EXC: the Scout Sniper Platoon, and Jeeps towing M3A1 37LL AT, may enter on a pier Location not adjacent to a Japanese unit]. Assault Waves may only enter on Marine Player Turns 1, 3, and 5 of any CG scenario. All units in a Formation, and all Formations in an Assault Wave, must enter on their designated turn of entry or they are eliminated with full CVP awarded to the Japanese player.

CG2.4 *MARINE REINFORCEMENT TYPE:* A BLT not designated as a "Reinforcement Type" is an At-Start BLT. The Marine OB will designate some BLTs as one or more of the following Reinforcement Types: "Follow-On Battalion," "Regimental Reserve," or "Divisional Reserve." None of these Reinforcement Types are available for entry until all units of the Marine player's At-Start BLT have completely entered the map [EXC: A Follow-On Battalion may be eligible for entry when all of the At-Start BLT have entered each of their formations numbered from F1-F5. However, if the Follow-On Battalion enters before any of the other Formations of those At-Start Battalions, then all Formations of the Follow-On Battalion must enter before any of the remaining At-Start BLT Formations may enter. No Regimental Reserves may enter until all Formations of all At-Start Battalions and Follow-On Battalion have fully entered.] No Divisional Reserves may enter until all Formations of all of the Regimental Reserve have fully entered. Once the above conditions have been met, a Reinforcement Type may be Committed to the Landing Schedule Table during the RePh immediately previous to the CG scenario that it is to enter.

CG3 *TARAWA NAVAL GUNFIRE:*

CG3.1 *TARAWA NAVAL OBA:* Chapter G Naval OBA rules are modified for all *BRT* scenarios as follows.[9]

CG3.11 *SHORE FIRE CONTROL PARTY:* All rules for SFCP (G14.61) apply except as herein modified. Use a German, Russian, or British 2-2-8 Infantry Crew counter to represent the U.S. SFCP. Prior to the start of any CG scenario, each SFCP must be assigned to a Naval Battery (which it may share with another SFCP) for the duration of the CG scenario (CG3.22). Each SFCP is allowed to make one Radio Contact attempt for its assigned module per Player turn, but Battery Access may be attempted only once per Player turn per module (i.e., Radio Contact is established per SFCP, Battery access per module). Once Battery Access has been attempted, any remaining SFCP assigned to that Naval Battery may attempt to gain/maintain Radio Contact. A SFCP (or its radio) eliminated during a CG scenario is automatically Retained (and repaired) for the next CG scenario,

but must enter with the first Assault Wave on the next CG scenario. See CG3.4 for Japanese Counterbattery Fire and its effect on Battery Access of NOBA. Regardless of whether Radio Contact is gained/retained, each NOBA module may fire using the principles of Direct Fire (CG3.21). Immediately after a successful radio contact DR, the Marine player must announce which type of attack he will use (i.e. Direct Fire or NOBA).

CG3.12 *SHIPBOARD OBSERVER:* At the start of each CG scenario, each NOBA module must record a Shipboard Observer (G14.68). A Shipboard Observer is only used to determine the Blast Area (G14.65) of any NOBA mission or to determine LOS to the target for Direct Fire when there is no Radio Contact.

CG3.13 *LOF:* As per CG3.12 a NOBA module of 120+mm must trace a LOF from any Ocean Map edge-hex in play along the north, south or west edge; a NOBA module of 200+mm must trace a LOF from any south or west Ocean map edge-hex in play. NOBA LOF may be traced from an edge hex that is ≤ 12 hexes from a Hinterland hex.



CG3.2 *NAVAL BATTERIES:* In CG I and II, the Marine player receives one module of 120+mm NOBA (HE, WP, and IR), and in CGIII he receives two modules of 120+mm NOBA for each CG scenario after the initial CG scenario. During any one CG Date for CGII, and two CG Dates in CGIII, the Marine player may exchange one 120+mm module for a 200+mm module (HE and IR only). The CG Date on which the 200+mm NOBA module will replace the 120+mm module must be secretly recorded prior to the start of the Initial CG scenario (but after viewing the initial Japanese setup).



CG3.21 *DIRECT FIRE:* The Marine player may declare that a Naval Battery (120+mm only) will fire a Direct Fire mission. The mechanics of Direct Fire for a Naval Battery are identical to those for any onboard Gun, except as modified herein. If a SFCP has made Radio Contact and has Battery Access it may use Direct Fire instead of an AR/SR/FFE placement. A Shipboard Observer uses Direct Fire in the same way except that no Radio Contact has been established. In both cases Battery Access must be gained in *each* Player Turn. The LOS is traced from the SFCP's location or from the Offboard Observer's recorded hex (depending on which method is being employed). Any Direct Fire which uses a SFCP receives a ROF of 2 (Intensive Fire is NA). A white Dispersed Smoke counter is placed in any non-water target hex after the resolution of any IFT result. A Naval Battery may not use Direct Fire if it has an FFE2 counter already on board [EXC: if a SFCP has radio contact], or if there is Air Support on-map.

CG3.22 *TARGET SELECTION:* A Naval Battery using Direct Fire may use Multiple ROF only to fire at that phase's original target hex or an adjacent hex.

CG3.23 *TO HIT:* In order to fire using Direct Fire, all AR/SR/FFE counters for that module are first removed. Direct Fire by a Naval Battery may use any Target Type. The Basic TH# of a Naval Battery for the various Target Types is 6 for Infantry, 7 for Vehicular, and 8 for Area, regardless of range. No Basic (C4) or Firer-based (C5) To Hit DRM apply, although all Target based (C6) To Hit DRM apply normally (acquisition is lost when Battery Access is lost). When using a SFCP for Direct Fire, only hindrances from the SFCP to the target apply. Otherwise, hindrances from the Shipboard Observer are applicable. Direct Fire may use WP (for 120mm only) and HE. To use WP, however, the Marine player must make another Battery Access draw. A subsequent black chit allows the use of WP, while a red chit allows only the use of HE for that mission.

CG3.3 *NAVAL FIRE & AIR SUPPORT ARRIVAL:* All Naval SR/FFE/Acquisitions must be immediately removed from the map following a successful Air Support dr, with all Battery Access lost. Battery Access may not be attempted while any FB remain on board.

CG3.4 *JAPANESE COUNTERBATTERY FIRE:* The Japanese player receives Counterbattery Fire whenever one or more of the following Guns starts a scenario on board, fully manned, and functioning: 120L AA, 140L ART, or 200L (8-in. Gun Turret). Depending on the caliber of the Gun, Counterbattery fire may remove one Black card from, and/or add one Red card to, the Marine NOBA Draw Pile (G14.63).

Marine Draw Pile		
Weapon	**Black**	**Red**
120L	-1	
140L		+1
200L (8-in. Gun Turret)	-1	+1

Counterbattery Fire results are cumulative for each eligible Gun on Board. In CGIII, since more than one Marine NOBA module exists, the Marine player must match the Counterbattery Fire of each eligible Japanese Gun to his Naval Batteries accordingly (see example below). A Gun used for Counterbattery Fire may fire without affecting Counterbattery Fire results. The effects of Counterbattery Fire last throughout the scenario until the Gun is Captured or Eliminated.

EX. The Marine player has one module of 120+mm and one 200+mm NOBA available. The Japanese player has two 120L Guns and one 8" Gun remaining. The Marine player chooses to apply all Counterbattery fire effects to the 120+mm module (which would give it a Battery Access draw pile of 2 black and 3 red cards) and leave the 200+mm module with its full draw pile of 5 black and 2 red chits.

CG4 *TARAWA NAVAL BOMBARDMENTS:* The ISSR of a CG may provide the Marine player with one or more Naval Bombardments. The Naval Bombardment rules (G14.7-.72; see also F7.4) apply as modified herein. In addition to stating the number of Bombardments, the ISSR will state the hex radius for each Bombardment. After viewing the Japanese setup, the Marine player may place one AR counter on any land hex in play for each Tarawa Naval Bombardment module in his OB. After the placement of all such AR counters, make an accuracy dr prior to placing an FFE:2 to designate the center of the bombardment's blast radius. The bombardment is accurate on an Original dr ≤ 2. If not accurate, make a C1.31 Error DR, with halving being the only modification to the Extent of Error dr. Naval Bombardment effects apply to all hexes within the Blast Area [EXC: G14.73 second attacks are NA]. After resolving all Tarawa Naval Bombardment MC, place a Smoke counter in each land hex affected by the Bombardment (which counters are then flipped to their Dispersed side at the start of the immediately following Marine PFPh).

CG4a *BREACHING SEAWALLS:* A seawall has a Morale of 10 and is breached (G13.624) if it fails its NMC. Each hex in the Blast Area and formed by ≥ 1 seawall hexside takes *one* seawall NMC. If more than one hexside could be affected, use Random Selection to determine which hexside(s) are breached.

CG5 *MARINE CLOAKING:* The Marine player has the option of keeping in a Cloaking box each of his SMC/SW [EXC: Pathfinders] which enter from offboard into an Ocean location by secretly recording one accompanying MMC (this cloaking is in addition to that granted by G14.23).[10] Cloaking is lost for these pieces upon entering a land Location, or if unpossessed, or if in a different Location than its original MMC, or if a SW is fired/assembled or leadership used in any way. A Cloaked Leader is not required to take a MC unless it will use its leadership DRM to assist any other unit in the same Location; if a leader chooses not to take its own MC, it suffers Casualty Reduction if its accompanying MMC fails the MC. All Infantry MMC may enter the map from an Ocean hex under a "?". This form of concealment is not lost in a water hex due to movement but is lost normally otherwise. Attacks against cloaked/concealed Marine units in the Ocean are not affected by Area Fire for being concealed.

CG6 *AIR SUPPORT:* The Marines receive Random Air Support (E7.2) on a dr ≤ 2 on each turn of a daytime CG scenario [EXC: Initial Scenario of CGI] provided no Air Support is presently on board. Air Support takes the form of '44 FB with bombs. All AR/SR/FFE on board are immediately removed from the map following a successful Air Support dr.[11] Once Air Support arrives, NOBA may not be used by the Marines until all aircraft are eliminated, Recalled, or voluntarily exited. FB may voluntarily exit at the end of any friendly DFPh as if Recalled. The Marine player may not refuse Air Support and must make an Air Support dr during every eligible RPh.9 A +2 DRM (cumulative with all other DRM) applies to each Sighting TC.

CG7 *JAPANESE RESERVES AND REINFORCEMENTS:*

CG7.1 *RESERVE POOL:*[12] Japanese counters may be designated by CG setup restrictions or ISSR as part of, or subsequently assigned by the Japanese player to, the Reserve Pool. All such counters are held off-map until they either enter the game as reinforcements or are added to the Japanese player's Retained counters during the RePh. If a rule designates a specific number or percentage of counters from the Reserve Pool to enter/setup, each MMC/SMC/SW/vehicle is considered a separate counter [EXC: Armor Leader] and all SW must enter with an Infantry unit. During the setup sequence for each AM and PM CG Date after 20AM, the Japanese player may set up on board ≤ 20% (FRU) of the remaining Reserve Pool counters [EXC: during the last CG scenario of each CG the Japanese player may setup all of his remaining Reserve Pool counters on board]; during a Night CG scenario (see CG10), the Japanese player must set up on board ≥ 30% (FRU) of the remaining MMC in the Reserve Pool. A Reserve Pool counter must set up ≥ 3 hexes from every Marine FLL; if unable to do so, it is returned to the Reserve

Pool and may enter later in the scenario as the result of a successful Reinforcement DR (CG7.2). No Night CG scenario is allowed if the Japanese player cannot set up all of his Reserve Pool reinforcements ≥ 3 hexes from any Marine FLL. In addition to receiving reinforcements from the Reserve Pool as per CG7.2, after the Initial CG Scenario the Japanese player may make a Replenishment DR on the Reserve Pool Replenishment Chart to add more units to his Reserve Pool. The Replenishment DR is made on Turns 1 and 5 of each CG scenario during the Rally Phase of the Japanese Player Turn.

Reserve Pool Replenishment Chart

DR	Reserve Pool Units
2	3x 448, 2x Leader
3	2x 448, 2x Leader
4	3x 447, 2x Leader
5	3x 447, 1x Leader
6	3x 347
7	3x 347, 1x Leader
8	3x 347
9	2x 447, 1x Leader
10	3x 448, 1x Leader
11	2x 448, 1x Leader
12	2x 448, 1x Leader

CG7.2 *REINFORCEMENTS:* The Japanese player may make a Reinforcement dr during the RPh of each Japanese Player Turn after Turn 1 to determine if reinforcements are available to enter from the Reserve Pool. Japanese reinforcements may enter from any friendly controlled land hex on the east map edge (south/east map edge for CGIII) following a dr ≤ the current turn number. In CG I the Japanese player may enter a number of counters ≤ a subsequent dr. In CG II & III, the Japanese player may enter a number of counters ≤ a subsequent DR. Reinforcements not entered are returned to the Reserve Pool at the end of the Player Turn.





CG8 *SNIPERS:* Each side may use two Sniper counters during each CG scenario. Each Sniper counter must still be set up initially as per the first two sentences of A14.2, but with ≥ 15 hexes between them (or as far apart as possible if they cannot set up ≥ 15 hexes apart); when a Sniper attack can occur, make a dr to randomly determine which one actually makes an attack (assign numbers so that each has an equal chance). The SAN is never altered by the presence of > one friendly Sniper in play simultaneously. Any result (e.g., Pin) affecting a Sniper counter affects all friendly Snipers simultaneously. See RePh 15.6122. If a player wishes to reposition his Sniper counter by choosing not to activate his Sniper on a successful SAN dr, he may reposition either or both Sniper counters as per A14.2. Neither player's SAN may drop below 2 during the course of any CG scenario.

CG9 *BANZAI:* The Japanese player may not declare a multi-Location Banzai Charge (G1.5) [EXC: CG10].



CG10 *NIGHT BANZAI ATTACK:*[13] During RePh step 15.616 after any PM scenario before November 22, the Japanese player secretly records whether he will attempt a Night Banzai Attack. The Marine player then sets up for the next CG scenario and then the Japanese player reveals if he is attempting a Night Banzai Attack (15.6203). If so, and if he makes a Final dr ≤ 1, a Night CG scenario occurs. Otherwise, the Japanese player sets up normally for the next AM scenario.

If a Night CG scenario occurs, CG7 is suspended for the duration of that scenario. The initial NVR for any Night CG Date is 3; the Japanese are the Scenario Attacker (but may not use Cloaking) and the Marines are the Scenario Defender [EXC: E1.2 is NA. Instead, the Marine player may now freely conceal all of his units]. The Japanese player must then designate ≥ 30% of his Reserve Pool MMC, plus ≤ 25% of his retained on-map MMC, and ≥ 1 Leader as elements of the Night Banzai Charge. Any available SMC/SW, either on-map or in Reserve, may join. All such units must set up ≥ 3 hexes from any Marine FLL, and in one or more "chains" of contiguous hexes that contain ≥ 1 MMC per hex and with each such stack adjacent to ≥ one other such stack; each chain must contain at least one leader. Once set up, all units of the Night Banzai Charge are marked with a Banzai counter and may not undertake any action until the MPh of the Japanese Player Turn of Turn 1; Retained units not participating in the Night Banzai Charge are not so restricted. At the start of the MPh of the Japanese Player Turn of Turn 1, all units of the Night Banzai Charge must immediately conduct a single (i.e., all "chains" moving simultaneously) Banzai Charge (G1.5). The Japanese player selects only one Marine unit as the "target" (A25.23) for the entire initial Banzai Charge but that unit can be anywhere on the map regardless of range or LOS. In each succeeding Japanese MPh (and APh) each unit of the Night Banzai Charge that has neither become a broken HS nor been in an enemy-occupied hex must Banzai Charge again in the same manner, regardless of normal MF, LOS, and leader requirements; however, each such unit/stack/chain may now make its own Banzai Charge. Units "charge" during the APh by moving in the required direction (A25.231). Until it has become a broken HS or has entered an enemy-occupied hex, each unit of the Night Banzai Charge [EXC: any T-H Hero created from a unit participating in the Night Banzai Charge] is considered to be part of a Human Wave (A25.23) in all phases, during which time Range Counters (A25.2321) are not removed and it is subject to FFNAM (and FFMO if appropriate); may conduct no RPh/PFPh activity; may not participate in a multi-Location FG; uses Area Fire for Defensive First/Final Fire (cumulative with any other applications); and may not Interdict. Units conducting a Banzai Charge do not incur the additional MF cost for entering Concealment Terrain at night (E1.51). Instead, make a DR each time a MMC enters a Concealment Terrain Location in the MPh, with an Original 12 DR considered failure of an Attack Break (G1.12) MC.

CG11 *CONCEALMENT & HIP:* Each Japanese/Korean Infantry unit (and its possessed equipment) setting up in Concealment Terrain may set up concealed, regardless of enemy LOS. Each Japanese vehicle may begin concealed if it is set up in Concealment Terrain ≥ six hexes from the nearest Marine Set-Up Area Location. Such "?" need not be purchased; i.e., each is placed freely, and before the Marine player views the setup. See SSRs BRT1 for Fortifications and CG13 and BRT5 for Guns. Otherwise, A12.2 and A12.34 apply in the normal manner. In addition to the normal HIP capabilities of G1.631, the Japanese player may use FPP to purchase HIP squad-equivalents for an additional 5% (10% during a Night CG scenario)(FRU) of the squad-equivalents (including Korean labor units) available for on-map set up but may not use HIP in a FLL.



CG12 *KOREAN LABOR UNITS:* The Korean labor units stationed on Betio are represented by Chinese 3-3-6 counters. Neither G1. nor G18. apply. Korean labor units treat Japanese SW as captured (A21.11-.12), but Japanese Leaders do not have their leadership reduced for directing these Allied Troops which are, however, treated as part of the Japanese OB for purposes of determining the number of MMC squad-equivalents that may use HIP (G1.631 and SSR CG11). Korean labor units are always Conscripts and become Fanatic on a Heat of Battle Final DR ≤ 8 and Disrupt on a Final DR ≥ 9, and have an ELR of 3.



CG13 *GUNS (See also SSR BRT5):* Each AA Gun, Gun in a pillbox, or Gun ≥ 76mm must set up in the same Location from CG scenario to CG scenario. Every other non-vehicular Gun that ended the last CG scenario on-map must be set up within three hexes of the Location in which it ended that scenario [EXC: 81mm MTR; if at the start of setup (RePh step 15.6202) it is hooked up to a Mobile vehicle], even if it will be set up (un)hooked. Any Gun that is eligible to setup in a different location than where it ended the preceding CG scenario may set up HIP if otherwise eligible to do so. Each Gun in a Setup Area that contains Personnel may be set up (un)hooked/(un)limbered/(non-)dm unless otherwise prohibited. The U.S. M1A1 75 ART Gun may be dm as if it were an 81mm MTR, except it may be assembled/dismantled only in the PFPh.[14] An M3A1 37LL AT Gun may be manhandled into an Ocean hex with a +2 DRM and is not eliminated if unpossessed but is eliminated on an Original Manhandling DR of 12 while entering or exiting an Ocean Location.[15] An M3A1 37LL AT Gun may enter loaded on a LVT as if on a LVT4 (U.S. Vehicle Note 51), but unloads by being pushed into the LVT's own location by Passengers of the LVT (with a +2 DRM to the Manhandling DR), and (during CGII & III) may enter (towed by an unarmed jeep at the Marine player's option) at Z33 on the pier if pier Locations Z33-U33 are Controlled by the Marine player.

CG14 *SELF RALLY:* Each side may attempt to Self Rally ≤ two (not just one) non-Disrupted broken MMC, provided (as per A18.11) both attempts are carried out before other friendly MMC Rally attempts.

CG15 *PILLBOX CONTROL:* Provided there are no armed enemy ground units within the pillbox, pillboxes are Controlled by the side Controlling the non-pillbox Location.

CG16 *OVER THE WALL TC:* During the initial Scenario of CGII and CGIII, each Good Order Marine Infantry MMC must pass a 4TC to cross a seawall (10.)

from a Beach hex to a Hinterland hex, failure of which causes the unit to be pinned in its current Beach hex. During the MPh of these CG, a Marine MMC may move from one Beach hex to another only if using Assault Movement [EXC: if moving with a leader].[16]

The following DRM apply to the 4TC:

-1 if stacked with a Hero
-2 if crossing breached seawall hexside
+x Leadership modifier of best Good Order Leader in the same hex and currently capable of moving.

CG17 *ELR:* All Marines have ELR of 5. All Japanese 4-4-8s/2-3-8s have ELR of 5. All other Japanese non-crew Infantry have ELR of 4. Korean Labor units have ELR of 3.

CG18 *BASIC CG SCENARIO PREPARATION SEQUENCE:* The following sequence is followed in preparation for any CG Scenario. This sequence is performed after steps 15.601–.6139. Refer to the specifics of RePh steps 15.614–.6205. See 15.6205 for setup/move order.

CG18.1 *PRE-SETUP SEQUENCE*

CG18.11. *LEADER DETERMINATION:* Both players roll for all undetermined Leaders on the Leader Determination table (SSR CG19). Record the resulting Leaders on the Beach Defense Record (Japanese) or Landing Schedule Record (Marine).

CG18.12 *PURCHASE GUNS AND FORTIFICATIONS:* Purchase Guns and Fortifications (including pillboxes) for each Beach/Setup area (15.614).

CG18.13 *ASSAULT WAVE ASSIGNMENT:* The Marine player assigns Formations to Assault Waves (SSR CG2.3).

CG18.2 *UNIT SETUP*

CG18.21 *NIGHT BANZAI DETERMINATION:* If applicable, the Japanese player decides if a Night Banzai Attack will be attempted per SSR CG10.

CG18.22 *FIRST PLAYER SETUP:* The side setting up first (Japanese in all Initial CG Scenarios and PM scenarios; Marines in all Night and AM scenarios [EXC: Initial CG Scenario]) places his Isolated and non-Isolated units per 15.620–.205.

CG18.23 *NIGHT BANZAI ATTEMPT RESOLUTION:* If applicable, the Japanese player resolves any attempt to conduct a Night Banzai Attack (SSR CG10).

CG18.24 *SECOND PLAYER SETUP:* The side setting up second (Marines in all Initial CG Scenarios and PM scenarios; Japanese in all Night and AM scenarios [EXC: Initial CG Scenario]) places his Isolated and non-Isolated units per 15.620–.205.

CG18.3 *BOMBARDMENT RESOLUTION:* The Marine player declares and resolves any bombardments. Play then begins.

CG19 *LEADER DETERMINATION:* For each LD DR required, make a DR on the following table. All applicable DRM are listed in the applicable CG ISSR.

LEADER DETERMINATION TABLE

	Japanese		Marine	
DR	Inf	Armor	Inf	Armor
≤ 2	10-2	9-2	10-3	10-2
3	10-1	9-1	10-2	9-2
4	10-0	8-1	9-2	9-1
5	10-0	—	9-1	8-1
6	9-1	—	9-1	—
7	9-1	—	8-1	—
8	9-0	—	8-0	—
9	9-0	—	8-0	—
10	8-0	—	7-0	—
11	8-0	—	7-0	—
12	8+1	†	6+1	—

† All Japanese AFV have Inexperienced Crews (D3.45).

15.5 *INITIAL SCENARIO:* First select one of the CG listed below (CG I is the shortest with 4-5 CG dates). Included there is the information needed to play that CG's Initial Scenario. For the Initial Scenario, players begin with RePh step 15.614 ("Purchase Fortifications and Guns") and complete RePh steps 15.620-.6204 after first determining leaders on the SSR CG 19 Leader Determination table.

In the Initial Scenario of each *BRT* CG the Japanese sets up first and the Marines move first. Furthermore, the Marine player is assumed to be the Scenario Attacker and the Japanese player is the Scenario Defender in all AM and PM CG scenarios. During any Night CG scenario (CG10) the Japanese player is the Scenario Attacker and the Marine player is the Scenario Defender.

15.51 *BRT Campaign Game I:* **A HELL OF A WAY TO DIE**

CG Dates: 21 AM - 22 PM

TARAWA, BETIO ATOLL, 21 November 1943: *Monday morning brought the beginning of the second day of battle for the coral atoll of Betio. Five battalions of Marines had tried to dislodge a stubborn Japanese force from the tiny island without success. The Japanese Special Naval Landing Force, or* rikusentai, *still held 90% of the atoll. The situation looked grim for Colonel David Shoup, the Marine landing force commander on shore. Two battalions had been torn to shreds crossing 2,000 yards of coral reef as they tried in vain to reach the shore. Communications were spotty at best, and no real control of the forces could be achieved. Similarly hampered by poor communications and coordination, the* rikusentai *had been unable to organize an effective counter-attack. The* rikusentai *had missed a prime opportunity to push the invaders back into the sea in the now receding darkness. Had they done so, the situation for Colonel Shoup would have been even worse. There were Marines still ashore, however, and there was only one thing to do—attack. Colonel Shoup gave the order. As the assault started, 1st Battalion, 8th Marine Regiment began wading over the terrible reef of death. The still-strong defenders wasted no time in ripping apart the Marines wading toward them. After spending 18 hours in landing craft, the 1/8 landed into the teeth of the defense due to miscommunication. Marines on the island watched in horror as the proud battalion lost more and more men in the water. Something had to be done. In small groups, men ashore braved the fire to try to stop the slaughter.*

PLAYING AREA: Only hexes numbered ≤ 32 are in play.

CG I VICTORY CONDITIONS: The Marines win immediately if there are no unbroken Japanese/Korean squads on the map, provided the Japanese amass ≤ 204 CVP.

INITIAL-SCENARIO VICTORY CONDITIONS: The Marines win at scenario end if there are no Japanese units on/north of hexrow P22-P32, and/or there are no Japanese units on/adjacent to beach hexes N21-V11, and/or there are no Japanese units on/adjacent to beach hexes V10-D4.

INITIAL-SCENARIO SETUP SEQUENCE: The Japanese player sets up first. After the Marine player sets up, the Japanese player makes a dr to determine which side moves first. On a dr of 1-3 the Marines move first; otherwise, the Japanese moves first.

JAPANESE OB
(see SSR CG17 for ELR)

Elements of Betio Island Command set up in Hinterland hexes ≥ 3 hexes from any Beach hex:
75 FPP

3rd Special Base Force set up in Hinterland hexes not in the Marine Setup Area: {SAN: 4}
4-4-8 x8 4-4-7 x20 3-4-7 x14 3-3-6 x6 Leader x9
50mm Mtr x6 9-2 A.L. x1 Type 95 Ha-Go x4

Elements of 3rd Special Base Force set up in Hinterland hexes ≤ 4 hexes from hexes of Red Beach One and/or Red Beach Two. Eligible fortifications may also set up in Beach/Ocean hexes with a coordinate ≥ 11:
27^4 CAPP 46 GPP 60 FPP

Elements of 111th Construction Battalion set up in Hinterland hexes ≤ 4 hexes from any hex of Green Beach:
31^3 CAPP 43 GPP 50 FPP

Elements of 2nd Company, 7th Special Naval Landing Force set up in the Reserve Pool:
4-4-8 x10 MMG x6 2-2-8 x4 LMG x6 Leader x6
50mm Mtr x3

MARINE OB [ELR: 5]

Elements of 3rd Battalion, 2nd Marines [ELR: 5] set up in beach hexes on/between Q14–V11 and/or in Hinterland hexes numbered ≤ 13 on/north of hexrow Q: {SAN: 4}

7-6-8 x 4 6-6-8 x 14 2-2-8 SFCP x1
10-2 x 1 9-2 x 1 9-1 x 2 8-0 x 2
MMG x 2 DC x 4
M4A2 x 2 LVT 2(m) x3 9-2 AL

2nd Battalion, 2nd Marines set up on/north of hexrow R22-R31:

7-6-8 x5 6-6-8 x12
10-3 x1 9-2 x1 9-1 x2 8-1 x1 8-0 x2
MMG x3 60mm MTR x2 DC x3 FT x2
LVT 2 (m) x3

Elements of the 10th Marines set up in Hinterland hexes numbered ≤ 13 on/north of hexrow Q *or* on/north of hexrow R22-R31:

M1A1 75mm ART x 2 2-2-8 x 3

Remnants of 1st Battalion 8th Marines enter along the north edge on/after Turn 3.

6-6-8 x 6 2-4-8 x 3 2-2-8 SFCP
4x Leader
dm .50cal x1 dmMMG x 2

Regimental Reserve: enter on/after the time indicated:

1st Battalion, 6th Marines: enter on Pneumatic Boats [E5.12] or wading on/after Turn 3 of the Nov 21 PM CG Date at Red Beach One, Red Beach Two *or* Green Beach.

Company A 2nd Tank Battalion and attachments: enter on/after Turn 1 of the November 22 AM CG Date at Red Beach One *or* Red Beach Two *or* Green Beach.

M3A1 x6 AL DR x2 0-0-9 x6

2nd Company 18th Marines enter on/after Turn 1 of the November 22 AM CG at Red Beach One *or* Red Beach Two *or* Green Beach.

7-6-8 x4 Leader x2 (-1 DRM for each)
DC x 3 FT x 2
Armored Bulldozers x3

AT section enter on/after Turn 1 of the 22AM CG Date at Red Beach One *or* Red Beach Two *or* Green Beach.

M3 GMC 75 x3 0-0-9 x 3

INITIAL SCENARIO SPECIAL RULES

1. EC are Moist, with no wind at start. See BRT SSR.

2. The Marine player receives one 120+mm NOBA Module. Only 1st Battalion, 6th Marines need to enter in Assault Waves (CG2.3).

3. The Japanese player may apply a -2 drm to the LD DR for his first two leaders.

4. The Marines receive Random Air support (E7.2, *not* per SSR CG6) in the form of '44 FB with bombs.

5. Place a Burnt-out Wreck counter in the hexes V12, W11, R17, Q19, O20, S24, and T28.

6. Seawall hexside U10-T10 begins the game breached (SSR CG4a).

AFTERMATH: *On Red Beach Two small groups of men started, one at a time, to pick off machine-gun emplacements and heavy guns. Lieutenant Deane Hawkins led charge after charge. His tactic was to creep up to a pillbox, fire his weapon into it, and then throw in grenades. Hawkins set the example of "cool disdain" that gave heart to the Marines. Hawkins could not survive the Japanese maelstrom and after destroying four pillboxes he was mortally wounded. His actions capped a spectacularly heroic 24 hours for his Scout Sniper Platoon. Major Mike Ryan was the main contributor to winning the battle at the "beak." He took over all the forces in his area, which included elements of nearly every battalion ashore. He organized an attack led by two Shermans and preceded by Naval gunfire directed by Lt. Thomas Green, USN. Due to spotty communications, airstrikes interfered with the artillery barrage. Major Ryan sent runners to stop the Fighter-bombers and then pressed south. After an intense bunker to bunker fight Green Beach was clear. Major Ryan wasted no time getting the word to Colonel Shoup. Because of Ryan's actions, 1st Battalion 6th Marines landed unmolested in the late evening, the first Battalion to land with full combat strength.*

15.52 *BRT Campaign Game II:* A SPECIAL VALOR

CG Dates: 20 AM - 22 PM

TARAWA, BETIO ATOLL, 20 November 1943: *The intense problems inherent to an amphibious assault on a hostile shore could not have been shown more vividly than in the area of Red Beaches One and Two. Physically separated from Red Beach Three by the central pier, this area also featured a cove which enabled the Japanese to subject the invading force to a murderous crossfire. The beaches were also well-protected by some serendipitous planning; heavy anti-aircraft guns had been placed on the "chin" of the Bird's Beak to cover likely air approaches to the runway and to provide long range fire towards the other islands in the Tarawa Atoll. Although the Japanese gunners set the fuses on the AA rounds too high, gaining little effect on their planned targets, the high explosive rounds proved perfect for hitting the LCVPs as they dropped their bow ramps at the reef edges. As the Marines jumped into the water, they were immediately faced with the unenviable choice of drowning in a hole or standing in less than a foot of water in the face of intense fire coming from the AA guns, heavy weapons, or from machine guns some brave defenders had set up in a rusting hulk behind them and on positions under the long central pier. The way to the beaches was slow-going.*

PLAYING AREA: Only hexes ≤ 35 are in play.

CG II VICTORY CONDITIONS: The Marines win immediately upon Controlling all Fortified Building Locations, pillboxes, Bombproofs, and Command Bunkers provided the Japanese amass ≤ 449 CVP.

INITIAL-SCENARIO VICTORY CONDITIONS: The Marines win at game end by amassing more Victory Points than the Japanese. CVP are awarded normally and each pillbox Eliminated or Captured by the Marines is worth to them a number of VP equal to the pillbox's stacking capacity.

JAPANESE OB
(see SSR CG17 for ELR)

3rd Special Base Force set up as indicated and as per applicable Reserve Pool provisions: {SAN: 4}

Elements of Island Command set up in Hinterland hexes ≥ 3 hexes from any Beach hex or in the Reserve Pool [EXC: FPP set up anywhere *on-map*]:

4-4-8 x4 3-4-7 x4 3-3-6 x12
Leader x5 (see ISSR 5)
Type 95 Ha-GO x4 A.L. x2 (see ISSR 5)
150 FPP

Elements of 3rd Special Base Force set up in Hinterland hexes ≤ 3 hexes from any hex of a specified beach; eligible fortifications may also set up in Beach/Ocean hexes with a hex coordinate of ≥ 11:

Red Beach One, Red Beach Two, and/or Green Beach:
4-4-7 x30 Leader x5 LMG x10 MMG x8
Red Beach One:
27^4 CAPP 52 GPP 50 FPP
Red Beach Two:
27^6 CAPP 52 GPP 75 FPP

111th Construction Battalion set up in Hinterland hexes ≤ 3 hexes from any hex of Green Beach (see ISSR 3); eligible Fortifications may also set up in any Beach hex or Ocean hex with a hex coordinate of ≤ 10:

3-4-7 x22 Leader x4
LMG x4 50mm MTR x6
31^3 CAPP 46 GPP 50 FPP

1st and 2nd Companies, 7th Special Naval Landing Force set up in Reserve Pool and/or adjacent to any hex of a specified beach (see ISSR3) [EXC: Bombproofs may

set up two hexes away from any Black Beach hex. Other units assigned to this beach may set up in such a Bombproof]:

Black Beach One and/or Black Beach Two:

4-4-8 x22 Leader x4

LMG x7 MMG x7 50mm MTR x6

Black Beach One:	Black Beach Two:
15GPP	12 GPP
31^5 CAPP	31^5 CAPP
20 FPP	20 FPP

RESERVE POOL enter on any friendly Controlled east-edge land hex and/or set up on/adjacent-to Black Beach hexes and ≥ 3 hexes from all Marine units.

4-4-8 x12 4-4-7 x8 3-3-6 (Korean Labor) x8

Leader x12 (see ISSR 5)

MMG x6 LMG x6 50mm MTR x4

Type 95 HA-GO x8

MARINE OB [ELR: 5]

Elements of Regimental Landing Team Two, Second Marine Division [ELR: 5] enter at Red Beach One and Red Beach Two, one BLT per Entry Area: {SAN: 5}

2nd Battalion, 2nd Marines

3rd Battalion, 2nd Marines

20x LVT1(m)

20x LVT(A)2

Follow-on Battalion:

1st Battalion, 8th Marines enter at any *one* Red Beach Entry Area.

Regimental Reserve:

1st Battalion, 6th Marines enter at Red Beach One *or* Red Beach Two *or* Green Beach (may enter on Pneumatic Boats [E5.12]).

INITIAL-SCENARIO SPECIAL RULES

1. EC are Moist, with no wind at start. See BRT SSR.

2. The Marine player receives four Naval Bombardments (SSR CG4). Two Bombardments have a two hex radius and two Bombardments have a three hex radius.

3. All pillboxes/Bombproofs/Command-Bunkers in the Setup Areas of the 111th Construction Battalion and the 1st and 2nd Companies, 7th Special Naval Landing Force, must be manned to capacity if possible. Any units of these formations not set up in a pillbox/Bombproof/Command-Bunker [EXC: a Gun and its manning crew] must set up in the Reserve Pool. No unit of the 7th SNLF which sets up onboard/HIP may leave its initial Location until Japanese Turn 3.

4. Each Bombproof begins the game marked with a No Move counter. Units set up within such a Bombproof gain Freedom of Movement only as a result of a dr ≤ the game turn (made by the Japanese player during each Japanese RPh for each still-marked Bombproof). Once the No Move counter is removed, all units within that Bombproof may move/rout/advance normally [EXC: ISSR 3]. The following drm apply to the Freedom of Movement dr:

-1 if all units in Bombproof are Elite
+x leadership modifier of best Leader in the Bombproof

5. The Japanese player may apply a -3 drm to the LD DR of his first Leader of the Betio Island Command group, -2 to the LD DR for his next two Leaders of the Betio Island Command group, and -1 to the fourth and fifth LD DR for the Betio Island Command group, and -2 to the LD DR for his first Leader of the Reserve Pool, and may make two *dr* on the LD Table for Armor Leaders.

6. The Marine player may designate ten LVT(A)2 as being equipped with wire-removal grapnels [U.S. Vehicle Note 59].

AFTERMATH: *The Japanese had allowed a number of LVTs of the 3/2 to land on the beach unmolested by fire. This was the defenders' first encounter with the strange vehicles and the biggest threat seemed from the landing boats out on the reef. The gunners soon realized their mistake when Marines unexpectedly began pouring over the sides of the LVTs. The Japanese turned the firestorm of machine-gun fire and anti-boat rounds to the LVTs. The Marines on the beach were then completely pinned down and again the Japanese could level their fire on those Marines now wading ashore with more than 2,000 yards to cover. A sense of desperation began to creep into the Marine command. The intense crossfire in the cove area scattered the landings of 2/2 and decimated the follow-on forces of 3/2. Major Schoettel, commander of 3/2, sent a disenhearting message to Colonel Shoup, "We have nothing left to land." This was taken to mean that 3/2 was gone. The commander of 2/2 was dead. It seemed that nothing was working. Major Mike Ryan, Commander, Company K, was wading into the impossible curtain of steel when he saw a Marine standing on the "bird's beak" waving men in without care. Ryan moved in that direction and started bringing all the Marines he could. Before long he had managed to organize a small command of survivors from almost every unit. Ryan finally got word to Colonel Shoup that he was in fact alive and, incredibly, making progress.*

15.53 *BRT Campaign Game III:* UTMOST SAVAGERY

CG Dates: 20 AM - 22 PM

TARAWA, BETIO ATOLL, 20 November 1943: *In the darkness of the morning of November 20, 1943, the irresistible force of the United States Marine Corps was about to collide with the immovable object of the Imperial Japanese marines at a very small place called Tarawa. Despite nearly 170 years of maritime tradition, the Corps had never landed in force against a well-fortified defensive position. Betio island was one such fortified location. Surrounded by a fringing reef, Betio island was a natural setting for a fortress. Only three miles long and no more than 800 yards at its widest point, Betio was the most heavily fortified piece of ground in the world. The defenses of the tiny island were designed and built under the direction of Admiral Saichiro, who used his years of training as an engineer to create a breathtaking array of concrete and steel emplacements. Behind a coconut log seawall, emplacements were interwoven with double-apron barbed wire, mines, and tetrahedrons. When the concrete ran out, bunkers were built with coconut logs and sand. Almost 500 positions were constructed, mutually supporting and packed with automatic weapons. Betio bristled with armaments that included 8-in. naval guns, large caliber anti-aircraft guns, anti-tank guns, and machine guns too numerous to count, all manned by over 4,000 well-trained Imperial marines. "One million Americans couldn't take Tarawa in 100 years," said Rear Admiral Meichi Shibasaki, the commander of the garrison, to his troops. Eighteen thousand men of the 2nd Marine Division were about to give it a try.*

PLAYING AREA: Entire BRT map.

CG III VICTORY CONDITIONS: The Marines win immediately upon Controlling all Fortified Building Locations, pillboxes, Bombproofs, and Command Bunkers provided the Japanese amass ≤ 804 CVP.

INITIAL-SCENARIO VICTORY CONDITIONS: The Marines win at game end by amassing more Victory Points than the Japanese. CVP are awarded normally and each pillbox Eliminated or Captured by the Marines is worth to them a number of VP equal to the pillbox's stacking capacity.

JAPANESE OB
(see SSR CG17 for ELR)

3rd Special Base Force sets up as indicated and as per applicable Reserve Pool provisions: {SAN: 4}

Elements of Island Command set up in Hinterland hexes ≥ 3 hexes from any Beach hex or in the Reserve Pool [EXC: FPP set up anywhere *on-map*]:

4-4-8 x4 3-4-7 x8 3-3-6 (Korean Labor) x14

Leader x8 (see ISSR 5)

A.L. x2 (see ISSR 5) Type 95 Ha-GO x8

250 FPP

Elements of 3rd Special Base Force set up in Hinterland hexes ≤ 3 hexes from any hex of a specified beach; eligible fortifications may also set up in Beach/Ocean hexes with a hex coordinate of ≥ 11:

Red Beach One, Red Beach Two, Red Beach Three, and/or Green Beach:

4-4-7 x42 Leader x8

MMG x8 LMG x14 50mmMTR x6

Red Beach One:	Red Beach Two:	Red Beach Three:
27[4] CAPP	27[6] CAPP	24[3] CAPP
52 GPP	52 GPP	50 GPP
50 FPP	75 FPP	50 FPP

Elements of 111th Construction Battalion set up ≤ 3 hexes from any hex of Green Beach (see ISSR 3):

3-4-7 x22 LMG x4 Leader x4

50mm MTR x6

31[3] CAPP 46 GPP 50 FPP

1st and 2nd Companies, 7th Special Naval Landing Force [ELR: 5] set up in Reserve Pool and/or adjacent to any hex of a specified beach (see ISSR3) [EXC: Bombproofs may setup two hexes away from any Black Beach hex.; other units assigned to this beach may setup in such a Bombproof]:

Black Beach One and/or Black Beach Two:

4-4-8 x32 Leader x8
10x MMG LMG x10 50mm MTR x10

Black Beach One:	Black Beach Two:
31[5] CAPP	45[5] CAPP
15 GPP	24 GPP
20 FPP	35 FPP

RESERVE POOL enter on any friendly Controlled east-edge land hex and/or set up on/adjacent-to Black Beach hexes and ≥ 3 hexes from all Marine units.

4-4-8 x22 4-4-7 x14 3-3-6 (Korean Labor) x12

MMG x10 LMG x10 50mm MTR x4

Leader x15 (see ISSR 5)

Type 95 HA-GO x2

MARINE OB [ELR: 5]

Elements of Regimental Landing Team Two, and Regimental Landing Team 8, 2nd Marine Division enter at Red Beach One, Red Beach Two, and Red Beach Three Entry Areas with one BLT per Entry Area: {SAN: 5}

3rd Battalion, 2nd Marines (BLT 3/2)

2nd Battalion, 2nd Marines (BLT 2/2)

2nd Battalion, 8th Marines (BLT 2/8)

40x LVT1(m) 20x LVT(A)2

Follow-On Battalion: 1st Battalion, 8th Marines enter at any *one* Red Beach Entry Area.

Regimental Reserve: 1st Battalion, 6th Marines enter at any *one* Red Beach or Green Beach Entry Area (may enter on Pneumatic Boats [E5.12])

Divisional Reserve: 2nd Battalion, 6th Marines enter at any *one* Red Beach or Green Beach Entry Area

INITIAL SCENARIO SPECIAL RULES

1. EC are Moist, with no wind at start. See BRT SSR.

2. The Marine player receives four Naval Bombardments (SSR CG4). Two Bombardments have a two hex radius and two Bombardments have a three hex radius.

3. All pillboxes/Bombproofs/Command-Bunkers in the Setup Areas of the 111th Construction Battalion and the 1st and 2nd Companies, 7th Special Naval Landing Force, must be manned to capacity if possible. Any units of these formations not set up in a pillbox/Bombproof/Command-Bunker [EXC: a Gun and its manning crew] must set up in the Reserve Pool. No unit of the 7th SNLF which sets up onboard/HIP can leave its initial Location until the start of Japanese Turn 3.

4. Each Bombproof begins the game marked with a No Move counter. Units set up within such a Bombproof gain Freedom of Movement only as a result of a dr ≤ the game turn (made by the Japanese player during each Japanese RPh for each still-marked Bombproof). Once the No Move counter is removed, all units within that Bombproof may move/rout/advance normally [EXC: ISSR 3]. The following drm apply to the Freedom of Movement dr:

-1 if all units in Bombproof are Elite

+x leadership modifier of best Leader in the Bombproof

5. The Japanese player may apply a -3 drm to the LD DR (15.6) of his first leader of the Betio Island Command group, -2 to the LD DR for his next two leaders of the Betio Island Command group, and -1 to the fourth and fifth LD DR for the Betio Island Command group, and -2 to the LD DR for his first leader of the Reserve Pool, and may make two *dr* on the LD Table for Armor Leaders.

6. The Marine player may designate ten LVT(A)2 as being equipped with wire-removal grapnels [U.S. Vehicle Note 59].

AFTERMATH: *The initial assault waves managed to negotiate the fringing reef as planned, but the follow-up forces were stopped cold more than 2,000 yards from the shore. As they waded ahore, they were subjected to intense withering fire from the dug-in Japanese. By nightfall, there were more than 1,500 Marines casualties. The invaders held only a small section of the beach. The fanatical resistance by the defenders caused the destruction of two full battalions. The first break for the Marines came as 1/6 landed unmolested in the evening of D+1. The next morning, focused attacks were organized. Each bunker had to be taken out individually. The Japanese continued to fight with skill and determination, making the reduction of the defenses costly. The main resistance centered in the "Pocket" between Red Beach 1 and Red Beach 2. Though the* rikusentai *fought to the last man, the battle was finally won when the Japanese mustered for the final Banzai charge on the night of D+2. More than 400 Japanese tried to turn the tide by launching a series of frontal attacks along the airfield. The Marines held, and the Japanese force was finally broken in heavy hand to hand combat. The blood shed on Tarawa was beyond that imaginable. The courage and determination of the* rikusentai *forced the Marines to pay in blood for every grain of sand. But the courage, skill, and adaptability of the Marines had carried the day. General Holland Smith saw a young Marine, "one arm still in the air supported by the weight of his body. On top of the seawall just beyond his upright hand, was a blue and white flag, a beach marker to tell the succeeding waves were to land". With tears in his eyes General Smith said, "How can men like these ever be defeated?"*

15.6. *REFIT PHASE:* The following steps (15.601-.6143) are performed simultaneously by each side during the RePh, which occurs between CG scenarios—provided neither side has fulfilled its CG Victory Condition. Each step (and sub-step) must be carried out in the numbered/lettered order given; those not applicable to the current situation may be omitted (e.g., if there are no Blazes on the map, skip RePh step 15.610).

15.601 Conclusion of Melee

15.602 Marker Removal

15.603 Rally, Unloading, Victory Determination, and CVP Totals

15.604 Encirclement, Bog, and Shock

15.605 Wading Unit Survival

15.606 Encirclement Marker Removal

15.607 Marine Perimeter Determination

15.608 Retained Units & Hidden Fortifications

15.609 Prisoners

15.610 Extinguishing Flames and Blazes

15.611 Recombining, Battle Hardening, and Field Promotion

15.612 New CG Date & SAN Adjustment

15.613 Equipment Repair and Replenishment

15.614 Purchasing Fortifications and Guns

MELEE

15.601 *CONCLUSION OF MELEE:* All opposing units in the same Location are now assumed to be in *Melee*, and must undergo an (unlimited) number of Melee rounds until no more CC attacks can be made. Such units are free to perform any/all normal CCPh activities associated with Melee (i.e., attack, Capture, Withdrawal, etc.). Consider the side

that moved first in that scenario to be the ATTACKER. Following the conclusion of the first round of RePh Melee in a Location, each still concealed unit therein is revealed, each pinned unit becomes unpinned, each CX counter is removed, each vehicle currently in Motion therein has its Motion counter removed, and each Stun counter on a vehicle therein is flipped over to its "+1" side and the vehicle may be marked as CE if so desired.

15.602 *MARKER REMOVAL:* All hidden/Cloaked units and equipment are placed on-map in their present Location [EXC: Hidden Japanese units and equipment need not be revealed provided they set up in their current Location for the next CG scenario; such units/equipment may set up HIP for the next CG scenario at no cost in FPP]. All system markers listed below are removed from the map at this time in the following order (Right of Inspection *does not* apply to revealed stacks):

a) SR and FFE markers;

b) IR and SMOKE counters;

c) Acquired counters;

d) DM, Disrupted, Banzai, Berserk, Fanatic Wall Advantage and Crest markers, Dummy stacks, Dummy Cloaking counters, and "?";

e) CX, Motion, CE, BU, and Labor markers;

f) All hidden/Cloaked units and Equipment [EXC: non-Isolated HIP Japanese] are placed on-map in their setup Location;

g) Sniper counters;

h) FB counters.

15.603 *RALLY, UNLOADING, VICTORY DETERMINATION & CVP TOTALS*



15.6031 *RALLY & UNLOADING:* All currently broken units of both sides automatically rally, even if Disrupted; no DR need be made. All Passenger/Rider Personnel and Equipment are then unloaded into their vehicle's Location. All mobile LVT are removed and Retained off-map. Any unpossessed SW/Gun in a mobile LVT is Eliminated. All Guns hooked up and in tow remain so (for now—see CG13); if its vehicle is eliminated in the RePh, so is the Gun that is being towed. When step 15.6031 is completed, CG-Scenario End has occurred.

15.6032 *CG-SCENARIO VICTORY DETERMINATION:* Final hex/building/pillbox Control and Casualty VP are now determined, and the winner of the just-completed CG scenario is determined as per 15.615 or 15.51–.53 as applicable. Units/Equipment Eliminated in the RePh after CG-Scenario End never count for CG-Scenario Victory Determination (but do count towards CG Victory Determination). See 15.609 for Prisoner Casualty VP at CG End (15.2), ignoring any Isolated status of Marine guards. On its CG Roster, each side records its Current Casualty VP Total in the "Casualty VP" column.

15.604 *ENCIRCLEMENT, BOG & SHOCK*



15.6041 *ENCIRCLEMENT:* Each Encircled unit [EXC: prisoner] must take a separate 1TC for Marine, and NTC for Japanese (Leader DRM may apply). If it passes its TC, the unit remains in its present location (Encircled markers are not removed until RePh 15.606). Failing the TC results in the unit's immediate elimination [EXC: the Encircled Vulnerable PRC of an Immobile vehicle are Eliminated, leaving the vehicle abandoned]. Each prisoner that an Eliminated Encircled unit was Guarding must if possible be claimed by another unit in that Location friendly to the Eliminated unit. If the prisoner is not claimed, it is considered Rearmed (A20.551) and may automatically possess any equipment that an Eliminated Encircled unit left Unpossessed in the location.



15.6042 *BOG:* Each non-abandoned, bogged/mired vehicle must undergo ≥ one (Ocean) Bog Removal attempt (D8.3; 2.31) until it is either unbogged or immobilized (MP expenditure is immaterial).



15.6043 *SHOCK:* Each Shocked/UK AFV must undergo a number of recuperation attempts (C7.42) until either the marker is removed or the AFV is Eliminated.

15.605 *WADING UNIT SURVIVAL:* Each Infantry-MMC/mobile-vehicle that is in an Ocean hex must attempt to enter the nearest (in MP/MF) friendly-Controlled Beach hex by making a successful DR on the Wading Unit Survival Chart. Each unit must roll separately but may first drop possession of any SW/Gun.

WADING UNIT SURVIVAL CHART

DR	Inf	Armor
≤ 7	Survives (a)	Survives (a)
8–9	Casualty Red. (a)	Mired (b)
10	Casualty Red. (a)(d)	Immobilized (b)
≥ 11	Eliminated	Eliminated

Notes:

a place on nearest friendly Beach hex
b in current Location
c check for CS/cs normally; roll for PRC again
d all possessed SW/Guns eliminated

DRM:

+2 Encircled Infantry
+1 per multiple of 2 (3 if vehicle) hexes (FRD) from destination
+x (Armor) Leader DRM (applies to ≤ 1 MMC per Location)
-1 per 5 AF of best Armor facing (FRD)*
+1 per PP > IPC (a stacked leader may combine to increase one MMC's IPC; Guns are treated as having 5 PP)
+1 Unarmored vehicle*
+1 Wounded Pathfinder*
+2 no Pathfinder*

* NA to Infantry

15.606 *ENCIRCLEMENT MARKER REMOVAL:* All Encircled counters are now removed.

15.607 *MARINE PERIMETER DETERMINATION:*[17] Each side may (at *any time* during/after a CG scenario) place a friendly Location Control marker (supplied in the BRT counter mix) in a *Strategic Location* (see Definitions; 15.2) that it currently Controls (or is awarded Control of, as per A26.16), if that Location's Control might affect victory determination or the alignment of the perimeter. The Control marker must be removed (or flipped over) if the Controlling side loses Control of that Location. Note that non-Strategic Locations may still be Controlled but never receive a Control marker. The Marine player now places Perimeter markers, one at a time, in a series of Marine-Controlled, ground level Strategic Locations that are ≤ 2 hexes apart in an attempt to create one or more "loops"; each "loop" must begin and end at two adjacent Beach hexes. As each subsequent Perimeter marker is placed, it must be pointed towards a Location within two hexes containing another Perimeter marker, along a(n) (Alternate; E12.11) Hex Grain that is devoid of any armed Japanese units, Ocean hexes, or Japanese-Controlled Strategic Locations. The placement of Perimeter markers must continue in this manner until the Marine player has formed one or more closed "loops" of connecting (Alternate) Hex Grains which the Marine player is satisfied encloses the largest Perimeter legally possible. The Marine player is free to remove or readjust his previously-placed Perimeter markers until he is satisfied with his Perimeter, so long as all of the markers are legally positioned. Any hex that is part of the Marine Perimeter is a Marine Front Line Location (FLL). Any non-Ocean hex adjacent to, but not within, the Marine Perimeter is a Japanese FLL.

15.6071 *SETUP AREAS:* Each Marine Perimeter defines a Marine Setup Area. The area not within the Marine Setup Area is the Japanese Setup Area [EXC: Ocean hexes]. The Japanese will have only one Setup Area unless the Marines have completely split the Japanese defense. Included in the *BRT* module is a reduced-size copy of the *BRT* map. Each side should now record its Setup Area(s) on a new photocopy of the reduced-size map. After all Setup Areas have been marked, each should be designated with a ID.

15.6072 *ISOLATED UNITS:* All on-map Marine units outside of, and Japanese units inside of, a Marine Setup Area are Isolated. Record the Location of all Isolated units and the equipment in that Location in order to set them up in that Location in the next scenario.

15.608 *RETAINED UNITS & HIDDEN FORTIFICATIONS*

15.6081 *RETAINED UNITS:* All Personnel, Equipment, and mobile vehicles (even if setup HD in a trench) are now removed from the map and Retained by the side Controlling that Setup Area or Isolated Location. The units in each Setup Area, the location of all Guns/vehicles in a FLL, and the location of any Immobile units are recorded, as is any vehicle which would be unable to trace a path of contiguous, Enterable, friendly Setup Area Locations to a Hinterland hex without having to cross an un-breached seawall. The Japanese player also records the number and type of reduced-strength units, and the Location of all still-hidden non-Isolated units/equipment..

15.6082 *HIDDEN FORTIFICATIONS:* Each still-hidden Fortification, including all Fortified Building Locations and tunnel (or Passage) entrance/exits in Locations currently Controlled by its purchaser's opponent, is placed on-map [EXC: a tunnel or Passage is revealed only if *both* its entrance and exit Locations are currently enemy-Controlled]. Each on-map Fortification is Controlled by the side Controlling its Location or whose Setup Area it is in.

15.609 *PRISONERS:* Each Japanese prisoner guarded by a non-Isolated Marine unit is eliminated with the Casualty VP normally awarded for prisoners subtracted from the Japanese player's Casualty VP Total. The Japanese player may either retain possession of Marine prisoners (retained prisoners may be freely transferred to another unit in the same Setup Area) or immediately Massacre (A20.4) them; Massacre (A20.4) will be in effect for all subsequent CG Dates and Casualty VP are awarded (but are not doubled). Doubled Casualty VP for prisoners are not awarded to the Japanese player until CG-End. An unguarded, unarmed Japanese MMC is Replaced by a Conscript unit of the same size, whereas an unarmed Marine HS it replaced by a 2-4-8 HS and a full squad by *two* 2-4-8 HS and Retained in the nearest (in the shortest path of contiguous, Enterable Locations) friendly Setup Area (friendly side's choice if ≥ 2 equidistant Areas).

15.610 *EXTINGUISHING FLAMES AND BLAZES:*

15.6101 *BURNING WRECK:* Each Burning Wreck has its Blaze marker removed [EXC: if that wreck is in a obstacle or rubble hex, move the Blaze marker to the building/rubble so that it is now a terrain blaze]. Replace the wreck with a Burnt-Out Wreck (SSR BRT 14).

15.6102 *VEHICLES/WRECKS:* Any vehicle/wreck sharing a Rubble/Collapsed-Tower/building Location with a Flame/Blaze marker becomes a Burnt-Out Wreck.

15.6103 *WOODEN-RUBBLE/COLLAPSED-TOWER:* Remove both the Rubble/Collapsed and Flame/Blaze markers, or just the Flame/Blaze marker if in Printed Rubble, and place a Shellhole counter in the Location. All other previous terrain in the Location is eliminated; replace any vehicle/wreck with a Burnt-Out Wreck.

15.6104 *STONE RUBBLE:* Remove the Flame/Blaze marker. The Stone Rubble still exists and the Location may catch fire again in a later scenario. Replace any vehicle/wreck with a Burnt-Out Wreck.

16.6105 *BUILDING:* Place the correct rubble counter in all ground level locations of each building that has at least one Flame/Blaze in any of its Locations [EXC: towers are replaced by a Collapsed marker], removing each Flame/Blaze marker. Such Rubble may catch fire again in a later scenario.

15.611 *(RE)COMBINING, BATTLE HARDENING & PROMOTION*

15.6111 *(RE)COMBINING:* All retained same-class HS with the same Strength Factors within the same Setup Area must now Recombine (A1.32) so that no more than one of each HS type is Retained in that area [EXC: Marine 2-4-8s; Assault Engineer 3-4-8 HS may only combine with other Assault Engineer HS].

15.6112 *WOUNDED LEADERS:* Each side makes a dr on the following table for each Retained wounded leader:

WOUNDED LEADER TABLE		
Final DR	**Result**	**drm**
≤ 1	Retain unwounded	+1 if Japanese
2–3	Retained Wounded	+1 if Isolated
≥ 4	Eliminated	-1 if Heroic

15.6113 *HEROES & MMC:* On each side, each Retained hero [EXC: leader] is Eliminated; however, each such Elimination enables that side to Battle Harden one non-crew MMC of the owner's choice within the same Setup Area as that hero [EXC: if unable to Battle Harden an MMC in that Area, the hero is Retained].

15.6114 *LEADERS:* On each side, each Retained heroic leader Battle Hardens and loses his heroic status [EXC: a heroic 10-3 loses his heroic status with no additional effect]. In addition, the side that won the preceding CG scenario may Battle Harden one non-Isolated leader or create one 7-0 (8-0 if Japanese) leader.

15.612 *NEW CG DATE & SAN ADJUSTMENT*

15.6121 *NEW CG DATE:* Each passage of this RePh step represents the start of a new CG Date. The Marine player is always considered to be attacking in every AM/PM CG scenario until his CG Victory Conditions have been met. See SSR CG10 for Night CG scenario generation.

15.6122 *SAN ADJUSTMENT:* The side that lost the preceding CG scenario immediately reduces its current SAN by 1 but to no less than 3.

15.613 *EQUIPMENT REPAIR & REPLENISHMENT*

15.6131 *VEHICLES:* Each side performs the applicable step(s) below for each vehicle in a friendly Setup Area.

a) ABANDONED: Each abandoned vehicle may remain abandoned, or may be re-manned and operated (as per A21.22 or D5.42/-D6.631) by Personnel (including any vehicle crew) Retained within the same Setup Area.

b) IMMOBILIZATION REPAIR: Each non-captured, non-abandoned, immobilized vehicle that is not in an Ocean Location must make a dr on the following table to determine if the immobilization is repaired:



IMMOBILIZATION REPAIR TABLE	
Final DR	**Result**
≤ 1	Becomes Mobile *
2–3	Remains Immobile



drm:

-x Armor Leader drm
+1 if only Non-Qualified Use (A21.13) possible
+1 if Japanese, if in FLL, or if Isolated (+1 each case)

* May now setup in its Setup Area outside its recorded Location

c) STUNNED: Each vehicle/crew which is marked with a Stun marker must now make a dr to determine the final result of the Stun:

STUN RECOVERY TABLE	
Final DR	**Result**
≤ 2	Retain unwounded
3–6	Retained Wounded
≥ 7	Eliminated*

drm:

+1 if Japanese
+1 if Isolated
-1 if Retained off-map
* Crew Eliminated; vehicle Abandoned in its current (recorded) Location

d) AFV RECALL: See SSR BRT12.

15.6132 *WEAPON REPAIR:* Each side now makes a separate dr on the table below for each malfunctioned, non-captured Retained Weapon in a friendly Setup Area that contains Personnel (or, for a vehicular Weapon, an Inherent crew in that vehicle).

WEAPON REPAIR TABLE	
Final DR	**Result**
≤ 1	Repaired
≥ 2	Eliminated*

drm:

-x Weapon Repair Number
-2 if vehicular
-1 if U.S.
+1 if only Non-Qualified Use (A21.13) possible
+1 if Isolated

* If vehicular mounted, the weapon is disabled



15.6133 *FT/DC:* Each FT/DC removed from play during the preceding CG scenario is retained by the Marine player [EXC: if lost due to being unpossessed in an Ocean location, to an original 12 usage DR, or to SW Destruction (A9.73-.74)]. Place each such Retained SW in the Marines player's "Retained" box on the Chapter T Divider. However, the Marine player may retain in this manner for each Setup Area no more friendly FT/DC than he has 7-6-8 squads.

15.6134 *CAPTURED EQUIPMENT:* Each sides makes a separate dr for each captured, Retained Weapon in each friendly Setup Area that contains Personnel: if ≥ 4 it is Eliminated (disabled if vehicular). Each already-malfunctioned Captured

Weapon is Eliminated (disabled if vehicular). See SSR BRT 11 for disabled MA. At its capturer's option, a captured vehicle may remain in play if it has any functioning Weapon (even if its MA is disabled); otherwise, it is turned into a (Burnt-Out) Wreck.

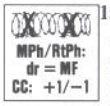


15.6135 *ABANDONING, SCROUNGING & REMOVAL:* At his option, the Controlling player may Abandon and/or turn into a (Burnt-Out) Wreck ≥ one Non-Recalled vehicle in each friendly Setup Area. Likewise, he may attempt to Scrounge ≥ one non-LVT vehicle/non-Burnt-Out-wreck in each friendly Setup Area. [EXC to all: Such actions are NA unless ≥ one Personnel unit (even an Abandoning crew) is Retained in that Setup Area].

15.6136 *SPECIAL AMMO:* Each non-captured, non-Isolated U.S. Weapon in a Marine Setup Area has all of its Depleted ammunition types (if any) replenished to normal availability. Each such Japanese Weapon must make a dr ≤ 4 for each Depleted Ammo type in order for that special ammunition to be restored. Adjust side records accordingly.

15.6137 *SW/Gun dm/ELIMINATION:* At the Controlling player's option, ≥ one SW/Gun in each friendly Setup Area that contains Retained Personnel may be Eliminated/dismantled/assembled.

15.6138 *LOW AMMO REMOVAL:* Each Low Ammo counter on each non-Isolated unit is now removed.



15.6139 *FORTIFICATION & WRECK REMOVAL:* Attempts may be made to Eliminate (Burnt-Out) wrecks, Immobile vehicles, and other fortifications in friendly-Controlled Locations. Attempts made vs (Burnt-Out)-wrecks/Immobile-vehicles may not exceed the total number of Dozers and vehicles of ≥ 30 tons Retained in that Setup Area.

Only one removal attempt dr may be made per item per completion of this RePh step (and does not create a Labor marker). If a Location contains > one of the above mentioned items, the side may roll once for each, but must announce which item it is currently rolling for. Each Engineer *squad*, and Korean laborer *squad*, and bulldozer may participate in one clearance attempt for an item in its Setup Area.

FORTIFICATION REMOVAL TABLE

Item	Final dr Req'd
Wreck/Immob.-Vehicle, Tunnel/Passage	≤ 3
Wire, Seawall breach	≤ 2
Rubble, Pillbox, Bombproof, Entrenchment	≤ 1

An original dr of 6 for an item in a Front Line Location results in Casualty Reduction for one MMC in that Setup Area (randomly determine which type of MMC).

drm:

+2	Item is adjacent to an enemy Front Line Location
+1	Item is one hex from an enemy Front Line Location
-1	Per each participating Assault-Engineer/Korean-Labor squad
-2	Per each participating Bulldozer

15.614 *PURCHASING FORTIFICATIONS AND GUNS:* The Japanese player now secretly allots GPP, CAPP, and FPP for the purchase of, respectively, Guns/machine-guns, pillboxes, and fortifications. Starting after the Initial CG Scenario, the Marine player secretly allots any FPP accrued pursuant to 15.6143. All purchase points of any kind must bespent prior to the start of the next CG Date or they are forfeit. The purchase points expended and the Guns/machine-guns, pillboxes, and fortifications purchased may all be kept secret until the end of the CG, but must be marked on the Beach Defense Record or the Fortification Location Record, as applicable. As each item is selected for purchase, record its ID (and the purchase points expended to purchase it) in the appropriate column of the Beach Defense Record or the Fortification Location Record. The GPP, CAPP, and FPP available per Beach Setup Area are listed in the Japanese OB for each CG. The number listed for each Beach applies to that specific Beach Setup Area only; purchase points designated for one Beach Setup Area may not be transferred to or used in any way in another Beach Setup Area [EXC: FPP designated for the Island Command may be combined with FPP designated for another Beach Setup Area for fortifications setup in Hinterland hexes]. A Beach Setup Area extends out into the Ocean and one or more are designated for each CG as per the Initial Scenario OB.

15.6141 *GUN PURCHASE POINTS (GPP):* GPP are used by the Japanese player to purchase Guns and machine guns from the Gun Purchase Point Table. GPP expenditures are recorded on the Beach Defense Record. All weapons purchased with GPP include a 2-2-8 Infantry crew.

Weapon	GPP Cost	Max per Beach	CG Maximum CGI	CGII	CGIII
HMG	4	4	8	2	16
.50cal HMG	5	4	8	12	14
Twin 12.7 (12 IFE)	6	4	4	6	8
37* INF	3	6	8	12	14
37L AT	4	4	6	9	12
Type 92 70* INF	3	6	12	14	16
Year 41 75* INF	5	4	6	10	12
Year 38 75* ART	4	4	6	8	12
Type 10 76L AA	5	4	6	8	10
Type 88 75 AA	6	3	4	6	8
Year 10 120L AA	7	2	2	2	4
Year 3 140L ART	8	2	2	2	2
8-in. Gun Turret †	8	2	2	2	2

† May not set up on Green Beach

15.6142 *COVERED ARC PURCHASE POINTS (CAPP):* CAPP are used by the Japanese player to purchase pillboxes. A pillbox is worth a number of CAPP equal to its CA TEM. CAPP expenditures are recorded on the Beach Defense Record. The Japanese player may use CAPP to purchase any of the following pillbox types: 1+3+5, 1+4+6 (6.31), or 1+5+7. A pillbox purchased with CAPP must set up adjacent to a Beach hex with at least one adjacent Beach hex within its CA in all CG scenarios. In the Initial Scenario of a CG, every pillbox must be filled to capacity before any Japanese unit may set up in a non-pillbox Location. A pillbox purchased with CAPP ordinarily has a stacking capacity of one squad-equivalent. The CAPP allotment for a beach may be followed by an exponent (termed the CAPP Exponent) that represents the number of squad-equivalent stacking capacities the Japanese player may add to one or more pillboxes set up in the Setup Area for that beach.

EX: "26^2 CAPP" means that the Japanese player may spend up to 26 CAPP and either increase the stacking capacity of two pillboxes by one squad-equivalent, or increase the stacking capacity of one pillbox by two squad-equivalents.

15.6143 *FORTIFICATION PURCHASE POINTS (FPP):* FPP are used by both players to purchase fortifications for their respective Setup Areas. FPP expenditures are recorded on the Beach Defense Record and/or the Fortification Location Record. During the RePh, the Japanese player receives two FPP for every Korean squad-equivalent (FRU) currently in a Japanese Setup Area. The Marine player receives one FPP for every Assault Engineer *squad* currently in a Marine Setup Area. No Fortification may set up on/north-of hexrow Y.

FORTIFICATION PURCHASE TABLE

Fortification Type	FPP Cost	Notes
Bombproof	10	J,a,f
Fortified Building Location	8	J,h
Trench, Passage	4	J,a
Tetrahedron	8	J,a,n
Tetrahedron/Wire	10	J,a,n
Seawall breach hexside	4	—
Wire	5	J,a
Foxhole	3/2/1	d,k
HIP	3/2/2/1	J,e,m
"?"	1	g,k,l
SAN Increase	8	c
Tunnel	30	J,a
A-T Mine Factor	4	J,a,b
Pillbox	(Capacity+CA+NCA)x2	J,a

[J] Japanese only.

[a] Not available after Initial CG scenario.

[b] Maximum of 10 may be purchased per Beach Setup Area; must set up with tetrahedron (see 1.11)

[c] Maximum of one may be purchased per RePh.

[d] 3S/2S/1S Foxhole costs.

[e] Listed cost is per Squad/HS/crew/SMC. SW may set up with HIP unit up to IPC of that unit (a leader may lend its IPC to a MMC).

[f] May not set up adjacent to a Beach hex.

[g] Marines may purchase only during RePh prior to an AM or Night CG Date.

[h] Cost is double after Initial CG scenario.

[k] May set up in an Isolated Location.

[l] May set up in a Front Line Location.

[m] HIP may be *purchased* for ≤ 5% of the on-map Japanese squad-equivalents in a daytime scenario (or 10% in a night scenario). See SSRs CG10 and CG11 for night scenarios.

[n] Must set up in an Ocean hex. Limit of 4 of *any* type of tetrahedron per Beach Setup Area.

15.615 *CG-SCENARIO VICTORY CONDITIONS:* The Marines win at game end by amassing more Victory Points than the Japanese. CVP are awarded normally and each pillbox Eliminated or Captured by the Marines is worth to them a number of VP equal to the pillbox's stacking capacity.

15.616 *BANZAI NIGHT ATTACK DECISION:* After any PM CG Date prior to CG End, the Japanese player must now secretly record whether he will attempt a Night Banzai Attack (see SSR CG10).

15.620 *UNIT SETUP:* The Japanese player sets up first in the Initial CG scenarios and in all PM CG scenarios, and the Marine player moves first in all AM/PM scenarios; see 15.6205. For Night scenarios, see 15.6203.

15.6201 *ISOLATED UNIT SETUP:* The side that sets up first (15.6205) on a given CG Date now sets up all of its Retained units, Equipment, and new Fortifications which will go into an Isolated Location, after which the other side does likewise. An Isolated Marine unit must set up, Encircled, only in its recorded Location or ADJACENT to that Location in a friendly-Controlled Strategic Location [EXC: Gun/AFV in Fortified-Building-Location/Pillbox and Immobile/Abandoned vehicles may not be moved]. An Isolated Japanese unit may set up either Encircled in any friendly Location of its recorded hex or in the closest Japanese Setup Area.

15.6202 *NON-ISOLATED UNIT SETUP:* The side that sets up first now sets up the remainder of its Retained units, Equipment and new Fortifications in eligible Locations of the Setup Area each is Retained in:

- Immobile vehicles, AA Guns, and Guns in pillboxes/fortified-building-locations must setup in their recorded location.
- No vehicle which did not have access to a Hinterland hex in its Setup Area via an un-breached seawall (15.6081) may set up in a Hinterland hex.
- See 15.6143 for setup restrictions on certain fortification types (record the hex coordinates of new Fortification setup Locations on the Fortification Location Record.
- All 5/8" counters and .50 HMG (and manning crews) must set up on-map [EXC: Relocated Guns, SSR CG 13].
- No 5/8" counter may set up in a Front Line Location [EXC: unless it ended the last CG scenario in that hex].
- HIP units may not set up in a Front Line Location (see CG11).
- A Japanese unit from the Reserve Pool that sets up on board must set up ≥ 3 hexes from all Marine Front Line Location; if unable to do so, it must enter as reinforcements (CG3.2).
- During a Night Banzai Attack, any Japanese unit that sets up as part of the Banzai charge must set up ≥ 3 hexes from all Marine Front Line Location.
- Any Marine units which would be forced to setup overstacked (as per RePh 15.605) due to Setup Area limitations may set up in an Ocean hex which is adjacent to the Beach hex which it tried to reach during RePh 15.605. This is the only time a unit may set up in Ocean [EXC: immobile vehicles].
- Units/Equipment Retained off-map must enter as reinforcements. See SSRs CG2 & CG7.2 and CG3.11 for SFCP, and BRT11 for LVT.

Once the side setting up first has completed setup, the other side follows the same procedure.

15.6203 *BANZAI NIGHT ATTACK DETERMINATION (SSR CG10):* Prior to the start of each AM CG scenario after the Initial CG scenario, the Japanese player reveals whether he will attempt a Night Banzai Attack. If so, and if he makes a Final Night Banzai Attack dr ≤ 1, a Night CG scenario occurs. The following drm apply to the Night Banzai Attack dr:

-1 for each previous Night CG Date in which a CG scenario did not occur *or* if CGI.

-1 for each AM/PM CG scenario after the initial CG scenario in which the Japanese player did not enter any units from the Reserve Pool [EXC: NA if a Night Banzai Attack has already occurred].

15.6204 *SCENARIO COMMENCEMENT:* Players are now ready to begin the CG scenario. Each side announces its current SAN.

15. 6205 *SET-UP/MOVE/SCENARIO-LENGTH TABLE*

CG SCENARIO SETUP AND GAME LENGTH TABLE

CG Date	Set Up First	Move First	CG Scenario Length
20 AM	Japanese	Marines	7.5
20 PM	Japanese	Marines	7
20 NT	Marines	Japanese	6
21 AM	Marines	Marines	7
21 PM	Japanese	Marines	7
21 NT	Marines	Japanese	6
22 AM	Marines	Marines	7
22 PM	Japanese	Marines	7

BRT SPECIFIC VEHICLES AND ORDNANCE

JAPANESE VEHICLE NOTES





19. *Vickers 8-in. Coastal Defense Gun Turret:* Four of these gun turrets were present on Betio Island during the invasion in November 1943. They were placed in tandem on the extremities of the island. The two on the east end of the island were mounted in circular concrete emplacements and could be traversed through 360°. The two on the southwest of the island were mounted in a stair step emplacement made of concrete, sand, and coral. The top gun turrret could be traversed through 360°. while the bottom gun turret could traverse through 270°. These guns have been referred to as the "Singapore Guns" because of the belief that they were part of the war spoils from the capture of Singapore. It has been proven, however, that the guns were originally purchased from Vickers by Japan in 1905 as part of a contract for 12 guns. The muzzle velocity was lower than similar guns. None of the ammunition for these guns was manufactured after 1919, and pre-invasion trials showed spotty performance. Each 8-in. Gun Turret is treated as an Open Topped Armored Cupola (D9.5) and for CC purposes as an immobile Open Topped AFV [EXC: PAATC NA]. The manning crew cannot BU (even if Stunned) and receives a +3 CE DRM. The BPV for the 8-in. Gun is 43.

† The rear AF is 0 as shown by the third AF listed on the counter.

† Minimum range is 12 hexes, maximum range is 500 hexes.

ERRATA: The *Japanese* 200L Basic AP To Kill number is "19."

JAPANESE ORDNANCE NOTES



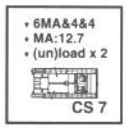
25. *Type 10 8cm, Naval High-Angle Gun:* This gun was used primarily for coastal defense. Mounted on a pedestal to take advantage of its anti-boat capability, the type of mount used on some islands diminished the gun's effectiveness in AA fire. Although identified as 8cm, a true measurement of the bore shows that it was actually 76.2mm, with a muzzle velocity slightly lower than Russian guns of similar caliber. The anti-aircraft rounds used were capable enough, but the gunners at Tarawa set the fuses too high. A complement of 16 guns made up the third company of a Special Naval Landing Forces unit. The Gun is available from 1921 through 1945. See Japanese Multi-Applicable Ordnance Notes D and E.

RF 1.2 in central Pacific, 1.6 in other areas. The BPV for the Type 10 is 38.

ERRATA: The *Japanese* 76L Basic AP To Kill number is "13."

U.S. VEHICLE NOTES





59. *LVT2(m):* For the invasion of Tarawa, the Second Marine Division had many LVT1s and LVT2s (approximately 75 of the former and 48 of the latter) that were modified by bolting on 1-inch boiler-plate. The field modified version of the LVT1 is essentially the same as the LVT(A)2 (U.S. Vehicle Note 48). These field-modified vehicles also had one or two .50-cal. machine guns mounted on the front cab. One Browning .30-cal. was also mounted on each side. The gun mounts were on a track that allowed the positioning of the weapon in almost any direction; these skate mounts also prevented any attempts to dismount the machine guns. For the invasion, 15 of these modified LVT had grapnels welded onto their stern sides that were designed to remove wire obstructions as the vehicle moved toward the landing beach. See U.S. Multi-Applicable Vehicle Notes D, H, Q, and T.

† If designated as being equipped with a wire-removal grapnel, no Bog check is required when entering Wire. Instead, on a dr of ≤ 2, the Wire is removed from play (a Wire/tetrahedron is replaced by a tetrahedron counter).

† Dates and RF are: 11/43 (1.5), 1/44 (1.4), 7/44 (1.3), 1/45 (1.2). The BPV for the LVT2(m) is 48.

FOOTNOTES

1. 6.0 BUNKERS. The various command bunkers, pillboxes, and bombproofs mostly were made of palm trunks with sand covering, or concrete. Two attempts were made to provide more concrete to Betio, but both transports were sunk. Nevertheless, the bunkers were very well made. Some bunkers had spider trenches leading to firing ports and to other covered positions. The films and pictures familiar to many of the sand hill and huge concrete structure show just the largest of several command bunkers locations on the island. Admiral Shibasaki, commander of the Japanese forces on Betio, died as he was moving his headquarters from the most famous of these bunkers in order to provide the Japanese wounded with a protected haven. These rules give the Japanese player the opportunity to match the genius of Rear Admiral Saichiro Tomonari in devising the defense of Betio.

2. 6.5 BOMBPROOFS: These fortifications were built all over the island for ammunition and supply storage but proved very useful for infantry defense.

3. 7.1 TOWERS: The Japanese had built several observation towers to spot for the long range anti-shipping guns on Betio.

4. 8.1 8-INCH GUNS: These are the so-called "Singapore guns." For many years, some historians erroneously thought these guns had been captured by the Japanese from the British during the siege of Singapore. In fact, the guns were Vickers 8-inch guns purchased from the British during the Russo-Japanese war of 1905. During the battle for Betio, the guns never scored a hit on a U.S. Navy vessel. These two on the southwest end of the island were both destroyed by a direct hit on the ammunition storage shelter by a naval gun. Two more were mounted on the east end of the island.

5. 13. AIRFIELD: The main runway on Betio was built of four inches of concrete, while the taxiways were constructed of crushed coral.

6. 15.2 RED BEACH THREE: Only a portion of Red Beach Three is in play. Adding the remainder would have meant more map sheets without changing play much.

7. 15.4 CG 2.1 BATTALION LANDING TEAMS: The invasion of a hostile shore is one of the most complicated operations undertaken by a military force. In Marine operations, a major part of an invasion plan is the assignment of a particular infantry regiment to a specific invasion beach. The assigned regiment is reinforced with other units, and the resulting combined arms force is called a Regimental Combat Team (RCT). During the landing phase of an operation, the RCT is called a Regimental Landing Team (RLT). The regiment commander assigns each of the regiment's organic battalions to a sub-division of the regiment's assigned landing beach. Each such battalion is then reinforced and becomes a Battalion Landing Team (BLT).

8. 15.4 CG2.3 ASSAULT WAVES: The forces included are correct historically for the initial BLTs in each CG, but the reinforcement designations are not entirely historical. Two battalions, the 1/2 and 3/8, have been left out of the *BRT* OB. Two additional battalions of infantry made the Marines too strong in the CG, and the 1/2—which landed on the heels of the 2/2—had effectively been eliminated while wading into the beach. The intent is to give the Marine player a feel for planning an assault against a heavily-defended hostile shore. In an amphibious assault the decisions made in the planning stages will often win or lose the battle. For example, where will the BLT HQ come in? In this action Colonel Crowe commanding 2/8 came with the initial assault waves, whereas Major Schoettel came with the third wave. Colonel Crowe had control of his forces from the time he hit the shore, but Major Schoettel did not gain control until the night of D+1. And of course in the middle, Colonel Amey was killed on the way in.

9. 15.4 CG3.1 NAVAL GUNFIRE: Naval gun fire on Betio has universally been declared a disaster. The low-lying island caused the majority of the larger caliber shells to skip across the island causing minimal damage. On the positive side, however, was the bravery of the crews of the USS RINGGOLD (DD 500) and the USS DASHIEL (DD 659) on D-Day. These ships went into the lagoon and provided direct fire on the Japanese fortifications. After some semblance of command and control was obtained the 5-inch guns of these two ships wreaked havoc on the defenders (see SSR CG3.21).

10. 15.4 CG5 CLOAKING: Without this rule, the Japanese player could spend the entire first turn eliminating all the leaders and SW.

11. 15.4 CG6 AIR SUPPORT: The primary problem with the air support received on Betio was timing. The naval task force and the landing force mixed up "Beginning Morning Nautical Twilight" and "Civil Twilight." Consequently, the air support arrived on time according to the clocks of the air crews, but over an hour late for the needs of the amphibious forces. This discrepancy caused a cessation of naval gunfire for a critical thirty minutes, enabling the Japanese to readjust their forces. Also important was the doctrine of "Little Sky, Big Bullet" (largely discredited after Tarawa), which dictated that naval gunfire (or any artillery) not fire while aircraft were operating in order to avoid hitting the friendly air support.

12. 15.4 CG7.1 RESERVE POOL: Although there were no "reserves" for the Japanese units, the reserve pool represents the 7th SNLF units which were defending the south shore and which migrated north after the American intentions were realized. The Reserve Pool helps connect the two rather distinct game segments in the CG: the Marine attempt to get ashore, followed by the Japanese struggle to hold out in the face of superior marine firepower.

13. 15.4 CG 10 NIGHT BANZAI ATTACK: The Japanese defense plan for Betio included contingencies for a counterattack that was not executed due to the loss of Admiral Shibasaki on D-Day. This rule gives the Japanese player a potentially decisive, albeit risky, counterattack option.

14. 15.4 CG 13 M1A1: The 75mm artillery pieces were carried over the reef like all of the other gear.

15. 15.4 CG13 M3A1: Most 37mm AT guns came ashore along the pier, although some were rolled along in the reef. The general depth of the water made it no more difficult to manhandle them than a muddy field, but deeper pockets posed a threat to their continued existence.

16. 15.4 CG17 OVER THE WALL TC: The Marines were pinned down behind the seawall for most of the first day. The greater the cover, the less likely was it that large groups would go over. Only in small groups did the Marines start to destroy the fortifications blocking the advance. The loss of leaders and the intimidating defenses created a need for "courage of even greater measure".

17. 15.607 STRATEGIC LOCATIONS: The intent here is to provide a system for

Footnote 17

setting up for the next CG Date. The concept of front lines is really not applicable on Betio. For example, units of 2/8 reached the far side of the airfield and were completely cut off, with no real ill-effect.

18. BRT SSR 8 MMG USAGE: Commander Sugai IJN, commander of the *rikusentai* on Betio, and Admiral Shibasaki both believed in cross-training troops to fire all available weapons, and they integrated the islands medium machine guns in with the squad defensive positions. Allowing the Japanese 1st line and Elite squads to use MMG without penalty helps simulate this, as well as cutting down on the number of crew counters needed.

19. BRT SSR 11 LVT TC: Operations orders for the assault called for LVTs to provide direct fire support for the Marines ashore. Many LVTs did stay at the beach or venture inland, with one making it to the center of the airfield. It soon became apparent, however, that the follow-on boats could not negotiate the reef. Many intrepid LVT drivers then went back into the lagoon to try to aid the wading Marines and to help with the shuttling of supplies. After Tarawa, Marine doctrine was changed. Close support LVTs were developed to work with Marines ashore.

20. BRT SSR 13 dm SW: Dismantled American support weapons were waterproofed, with parts individually packed. Other Marines often could not recover all the parts after the original crews were incapacitated.

BLOOD REEF: TARAWA CREDITS

DESIGN: Steve Dethlefsen and Eddie Zeman

HISTORICAL RESEARCH: Steve Dethlefsen and Eddie Zeman

DEVELOPMENT AND LAYOUT: Multi-Man Publishing

MAP DEVELOPMENT AND ART: Don Petros

BOX COVER ART: David Pentland

PLAYTESTING: Matt Romey, Scott Jackson, Bill Cirillo, Jeff Thompson, Randy Yeates, Steve Linton, Simon Spinetti, Paul Simonsen, Scott Thompson, Rob Banozic, Scott Holst, Phil Pomerantz, John Kissenger, Jose Ramos, Sonny Hays Eberts, Cesar Soria, Jeff DeBraal, Thom Barr, Robert Feinstein, Brandon Liesmeyer, Dave Connell, Russ George, Peter Raftos, John Shelton Agar, Dave Reenstra, Guy Falsetti, Bruce Bedell, Scott Cochran, Todd Jones, Ron Kusava, George Grella, Keith Jones, and the Yousehouse Irregulars (Kevin Valerien, John Slotwinski, Ken Dunn, John Appel, Bob Lyman, Tom Meier, Wayne Hadady, Gene Gibson, and Darren Emge.) Special Thanks to Alain Chabot and the many others who helped with this project.

PRINTING: Penn Photomounts

Blood Reef: Tarawa Beach Defense Record

CG: **Sheet #:**

GPP, CAPP, and FPP							
Type	#	Cost	Area[1]	Type	#	Cost	Area[1]

Leader Record			
DRM[2]	Type	DRM[2]	Type

[1] Red One (R1), Red Two (R2), Red Three (R3), Green (G), Island Command (IC), Black One (B1), or Black Two (B2)

[2] See Applicable CG ISSR

Japanese Retained MMC Record (15.608)

Area/ Location	E 4[2]-4-8	E 3[2]-4-8	E 2-3-8	1 4[1]-4-7	1 3[1]-4-7	1 2-3-7	2 3-4-7	2 2-3-7	2 1-3-7	C 3-3-6	C 2-2-6	C 1-2-6	2-2-8	1-2-8	1-2-7

Avalon Hill grants permission to photocopy this sheet for personal use.

Blood Reef: Tarawa Landing Schedule Record

(15.4, SSR CG 2.2)

CG:

Wave	CG Date	Entry Turn	Formation 1	Attachments (see Formation Table Notes)	Formation 2	Attachments (see Formation Table Notes)

Leader Record			
Formation	Leaders	Formation	Leaders

FORMATION TABLE

2nd Marine Division

	BLT #1 3rd Battalion, 2nd Marines	BLT #2 2nd Battalion, 2nd Marines
F1	HQ Company[a][l]*	HQ Company[a][m]*
F2	Rifle Company[b]	Rifle Company[b]
F3	Rifle Company[b]	Rifle Company[b]
F4	Rifle Company[b]	Rifle Company[b]
F5	HW Company[c]**	HW Company[c]**
F6	Engineer Platoon[d]	Engineer Platoon[d]
F7	AT Section (Division)[e]	AT Section (Division)[e]
F8	Artillery Battery[f]	Artillery Battery[f]
F9	AT Section (Regiment)[g]	AT Section (Regiment)[g]
F10	Light Tank Platoon[h]	Light Tank Platoon[h]
F11	Medium Tank Platoon[i]	Medium Tank Platoon[i]
F12	Seabee Platoon[j]	Seabee Platoon[j]
Special: Scout Sniper Platoon***[k]		

	BLT #5 1st Battalion, 6th Marines	BLT #6 2nd Battalion, 6th Marines
F1	HQ Company[a][l]*	HQ Company[a][m]*
F2	Rifle Company[b]	Rifle Company[b]
F3	Rifle Company[b]	Rifle Company[b]
F4	Rifle Company[b]	Rifle Company[b]
F5	HW Company[c]**	HW Company[c]**
F6	Artillery Battery[f]	Engineer Platoon[d]

	BLT #3 2nd Battalion, 8th Marines	BLT #4 1st Battalion, 8th Marines
F1	HQ Company[a]*	HQ Company[a]*
F2	Rifle Company[b]	Rifle Company[b]
F3	Rifle Company[b]	Rifle Company[b]
F4	Rifle Company[b]	Rifle Company[b]
F5	HW Company[c]**	HW Company[c]**
F6	Engineer Platoon[d]	
F7	AT Section (Division)[e]	
F8	Artillery Battery[f]	
F9	AT Section (Regiment)[g]	
F10	Light Tank Platoon[h]	
F11	Seabee Platoon[j]	

FORMATION TABLE NOTES

* Units may be attached to any other Formation in its BLT [CG2.3].

** Each MG Platoon (along with ≤ 1 leader) of this Formation may be attached to a Rifle Company Formation in its BLT.

*** May be attached to any other Formation in *any* BLT.

[a] 4x Leader, 2x SFCP

[b] 9x 6-6-8, 6x 2-4-8, 4x Leader, 3x dmMMG, 3x dm60mm MTR

[c] 3x Leader, 3x MG Platoon [3x 2-4-8, 2-2-8 crew, 3x dmMMG, dmHMG(.50-cal.)], 4x 2-2-8 crew, 4x dm81mm MTR

[d] 8x 7-6-8, 3x Leader, 8x DC, 3x FT

[e] 3x Pathfinders (1.), 3x M3 GMC

[f] 3x 2-2-8 crew, 3x M1A1 75* ART

[g] 3x 2-2-8 crew, 3x M3A1 37LL AT (includes three Jeeps [unarmed] if it enters at the Z33 pier Location)

[h] 6x Pathfinders (1.), 6x M3A1, 2x A.L.

[i] 7x Pathfinders (1.), 7x M4A2, 3x A.L.

[j] 3x Pathfinders (1.), 3x armored Bulldozer

[k] 10-3, 3x 7-6-8, 3x DC, FT

[l] First LD DR receives a -2 DRM.

[m] First LD DR receives a -3 DRM.

Avalon Hill grants permission to photocopy this sheet for personal use.

Blood Reef: Tarawa Miscellaneous Status Record

CG: **Side:** **Balance:**

CG Date	Night Scen.?	FPP Available	Setup First	Move First	EC	Wind Force	Night Banzai Attempted?	Night Banzai Successful	SAN	CG Scenario Win?	Cum. CVP.

Retained Unit, HIP, and Fortification Record

Tetrahedrons			HIP			Misc. Fortifications						Retained Units (15.608)				
Hex	Wire?	Mines	Hex	Units	CA	Hex	Type	CA	Hex	Type	CA	Hex	Units	CA	Hex	Units	CA

INDEX & GLOSSARY:

When numerous references are given for a single entry, a brief parenthetical description is also listed for the secondary entries. Most terms which have a common abbreviation are listed in full only under the abbreviation, but all references refer to the main rule.

FORMAT: "Entry" "(any spelled out version/description)": "main rule #" "[other applications of entry:]"
Some Historical ASL (HASL) references will be to Campaign Game (CG) special rules (e.g., QCG14) or to SSRs (e.g., SSR PB19 or KGP SSR2).
Terms and Definitions for Solitaire ASL are given at the beginning of Chapter S.

A

a: amphibious

(a) (American manufacture counter abbreviation): D2.5, F.9

A# (APCR Depletion Number; the number is the Depletion Number, and the superscript following it indicates the first year it applies and a letter indicates the month of that year [EX: A superscript of "4" means the vehicle/ordnance has that ammo starting in 1944]): (see also APCR) C8.1-.2

AA Fire: E7.5 [Caves NA: G11.83]

AA Gun: C2.2 [Gun Elevation: C2.6] [Gun Type: C2.22]

AA Mode: E7.5

AAMG (Anti-Aircraft Machine Gun): D1.83 [CC: A11.62] [fired by Heroic Rider: A15.23] [Repair: D3.7] [Scrounging: D10.51]

A-B Mines (Anti-Boat Mines): G14.53

Abandonment, SW: A4.43 [Captured: A20.21] [Surrender: A20.24]

Abandonment, Vehicle: D5.4 [Capture: A21.2][in PB: QCG8; QCG9][in PB,German crews may not voluntarily Abandon non-Immobilized vehicles: SSR PB16] [in RB, Non-captured Mobile non-halftrack AFV may not be voluntarily Abandoned: RB OCG16] [RePh: P8.6145, Q9.61423, R9.61422, T15.6135] [Shock vs: C7.42] [Unprotected Crews: D5.311]

Abrupt Elevation Changes: B10.5 [HD NA: D4.222] [Wadis: F5.12]

AC: Armored Car

Accessible (an adjacent Location which a hypothetical Infantry unit could—ignoring any enemy presence—advance into under normal APh conditions): [Caves: G11.6]

Acquired Target: C6.5 [Automatic Fire Action: S6.314] [vs Caves: G11.832] [Deliberate Immobilization NA: C5.71] [Night NA unless Illuminated: E1.74]

Adj: counter abbreviation for Adjacent

adjacent (hexes are considered adjacent if they share a common hexside): A.8

ADJACENT (Locations [and units in them] are considered ADJACENT if any Infantry unit in one Location could conceivably—ignoring any enemy presence—advance into the other during the APh and a LOS exists between the two Locations, excluding SMOKE Hindrance [B.10] and NVR [E1.101] as factors): A.8 [Building hexes: B23.25] [Caves: G11.6] [DM Cause: A10.62] [NA Examples: A6.8]

Adv: counter abbreviation for Advance

Advance: A4.7

Advance Fire Phase: (see AFPh) A3.5

Advance Phase: (see APh) A4.7

Advance/Move: (see Move/Advance) A.3

Advanced Sequence of Play (ASOP): ASOP Divider

Aerial AF: C7.12 [HD NA: D4.2] [Underbelly Hit: D4.3]

Aerial Attack (originating from an aircraft): E7 [Aerial AF: C7.12] [vs Cave: G11.86] [vs Column: E11.533] [Dust: F11.793] [Heat Haze: F11.622] [vs HD: D4.2] [Jungle: G2.213] [vs LC: G12.66] [vs AFV on LC: G12.6711] [LOS Hindrances: E.6] [Partial Orchard: Q2.5] [Range: E.5] [RB Roofless Factories: O5.47] [Sighting TC in Debris: O1.7] [Starshell NA: E1.921] [TK Case B: C7.22]

Aerial Combat: E7.22

Aerial LOS: E7.25 [BRT Palm Trees: T4.1] [Hindrances: E.6] [Paratroops: E9.31]

Aerial Observation: E7.6

Aerial Range: E.5

AF (Armor Factor; appropriate values are 0, 1, 2, 3, 4, 6, 8, 11, 14, 18, 26 or ★ in the case of unarmored vehicles): D1.6 [Aerial AF: C7.12] [vs A-T Mines: B28.52] [CC NA: A11.612] [achieving Final TK#: C7.11] [vs Minefield: B28.42] [vs OBA: C1.55]

AFPh (Advancing Fire Phase): A3.5

AFPh Fire (half FP for non-ordnance weapons or To Hit Case B/C for ordnance): A7.24 [Assault Fire: A7.36] [Case B TH: C5.2] [Case C TH: C5.3] [ENEMY FG: S8.52] [Glider Passengers: E8.4] [Paratroops NA: E9.5]

AFPh SW/Gun Fire Limits: A4.41, C5.2 [Bounding (First) Fire: D3.31] [MG: A9.2] [Moved Guns: C2.8]

AFV (Armored Fighting Vehicle): (see Partially Armored Vehicle) D1.2 [Aerial vs: E7.41-.43] [Combat: D3] [Japanese DYO: G1.661] [ENEMY Action DR: S6.13] [FFE vs: C1.55] [in PB, Freedom of Movement: QCG4] [vs Huts: G5.4] [Infantry Advance vs AFV: A4.71] [TB in Minefield: B28.61] [Panic Action: S6.21] [Radioless: D14] [RePh: O11.6131, P8.6206] [S? Activation: S5.71] [Smoke Dispensers: D13, F.10] [as Unarmored (vs mines): B28.42, B28.52]

AFV Destruction Table: C7.7

AFV/Wreck LOS Hindrance: D9.4 [Deirs: F4.51] [Hillock: F6.52] [onboard LC: G12.43]

AFV/Wreck TEM: D9.3 [IN a Rice Paddy: G8.31] [Hillock: F6.52]

AG: Assault Gun

Aground: G12.21 [Bog for LC: G12.21] [Heavy Surf: G13.446]

Air Burst: B13.3 [Entrenchments: B27.3] [Residual FP: A8.26] [Towers: B34.31] [WP: A24.31]

Air Drop: E9.1

Air Support: E7, [BRT: TCG6] [Chinese DYO: G18.83] [ENEMY: S8.9] [cannot be used vs any Location in Fog: E3.313] [in RB, German Air Support is always a Stuka M42: SSR RB9] [Japanese DYO: G1.6621] [in KGP, NA if Mist Density > Light, Night, or Overcast: SSR KGP3] [Napalm: G17.4] [Night NA: E7.2] [Overcast NA: E3.55] [during Seaborne Assault/Evacuation: G14.34] [Seaborne Assault DYO: G14.262] [Tarawa Naval Gunfire: TCG3.3]

All MP/MF Expenditure: D2.7

Allied Minors: A25.9

Allied Troops: A10.7

Alpine Hill Option: B10.211

Alternate Hex Grain (any string of connected hexes in which a straight line drawn between the first and last center dots lies along the hexspine of the first hex): A9.221 [Barrage: E12.11] [Human Wave: A25.231]

© 2000 Multi-Man Publishing, LLC

INDEX

Alternate Terrain Types: F13

Ambush: A11.4 [attacks first in CC: A11.32] [ATTACKER adds +1 drm to Ambush dr in jungle, kunai, or bamboo Location: G.6] [Banks: G8.212] [keeping "?" during CC: A12.14] [Dummies are eliminated BEFORE the Ambush dr, and do not qualify for the -2 drm: ASOP 8.11B] [Hand-to-Hand CC: J2.31] [Night: E1.77] [Panic Action: S6.213] [Panjis: G9.21] [in Rubble: SSR RB8] [Street Fighting: A11.8] [T-H Heroes are created after Ambush determination: G1.421]

American: A25.3 [Early Army: G17.2] [OBA Accuracy: C1.3] [Paramarine: G17.111] [Raider: G17.111] [Rifle Company: S18.5] [U.S. Marine Corps: G17.1]

Ammo Dump: E10.6

Ammo Portage: E10.12

Ammo PP Reduction: C10.13 [Rider PP NA: D6.2]

Ammo Supply: E10.12

Ammo Type TH Modifications: C4

Ammo Vehicles: E10 [not a Gunflash: E1.89]

Ammunition: C8 [German in KGP: P8.618] [Plentiful/Scarce: C1.211]

Ammunition Depletion: C8.9, D3.71 *[EXC 28LL, 40LL: C4.3, C7.32]* [Replenishment: E10.31]

Ammunition DR: E10.3

Ammunition Shortage: A19.131 [Battery Access (Scarce): C1.211] [British in ABtF: RCG17] [Captured SW: A21.11] [Fire Lane NA] [German in KGP: P8.618] [RePh: R9.6201] [Replenishment: E10.31] [Residual FP: A8.221] [WW: RCG19]

Amphibians (any vehicle having a printed amphibious-MP superscript): D16, G13.401 [Drift: B21.121, G13.734] [Marsh: B16.42] [MP Allotment: D1.1] [Piers: G13.731] [Pond hexside: B21.13] [Routing onto: G14.41] [Swamp: G7.3] [Watercraft PRC: G14.23-.31] [Waterproofed: G13.4221] [Wire: G14.52]

Animal Drawn Transport: D.2, D12

Animal Pack: G10

Anti-Tank Ditch: (see A-T Ditches) B27.56

Anti-Tank Gun: (see AT Gun) C2.2

Anti-Tank Magnetic Mine: (see ATMM) C13.7

Anti-Tank Mines: (see A-T Mines) B28.5-.53

Anti-Tank Rifle: (see ATR) C13.2

Anti-Tank Set Demolition Charge: (see A-T Set DC)

ANZAC (Australian and New Zealand Army Corps): A25.44 [Stealthy: A11.17]

AP# (AP Limited Storage; the number is the Depletion Number, and the superscript following it indicates the first year it applies [EX: A superscript of "4" means the vehicle/ordnance has that ammo starting in 1944]): C8.8

AP (Armor Piercing): [vs Guns: C11.52] [HE Equivalency & Residual FP NA: C8.31] [Limited Stowage: C8.8] [vs Pillbox: B30.35] [To Kill Table: C7.31]

A-P Mines (Anti-Personnel Mines): B28 [Beach: G14.54]

APC: Armored Personnel Carrier

APCR (Armor Piercing Composite Rigid)/**APDS** (Armor Piercing Discarding Sabot): C8.1-.2 *[EXC German 28LL, 40LL: C4.3, C7.32]* [vs Guns: C11.52] [HE Equivalency: C8.31] [TH# Modification: C4.3] [To Kill Table: C7.32] [Residual FP NA: C8.31]

APh (Advance Phase): A4.7 [Board Entry Delay: A2.5] [Boats: E5.22] [Building Levels: B23.422] [ENEMY Guard Automatic Action: S6.303] [Gliders: E8.4] [Human Wave: S4.322] [Paratroops NA: E9.6] [S?: S3.322] [Sequence of Play: A3.7] [dropping SW before CC: A4.43] [wearing Skis: E4.32]

AR (Artillery Request): C1.3

Area Fire: A7.23, C.4 [vs. AFV: A9.51] [Breach in Factory Walls: O5.331, R3.331] [Cellars: O6.4, R4.4] [Command Bunker: T6.1] [Crest Infantry firing through Non-Crest Status hexsides: B20.94] [vs Boats: E5.5-.51] [vs Dash: A4.63] [vs Fording: B21.42] [from Marsh: B16.32] [Ordnance: C.4] [Snap Shot: A8.15] [from Stream: B20.6]

Area Target Acquisition: C6.521

Area Target Type: C3.33-.332 [Bombs: E7.422] [Caves NA if LOS/LOF enters from outside CA: G11.831] [LC: G12.63] [Multiple Targets: C3.41]

Arid Climatic Conditions: F11

Arid Land: F11.2

Armed (any Personnel unit is Armed unless currently represented by an Unarmed counter (A20.54), as is any non-Abandoned vehicle with an Inherent Crew): (see also Unarmed)

Armor Factor: (see AF) D1.6

Armor Leader: D3.4-.44 [Command Influence Range: S16.4] [DYO: H1.43] [Japanese become an Infantry leader: G1.411] [Mandatory Leadership: A10.72] [Recall: D5.341] [RePh: O11.6207, P8.206, Q9.6183, R9.6183]

Armor Withdrawal: [RePh: O11.614]

Armored Assault: D9.31 [NA with Dash: A4.63] [Pathfinders: T1.2]

Armored Cupola: (see Dug-In Tank) D9.5 [Betio Gun Turrets: T8.2]

Armored Halftracks: (see Halftracks) D6.6

Arnhem Bridge: R1

ART (Artillery): C2.2 [Gun Type: C2.22]

Artillery Request: (see AR) C1.3

Artillery Strike: S8.7

Artificial Terrain (AFV, Roadblock, SMOKE, wreck): B.9

ASAP (As Soon As Possible): G14.234

ASL: Advanced Squad Leader

ASOP (Advanced Sequence Of Play): ASOP Divider

Aspect (Location of a hit vs a vehicular target broken down between turret/upper-superstructure and hull): C1.55, C3.9, C7.11, D1.2, D1.22, D1.6, D5.311

Assault Boats: E5.11

Assault Engineers: H1.22 [ABtF Unit Replacement: R6.1] [+1 CCV: A11.5] [Marines in BRT: SSR9] [+2 Smoke Exponent: A1.21, A24.1]

Assault Fire: A7.36 [5-4-8 German paratrooper in its pre-armed 2-2-8 state NA: E9.7] [SS in 1944-45: A25.11]

Assault Movement: A4.61, S6.221 [ENEMY Guard Automatic Action: S6.303] [Human Wave NA: A25.232] [entering IP: S6.3121] [S? NA: S3.321] [Search NA: A12.152] [Wire: B26.4]

Assault Wave: T15.2 [Marine Unit Organization: TCG2.3]

Assembly, SW: A9.8

A-T: Anti-Tank

A-T Ditches: B27.56 [in RB Paved Road with Shellholes: SSR RB5]

© 2000 Multi-Man Publishing, LLC

INDEX

A-T Mines (Anti-Tank Mines): B28.5-.53 [Beach/OCEAN: G14.53] [Bridges: B6.6] [Unhidden: B28.53]

A-T Set DC: G1.6121

AT Gun (Anti-Tank Gun): C2.2 [can occupy building/rubble if not a large target: C2.7] [Gun Type: C2.22]

ATMM (Anti-Tank Magnetic Mine): C13.7 [in RB, available to elite German Infantry: SSR RB13] [in PB, Gammon Bombs: SSR PB15] [Gunflashes: E1.85] [T-H Heroes: G1.4231]

ATR (Anti-Tank Rifle): C13.2 [Field of Fire: A9.21] [vs Gun: C11.52] [HE Equivalency: C8.31] [Japanese Squad/HS use: G1.611] [OVR FP NA: D7.11] [SW Team fire without non-qualified use penalty: S17.141]

Attack Break: G1.12

Attack DRM: A.5

ATTACKER (the player whose Player Turn is currently being played): A.13

Availability Table: [DYO: H1.3]

Avenue of Approach: E8.2

AVRE (Armored Vehicle, Royal Engineers): (see British Vehicle Note 37) [Seawall Breach: G13.624] [Seawall Fascine: G13.625]

Axis Minors: A25.8 [Berserk EXC: A15.1] [Escape NA unless Abandoned *(EXC Hungarians in Hungary)*: A20.55]

Axis Vehicles: [pre-10/42 in North Africa: D2.52] [Extreme Winter: E3.744]

B

B: [Brush overlay]

B# (Breakdown Number; [weapon is repairable]; If *italicized* [circled on counter], the vehicle has a Low Ammo B#, if **bold** [red on counter], the reference is to secondary weapon (FT or dual MA Vehicle) not necessarily the MA): A9.7, D3.7 [Aerial MG: E7.41] [Ammo Shortage: A19.131] [Captured: A21.11, C5.8] [Extreme Winter: E3.741] [Guns: C2.28] [Inexperienced: A19.32] [Intensive Fire: C5.62] [Low Ammo B#: D3.71] [Non-qualified use: A21.13] [Sustained Fire: A9.3] [Vehicular: D3.7] [X#: A.11]

Backblast: C13.8 [Huts: G5.62] [RCL: C12.3-.4]

Bailing Out: D6.24 [Bypass: D6.5] [Cavalry: A13.51] [Japanese: G1.13] [Motorcyclists: D15.53] [due to Terrain: D6.21]

Balance: A26.4

Bamboo: G3 [Fortifications, Fire Groups, Detection, Recovery, Ambush: G.2-G.6]

Bangalore Torpedo: B26.51

Banks: G8.21

Banzai Charge: G1.5 [Banzai Night Attack Decision: T15.616, T15.6203] [in BRT: TCG9, TCG10] [mandatory for DC Hero: G1.424] [Human Wave: A25.23] [T-H Heroes: G1.423]

Barbed Wire Fences: P3, Q7

Barrage: E12

Barrel Length: C4.1

Base Level (normally the lowest level Location other than cellar/sewer/tunnel in a hex; however, if the lowest level Location in building hex does not allow VBM along at least one hexside of that hex, the Base Level is that of the highest building level in that hex [EX: The Base Level of 20C7 is $2^1/_2$; that of 20D7 is 0]): C1.32

Base NVR (Base Night Visibility Range): (see NVR) E1.1

Battalion Landing Team: (see BLT) T15.2

Battalion Mortar: C1.22

Battery Access: C1.21

Battle Hardening: A15.3 [Battlefield Integrity: A16.3] [Panic Action: S6.211] [RePh: O11.6112-.6114, P8.6113-.6115, Q9.6112-.6113, R9.6112-.6113, T15.6113-.6114] [SASL Campaign: S17.73-.74]

Battlefield Integrity: A16 [Japanese: G1.622] [NA in SASL: Chapter S Introduction] [Seaborne Assaults NA: G14.24] [Prisoner Rejection: A20.3]

BAZ (Bazooka): C13.4 [Desperation: C13.81] [HE Equivalency: C8.31] [Height Restrictions: C13.8] [S? Activation in non-factory building/pillbox: S5.754] [SW Team fire without non-qualified use penalty: S17.141]

Be: Beach overlay

Beach: G13 [Be: Beach Overlay] [Pathfinders Eliminated: T1.3]

Beach Defense Record: T15.2

Beach Definitions: T15.2

Beach-Hinterland Hexside: G13.2

Beach Obstacles (mines, Panjis, tetrahedrons, wire): G14.5

Beach-OCEAN Hexside: G13.2

Beach Setup Area: T15.2

Beach Slope: G13.2 [BRT: SSR1] [DYO: G13.92]

Beach Width: [DYO: G13.93]

Beaching: E5.23 [Heavy Surf: G13.442] [LC: G12.3] [Loading: E5.21]

Bedouin Camp (Overlay X3): F12.45

Berserk: A15.4 [Automatic Action: S6.301] [Boat Entry NA: E5.54] [Cave: G11.97] [CMD DR NA: S16.32] [Commissar: A25.223] [Concealment NA: A12.12-.14] [Cowering NA: A7.9] [multi-Location FG participation NA: A7.54] [Fortified Building: B23.922] [Hand-to-Hand CC: J2.31] [Heat of Battle NA: A15.1] [Human Wave NA: A15.1] [Inexperienced: A19.31] [Massacre: A20.4] [MG vs: A9.4] [not subject to Straying: E1.533] [OCEAN: G13.491] [Opportunity Fire NA: A15.432] [Panic Action: S6.211] [Pillbox: B30.44] [Pin EXC: C13.31] [wearing Skis: E4.7] [WW: QCG17, RCG19]

Betio (Atoll on which BR:T occurs): [Piers: T9.2] [Port: T9] [Seawall: T10.1]

BF (counter abbreviation for Bow Flamethrower): (see FT) D3.6

Bicycles: D15.8 [Barbed-Wire Fences NA: P3.2, Q7.2] [DYO: H1.45] [Panji: G9.422]

Black Beach (Black Beach One and Black Beach Two): T15.2

Blast Area: C1.32 [Barrage: E12.11] [Harassing Fire: C1.72] [NOBA: G14.65] [Straying: E1.53]

Blast Height (two levels higher than Base Level of hex): C1.32 [Correcting SR/FFE: C1.331]

Blaze (fully-developed Fire): (see Fire) B25.1 [Cellars: O6.5, R4.5] [Control Forfeiture: A26.13] [Debris NA: O1.1] [Falling Rubble vs: B24.6] [Gusts: B25.651] [Ground Snow/Deep Snow: E3.721] [Illumination: E1.94] [LC: G12.44, G12.601] [Napalm: G17.41] [Narrow Street: B31.126] [RePh: O11.609, P8.609, Q9.609, R9.609] [S? elimination: S3.31]

Blind Hex: A6.4 [Bocage: B9.52, B9.531] [Crest Line: B10.23]

Block: R9.2 [Block Control Forfeiture: R9.6051]

Block Locations: Chapter R Divider, R9.15

© 2000 Multi-Man Publishing, LLC

INDEX

Blockhouse: R5

BLT (Battalion Landing Team): TCG2.1, T15.2

BMG (Bow MG): D1.81 [CC NA: A11.61] [Scrounging: D10.51]

Bnd (F) F: counter abbreviation for Bounding (First) Fire

Boats: E5 [Crossing Frigid Stream: B20.7] [Drift: B21.121] [Heavy Surf: G13.4423] [Marsh NA: B16.42] [(un)Beaching: G13.4423]

Bocage: B9.5 [Aerial LOS: E7.25] [at Night, no extra MF: E1.51] [Night LV DRM NA: E1.7] [Underbelly Hit: D4.3]

Bog: D8.2-.4 [Aground-LC: G12.21] [Armor Leader: D3.44] [Barbed-Wire Fence: P3.3, Q7.3] [Bocage: B9.54] [Breach: B9.541] [Buildings: B23.41] [Bulldozer: B24.71] [Debris: O1.2] [Deep Snow: D8.23, E3.7332] [Drifts: E3.752] [ENEMY Vehicles: S9.36] [Factory: B23.742, R.3] [NA Ford: B20.82] [may cause Gap in Convoy: E11.21] [Graveyard: B18.41] [Irrigation Ditch: Q1.43] [Jungle: G2.211] [Marsh: B16.43] [Motorcycles NA: D15.47] [Mud: D8.23, E3.61] [Mudflat: B16.72] [Ocean Bog: T1.4, T2.3] [Railroad: B32.33] [RePh: O11.6131, P8.6044, Q9.6043, R9.6043, T15.6042] [Rice Paddies: G8.12] [Rubble: B24.121, B24.4] [S? when Activated has used entire MP: S5.712] [Sand: F7.31] [Soft Ground in PB: SSR PB5] [Stream: B20.46] [Swamp: G7.31] [Temporary Crew: A21.22] [Towers: B34.41] [VCA Change: C5.11] [Wadi: F5.21, F5.4251] [Wading: G13.4223] [Wire: B26.43] [Woods: B13.41-.42]

Bombardment: C1.8, J2.5 [Bombproof: T6.51] [BRT Sand: T3.2] [vs Cave: G11.841] [Command Bunker: T6.1] [DYO Cost: H1.53] [DYO purchase for Japanese: G1.662] [creates Flame or Shellholes: C1.823] [vs Huts: G5.32] [Island Command Bunker: T6.2] [Naval: G14.7] [Panji: G9.74] [Sand: F7.4] [Towers: B34.1]

Bombproof: T6.5 [BRT Sand: T3.2] [Passage: T6.4]

Bombs, Aerial: E7.42 [Heavy Payload: C.7] [Jettison: E7.225] [vs LC: G12.66] [vs Mines: B28.62] [Napalm: G17.41] [Shellhole Creation: B2.1] [vs Wire: B26.52]

Bonus Infantry: [DYO: H1.71-.73]

Booby Traps: B28.9 [in BRT: SSR BRT7] [Deactivation in RePh: O11.6123] [Motorcyclists NA: D15.54] [in RB: SSR RB15] [Search Casualties: A12.154] [Wading Infantry/Cavalry NA: G13.421]

Bore Sighting: C6.4 [NA in ABtF: SSR19] [NA in BRT: SSR6] [Fire Lane at Night: E1.71] [NA in KGP: PCG12] [NA in PB: SSR PB18] [NA in RB: OCG5] [RCL: C12.24] [Residual FP: A8.26] [Shallow Ocean: G13.45] [Underbelly Hit: D4.3]

Boulevards: B7 [Arnhem Bridge: R1.2] [Ramp: R2.4] [Wide City Boulevards: R7.1]

Bounding Fire (fire by a vehicle in the AFPh after movement to a new hex/use of VBM during the MPh used in place of—rather than in addition to—AFPh Fire): C5.3 [ENEMY Vehicles: S9.342]

Bounding First Fire (fire by a vehicle during its own MPh which enables a vehicle to both move and fire in the same phase): C5.13, C5.3-.33, D3.3 [Acquired Target NA: C6.55] [ENEMY Vehicles: S9.341]

Bow Flamethrower (BF): (see FT)

Bow MG: (see BMG) D1.81

BPV (Basic Point Value; the relative value of one unit or OBA battery for DYO/Battlefield Integrity purposes): [Battlefield Integrity: A16.1] [DVP: F.3] [Personnel: A1.4]

Bracketing: C6.52

Breach: B9.541, B23.711 [Banks: G8.8] [Barbed-Wire Fence: P3.21, Q7.21] [Bocage: B9.541] [RB Cellar: O6.11] [DC Hero: G1.4241] [Factory Interior Walls: O5.33, R3.33] [Fortified Building: B23.9221] [Panji: G9.731] [Rice Paddy: G8.8] [Rowhouse: B23.711] [Seawall: G13.624]

Breakdown: (see B#) A9.7 [Excessive speed: D2.5] [Mechanical reliability: D2.51]

Bren Carriers: (see Carriers) D6.8-.84

Brew Ups: D5.7

Bridge: B6 [Arnhem Bridge: R1] [Bombardment vs: C1.822] [Bridge counter is Inherent Terrain: B6.2] [in BRT: SSR BRT1] [Crest status NA: B20.9] [Demolition: A23.71] [Entrenchments NA: B27.1] [Falling Rubble: B24.121] [Gullies: B19.1, B19.3, B6.1] [Mapboard Selection and Features: S13.5-.6] [Railroad: B32.14] [Road Network Bridge: S13.2311] [Streams: B20.3] [VPO: S14.12]

Bridge Collapse: B6.42 [Falling Rubble: B24.121] [in PB, Pegasus Bridge is indestructible: SSR PB4]

Bridge Layer: British Vehicle Note 36

British: A25.4 [Free French: A25.53]

Broached Wreck: G13.4421

Broken Terrain: F13.1

Broken Units: A10.4 [Battle Hardening: A15.3] [Berserk: A15.4] [Boat Entry NA: E5.54] [Passengers BU: D6.61] [CC: A11.16] [CMD DR NA: S16.32] [Concealment NA: A12.12, A12.14] [Crest status: B20.96] [ELR Replacement NA: A19.1] [FFMO/FFNAM: A8.14] [Hero: A15.21] [Japanese MMC: G1.12-.13] [Map Exit: QCG15] [MG vs: A9.4] [Pin NA: A7.8 *(EXC Interdiction and Huts)*] [Retained: S17.31] [Riders Bail Out: D6.23-.24] [TI NA: A4.8] [Vehicles: A12.1] [Water Shortage: RCG21] [WW: QCG17, RCG19]

Brush: B12 [B: Brush overlay] [Path: B13.6]

BRT (Blood Reef: Tarawa): [BRT Ocean: T2.1] [BRT Palm Trees: T4.1] [BRT Sand: T3.1] [BRT Towers: T7.1]

BU (Buttoned Up): D5.2 [Amphibian: G14.31] [can change BU/CE status during MPh or APh: D5.33] [ENEMY Vehicles: S9.31] [MA Interdiction NA: A10.532] [OT AFV: D6.61] [Passengers on LC: G12.123] [Pinning: A7.82] [Secret Record: A12.2] [sN: D13.34] [Sighting TC: E7.43] [sM: D13.3] [TH Penalty: C5.9]

Buildings: B23 [Blaze during RePh: O11.6094, P8.6094, Q9.6094, R9.604, T15.6105] [Building-Orchard Hex: Q5.4] [Building-Palm: T4.3] [Building-Road Hex: Q5.5] [Cavalry: A13.3] [Control: A26.14] [Dust DLV: F11.792] [Entrenchments NA: B27.1] [Indirect Fire TEM: B23.32] [Minefields: B28.44] [Mortar Setup: B23.423, B23.85] [Motorcycle: D15.45] [Paratroopers landing: E9.4] [Rally DRM: A10.61] [S? Activation in a Fortification: S5.742] [Schuerzen Loss: D11.22] [Single Hex Two-Story Building: B31.3] [Single Story Buildings: J2.4] [TH vs Multi-Levels: C3.32-.33] [Towing NA into: C10.1, C10.4] [Weather: E3.8] [X: Building overlay]

Bulldozers: (see Dozers) B24.7-.71, G15

Bunkers: B30.8 [BRT Pillboxes: T6.32] [Command Bunker: T6.1] [Straying: E1.531]

Burma: [DYO Chinese vs Japanese: G18.81]

Burnable Terrain (bamboo, brush, buildings, cactus patch, dense jungle, grain (in-season), hut, kunai, light jungle, olive grove, orchard, paddy (in-season), palm trees, pier, rubble, vineyard, wooden bridge, woods): B25.1

© 2000 Multi-Man Publishing, LLC

Burning Wreck: (see Wreck Blaze) B25.14 [RePh: R9.6091]

Burnt-Out Wreck: [ABtF: SSR14] [BRT: SSR15] [in KGP, PB, and RB, cannot be Scrounged, set Ablaze, or removed from play as per D10.4: SSR KGP10, SSR PB 10, RB CG SSR 7] [in PB, any Vehicle that is Immobilized, Abandoned, all weapons are Disabled: QCG14]

Buttoned Up: (see BU) D5.2

Bypass, Infantry: A4.3 [Arnhem Bridge: R1.12] [Barbed-Wire Fence: P3.4, Q7.4] [Beach/Ocean overlay hexside NA: G13.81] [Building-Orchard Hex: Q5.41, Q5.43] [Building-Palm: T4.3] [Concealed enemy: A12.151] [Dense Jungle NA: G2.212] [NA through a Drift: E3.752] [Exit Playing Area: A2.6] [Factory Interior Wall: O5.32, R3.32] [Grid Coordinates: A2.2] [Horses/Animal-Drawn: D.2] [Panji NA: G9.46] [Railroad: B32.31] [Residual FP: A8.21] [Rout NA: A10.5] [Rowhouse: B23.71] [S? NA: S3.321] [Stream remnants NA: B20.1]

Bypass, Vehicular: (see VBM) D2.3

C

C# (Canister Depletion Number; the number is the Depletion Number, and the superscript following it indicates the first year it applies and a letter indicates the month of that year [EX: A superscript of "4" means the vehicle/ordnance has that ammo starting in 1944]): (see also Canister) C8.4

CA (Covered Arc; if used in reference to a vehicle, it refers to VCA/TCA): C3.2, J2.22 [Bocage: B9.531] [Bounding First Fire: C5.13] [Caves: G11.12] [Changes vs Dash NA: A4.63] [Changes for fire vs own hex: C5.51] [Changing TCA without fire: D3.12] [Changing without fire: C3.22, C10.22] [ENEMY Activation: S5.4] [ENEMY Vehicles: S9.34] [Firing Within: C3.21] [MG: A9.21] [Maintaining CA: D3.51] [Opportunity Fire: A7.25] [Pinned Gun: A7.81] [SW: A9.21] [TCA/VCA: D.4] [Vehicular: D3.1-.12]

Cactus Hedge: B9.7, F13.3

Cactus Patch: B14.7, F13.4

CAFP (Covered Arc Focal Point; the vertex of a hexside in front of a straddling VBM vehicle): D2.32

Caliber Size (CSize): C2.21

Campaign Exhaustion DRM: R9.2

Campaign Game: (see CG) O11.2, P8.2, Q9.2, R9.2, S17, T15.2

Campaign Purchase Points: (see CPP) O11.2, P8.2, Q9.2, R9.2

Campaign Roster Sheet: S17.15

Canal: B21.11

Canister: C8.4 [vs a Cave: G11.836] [Cowering NA: A7.9] [vs Pillbox: B30.112]

CAPP (Covered Arc Purchase Points): T15.2

Capture: A20.22 [+1 CC DRM NA vs non-elite Italian defenders: A25.63] [Japanese may attempt Hara-Kiri: G1.641]

Captured AFV: [CC: A11.52] [RePh: O11.6136]

Captured Equipment: A21 [Dozer: G15.27] [MG use at Night: E1.76] [Motorcycles NA: D15.7] [in PB, Ox and Bucks Captured Penalties NA: SSR PB14] [Penalties do not apply to Partisans using Allied SW/Guns: S12.211] [ROF: A21.12] [RePh: O11.6135, P8.6144, Q9.61422, R9.6143, T15.6134] [Repair NA: A9.72]

Carriers: D6.8-.84 [DYO: H1.43]

Casualty MC: A10.31 [Retained: S17.31] [WW: QCG17, RCG19]

Casualty Reduction (A combat result which eliminates a HS or crew, and wounds any SMC it afflicts. A squad is Reduced to a HS): A7.302 [Booby Trap: B28.9] [Casualty MC: A10.31] [CC: A11.11] [Crew Small Arms: A11.621] [Fate: A10.64] [Japanese: G1.14] [Interdiction: A10.53] [PF To Hit DR: C13.36] [Unarmed units Retained: S17.31]

Casualty Victory Points (CVP): (see VP) A26.2

Cavalry (Personnel on horseback—not those on Wagons): A13 [above a Bank counter: G8.2112] [Cavalry Wave: A25.23] [DEFENDER using TPBF: A13.351] [Heat of Battle NA: A15.1] [Irrigation Ditch: Q1.41] [Jungle: G2.4] [Mounted Firer: A13.4] [Night, considered Normal: E1.62] [Panjis: G9.422] [Stationary Bypass: D.2] [Swimming: E6.5] [Wave: A13.62] [in Wire: B26.42]

Cave: G11 [Entry: G11.7] [Elimination: G11.88] [Dozer vs: G15.22] [High Seawalls NA: G13.61]

Cave Complex: G11.2 [entry, advance, rout: G11.73] [Rice Paddy NA: G8.73]

Cave Complex Setup Sheet: (see CCSS) G11.32

CC (Close Combat): A11 [Armor Leader: D3.44] [ATMM: C13.7] [Berserk: A15.43] [units in Boats: E5.6] [Broken Units: A11.16] [BU: D5.2] [Bypass into "?": A12.151] [Capture Attempt: A20.22] [Cavalry: A13.61] [NA to/from Cave: G11.87] [CCT: A11.11] [CCV: A11.5] [CMG NA if restricted to VCA: D1.82] [Cowering NA: A7.9] [Crest: B20.94] [CX: A4.51] [Dare-Death Squads: G18.62] [ENEMY Advance: S11.4] [Field Promotion: A18.12] [Gammon Bombs: SSR PB15] [Gunflashes: E1.82] [Hand-to-Hand: J2.31] [Human Wave: A25.234-.235] [Infantry OVR: A4.152] [Japanese ATTACKER becomes Hand-to-Hand: G1.64] [vs LC NA: G12.7] [Narrow Street: B31.132] [Panic Action: S6.213] [Panjis: G9.21] [Pillbox: B30.6] [Pinned: A7.8] [Reaction Fire: D7.2] [wearing Skis: E4.5] [SW: A11.13] [T-H Heroes: G1.4231] [Unarmed Units: A20.54] [WW: QCG17, RCG19] [on Wire: B26.31]

CC Reaction Fire: D7.2 [Street Fighting: A11.8]

CCPh (Close Combat Phase): A3.8 [ENEMY Attacks: S11.5] [dropping SW before CC: A4.43]

CCSS (Cave Complex Setup Sheet): G11.32

CCT (Close Combat Table): (see CC) A11.11

CCV (Close Combat Value; CC Kill number vs vehicles [squad: 5, crew: 4, HS: 3, SMC: 2]): A11.5 [T-H Hero 5: G1.4231]

cdr: colored die roll

CE (Crew Exposed): D5.3-.342 [Air Bursts: B13.3] [Amphibian: G14.31] [Arnhem Bridge: R1.22] [can change BU/CE status during MPh or APh: D5.33] [ENEMY Vehicles: S9.31] [Halftrack Passengers: D9.1] [Passengers on LC: G12.123] [Secret Record: A12.2] [Sighting TC: E7.43]

CE DRM (Crew Exposed Dice Roll Modifier): D5.31, D9.1

Cellars (see RB Cellars): B23.41, O6, R4 [NA in BRT: SSR1] [Factory NA: B23.742] [in KGP, only multi-hex buildings have Cellars: SSR KGP8] [NA in Rice Paddy hex: G8.73] [Rubble NA: B24.4]

CG (Campaign Game): O11.2, P8.2, Q9.2, R9.2, S17, T15.2 [CG Date: P8.2, Q9.2, R9.2, T15.2] [CG Day: O11.2] [CG End: P8.2, Q9.2, R9.2, T15.2] [CG-LVP Total: P8.2] [CG Night Scenario: R9.2] [CG Roster: O11.2, P8.2, Q9.2, R9.14, R9.2] [CG-Scenario End: P8.2, Q9.2] [New CG Day: O11.6121]

CH (Critical Hit): C3.7 [Bombardment NA: C1.8] [Deliberate Immobilization NA: C5.72] [vs Gun: C11.4] [Harassing Fire: C3.75] [HD: C3.9] [Improbable Hit: C3.6] [Indirect Fire: C1.53] [LC: G12.64, G12.679] [Mortar: C9.5] [Multiple Hits: C3.8] [Pillbox: B30.113] [Rubble: C3.73] [WP: A24.31]

Charge (special cavalry attack): A13.6 [Woods-Road: B13.4]

Chinese: G18

© 2000 Multi-Man Publishing, LLC

INDEX

City Boulevards: B7

Civilian Interrogation: E2.4

Class, Personnel Types (E: Elite; 1: 1st Line; 2: 2nd Line; G/C: Green/Conscript): A1.25 [Panic Action: S6.21]

Clear (Weather): E3.2

Clearance (the act of removing rubble, mines, Palm Debris, Wire, roadblock, Set DC, Flame): B24.7 [Debris: O1.5] [Dozer: G15.2] [Drifts: E3.751] [Jungle: G2.7] [Labor Status: B24.8] [Narrow Street Roadblock: B31.1411] [Panji: G9.71] [Palm Debris: T4.22] [Printed Rubble: O3.2, T5.2] [Prisoners: A20.5] [Roadblock by HE: B29.5] [Wire by vehicles, DC, FFE: B26.51-.53]

Cliffs: B11 [Beach-Hinterland: G13.24] [Crest NA: B20.9] [HD NA: D4.222] [High Seawall: G13.61]

Climbing (the act of ascending or descending a Cliff hexside): B11.4 [place DC from above a Cave: G11.8331] [High Seawall: G13.61] [Heat of Battle NA: A15.1] [Mission End: S17.41] [Scaling Bridge & Buildings: B23.424]

Cloaking: E1.4 [ABtF: SSR2] [Air Drop: E9.1] [Boats: E5.123] [Caves: G11.75] [Gliders: E8.1] [Marine Cloaking: TCG5] [Seaborne Assaults: G14.23] [Sniper: E1.72]

Close Combat: (see CC) A11

Close Combat Phase: (see CCPh) A3.8

Close Defense Weapon System: (see sN) A11.622

Closed Topped: (see CT) D1.24

Cloud Cover: [DYO: E1.11]

CMG (Coaxial MG): D1.82 [AA use: C2.6] [Acquisition Loss: C6.5] [Acquired Target Automatic Fire Action: S6.314] [in Bypass: D2.321] [CC: A11.62] [Mandatory Fire Direction NA: A9.4] [Scrounging: D10.51] [Stabilized: D11.13]

Collapse: B25.66 [Hut: G5.5] [Ice: B21.6] [RB Cellars: O6.62]

Collateral Attack: D.8 [CH: C3.74] [vs LC: G12.67] [Near Miss halves Specific Collateral Attack: E7.421] [Residual FP NA: A8.22]

Column: E11.5 [Animal Pack: G10.5] [CMD DR for entire formation: S16.32] [FRIENDLY: S15.4] [Panji: G9.44]

Command Bunker: T6.1 [Island Command Bunker: T6.2] [Passage: T6.4]

Command Control: S16.1

Commando: H1.24 [ABtF: R6.31, R9.617] [Climbing: B11.433] [DYO: H1.24] [Gurkha: A25.43] [High Seawalls: G13.61] [Scaling: B23.424, R1.1] [Special Forces Integrity: S12.22] [Stealth: A11.18] [Unit Replacement: R6.31]

Commissar: A25.22 [Red Chinese: G18.31] [Disruption NA: A19.12] [Partisans: S12.211] [RB: OCG12] [RePh: O11.6206] [RtPh Surrender NA: A20.21]

Company Improvement: [SASL Mission End: S17.7]

Concealment: A12 [ABtF: RCG12] [Ambush: A11.4] [Banks NA: G8.2111] [Bocage: B9.55] [Caves: G11.812] [CC: A11.14-.15, A11.19] [Column: E11.54] [voiding Dash: A4.63] [DLV: F11.601] [Debris: O1.1] [revealed in Interrogation: E2.21] [Japanese & Korean in BRT: TCG11] [Japanese receive a -2 drm to their Concealment dr: G1.63] [KGP Setup: PCG11] [Mandatory Fire Direction (MG): A9.4] [Night: E1.3] [Observer: C1.6] [Ocean NA unless Night: G13.4212] [Opportunity Fire: A7.25] [Panji NA: G9.53] [PB: QCG10] [Pillbox: B30.7] [RB: OCG15] [RCL: C12.22] [Residual FP: A8.224] [Rooftop: B23.82] [effects on Rout: A10.533] [S?: S3.1] [Scrub: F2.3] [Target Acquisition: C6.5, C6.521, C6.57] [TH DRM: C6.2] [T-H Hero creation attempt loss: G1.421] [Towers: B34.5] [Trench: B27.54] [Vehicular Target Size: D1.76] [Winter Camouflage: E3.712] [WP Loss: A24.31]

Concealment Loss: A12.14 [Column disbands: E11.54] [Freedom of Movement dr NA: E1.21] [Spotter NA: C9.3] [WP: A24.31]

Concealment Terrain (bamboo, bocage, broken ground, brush, building, cactus patch, cave, cave complex, dense jungle, grain [in-season], hut, kunai, light jungle, marsh, olive grove, orchard, paddy [in-season], palm debris, palm trees, rubble, scrub, swamp, vineyard, woods): A12.12 [Command Bunker Rooftop: T6.2] [Night "?"/HIP setup/loss purposes: E1.2, E1.31] [Bocage: B9.55] [Rooftops: B23.8] [Scrub: F2.3] [Towers: B34.5]

Concentration FFE (an OBA Fire Mission with a seven hex Blast Area *[EXC NOBA: G14.67] [EXC Rocket OBA: C1.9]*): C1.5

Conditional ROF: C2.5

Conscripts: (see Inexperienced Personnel) A19.2-.3 [Panic Action: S6.21]

Contact: (see Radio Contact) C1.2

Continuous Slope: B.5 [Caves: G11.51] [Fire Lane: A9.22] [Height Advantage: B1.14]

Control: A26.1 [in PB, Bridge Control: SSR PB6] [Cave: G11.94] [Pillbox: B30.91]

Control Markers: [RePh: O11.6052, P8.605]

Convoys: E11 [Armor Leader's Command Influence Range: S16.4] [CMD DR for entire formation: S16.32] [FRIENDLY: S15.4] [Vehicle Dust: F11.741]

Coral Soil: G13.82

Correcting Fire: C1.4 [Barrage: E12.4] [Creeping Barrage: E12.74] [ENEMY FFE: S8.74]

COT (Cost of Terrain): B.2

Counter: any of the die-cut square pieces of the game

Countermix (pieces provided in one game): [DYO purchasing limits: H1.11] [S? Activation: S5.7, S12.22] [S? Activation in Fortification: S5.7, S12.22]

Covered Arc: (see CA) C3.2

Covered Arc Focal Point: (see CAFP) D2.32

Covered Arc Purchase Points: (see CAPP) T15.2

Cowering: A7.9 [British Elite/1st Line NA: A25.45] [Fanatic NA: A10.8] [FT: A22.1] [Hero FG: A15.24] [Inexperienced Personnel: A19.33] [Residual FP NA: A8.224] [SMC SW Usage: A9.12]

Coy (Company): O11.2, Q9.2

CPP (Campaign Purchase Points): O11.2, P8.2, Q9.2, R9.2

CPP Entry Cost: Q9.2

CPP Replenishment: [RePh: P8.616, Q9.617, R9.616]

Crag: B17 [Entrenchments NA: B27.1]

Crash dr: E8.23 [Effect: E8.24] [Huts: G5.43] [OCEAN: G13.492] [Panjis: G9.47] [Rice Paddy: G8.22] [Swamp: G7.32] [Tetrahedrons: G14.51] [in PB, Wire drm: SSR PB20]

Creeping Barrage: E12.7 [DYO purchase for Japanese: G1.662]

Crest Line: B10.11 [Bypass: A4.34] [Elevated Road: B5.21] [Slope Hexside: P2.53, Q3.53] [Valley: B22.2]

Crest Status: B20.9 [Culvert Location NA: O7.4, P4.22] [ENEMY Movement in Depression: S9.28] [Indirect Fire vs: C1.52] [Leadership: A2.8] [OVR: D7.15] [Russian AFV: F5.427] [S? Setup: S4.14] [Setup: A2.9] [Stream Hex Terrain: B33.12] [Wadi, may be used by all types of Infantry, SW, vehicles, and Guns: F5.4]

Crew (Inf. Crew has a FP of 2, Vehicle Crew has a FP of 1): (see also Inherent Crew) A1.123, C2.1 [Automatic Action: S6.310] [DYO: H1.212, H1.3, H1.4] [ELR & Heat of Battle NA: A15.1,

© 2000 Multi-Man Publishing, LLC

A19.11] [Gun Movement: C10.111] [Japanese: G1.3] [LC: G12.112] [S? Activation: S5.711] [SW Team treated as HS: S17.14] [Temporary: A21.22]

Crew Exposed: (see CE) D5.3-.342

Crew Small Arms: A11.621

Critical Hit: (see CH) C3.7

CS# (Crew Survival Number; for all PRC: If **bold**ed [red on counter] the vehicle has a tendency to Brew Up, if italicized [in lower case (cs#) on counter], it applies to Passengers/Riders only): D5.6, D6.9 [Brew Up: D5.7]

cs# (Crew Survival Number for Passengers/Riders only): D5.6, D6.9

CSize (Caliber Size): (see Gun Caliber Size) C2.21

CT (Closed Topped; a fully-armored AFV which is not OT): D1.24 [BU/CE Firing Restrictions: D5.2-.3] [HD Maneuver Attempt by CT Russian AFV: D4.22]

Culin Hedgerow Device: B9.541 [Underbelly Hit NA: D4.34]

Culvert: O7 [in RB, a Roadblock may be set up IN a gully or Culvert hexside: SSR RB5] [Stream Culvert: P4.2]

Cumulative Terrain Effects: A2.4

Cupola: (see Armored Cupola) D9.5

Current: B21.121

Current-LVP Total: P8.2

CVP (Casualty Victory Points): (see VP) A26.2

CX (Counter Exhaustion): A4.51 [Advance into Difficult Terrain: A4.72] [Assault Movement NA: A4.61] [Barbed-Wire Fences NA: P3.2, Q7.2] [Berserk NA: A15.42] [CC: A4.51] [Climbing: B11.434] [CX DRM NA to Cavalry Charge: A13.6] [Deep Stream Entry: B20.43] [Gallop: A13.36, D12.4] [Interdiction NA: A10.532] [S? NA: S3.321] [Wire NA: B26.46]

Cycle (a motorcycle without a sidecar): D15.1 [above a Bank counter: G8.2112]

D

D: [Deir overlay]

D# (APDS Depletion Number; the number is the Depletion Number, and the superscript following it indicates the first year it applies and a letter indicates the month of that year [EX: A superscript of "4" means the vehicle/ordnance has that ammo starting in 1944]): (see also APDS) C8.1-.2

Daisy Chain: B28.531 [Japanese may convert all A-T mine factors to Daisy Chains: G1.613]

Damage Point for LC: (see DP) G12.601, G12.69

Damaged Aircraft: E7.226 [Glider: E8.21, E8.41]

Dare-Death Squads: G18.6

Dash: A4.63 [Column NA: E11.52] [Human Wave NA: A25.232] [Narrow Streets in ABtF: SSR5] [NA in Palm Debris: T4.21] [Road-Negating Terrain: R.1] [not Wide City Boulevards: R7.1]

DASL: (see Deluxe ASL) Chapter J

Date: S17.21

Dawn: QCG18 [ABtF: RCG20]

DB (Dive Bomber): E7.1

DC (Demolition Charge): (see also Placed DC, Thrown DC, Set DC) A23 [vs AFV: C7.346] [Assault Movement: A4.61] [Berserk: A15.431] [Breach rowhouse: B23.711] [Set DC vs bridge: B6.33] [vs Caves: G11.833] [Cowering NA: A7.9] [from Crest: B20.95] [Fortified Buildings: B23.921, B23.9221] [vs Gun: C11.4, C11.6] [Gunflashes: E1.85] [Japanese may Place/Throw DC into their own Location: G1.612] [LC NA: G12.611] [from marsh hex: B16.32] [Panji: G9.211] [vs/from Pillbox: B30.31, 30.2, 30.92] [Pinned Attacker NA: A7.81] [RePh: O11.6134, T15.6133] [vs Roadblock: B29.5, 31.1411] [removal of Set DC: B24.75] [Set vs bridge: B6.33] [vs sewer location: B8.5] [from IN stream: B20.6] [Thrown from: (Halftrack: D6.63) (Sidecar: D15.6)] [Wall/hedge TEM: B9.3] [vs Wire: B26.51] [NA from on wire: B26.45]

DC Hero: G1.424

DD Tanks: D16, British Vehicle Note 74, U.S. Vehicle Note 48

Debris: O1 [Factory: O5.41]

Deep Snow: E3.73 [A-P Minefield: B28.3] [A-T Minefield: B28.51] [Bog: D8.23] [Brush: B12.6] [Irrigation Ditch: Q1.5] [Marsh: B16.8] [Smoke NA: C1.71] [cumulative with other TEM DRM: E3.62]

Deep Water: G13.4

DEFENDER (the player whose Player Turn is not presently being played): A.13

Defensive Fire: (see DF) A8

Defensive Fire Phase: (see DFPh) A3.4

Defensive First Fire: (see First Fire) A8.1

Deirs: F4 [D: Deir overlay] [Indirect Fire vs: C1.52]

Delay: D2.17

Deliberate Immobilization Attempt: C5.7 [ENEMY: S8.24] [Specific Collateral Attack NA: D.8A]

Deluxe ASL (DASL): Chapter J [Vehicle size: D1] [Wall Advantage: B9.321]

Demolition: A23.7

Demolition Charge: (see DC) A23

Dense Jungle: G2.2

Depleted: O11.2, P8.2, Q9.2, R9.2

Depletion Numbers: C8.9 [28LL, 40LL NA: C4.3] [Ammunition Shortage: A19.131] [Elite: C8.2]

Deployment: A1.31 [Automatic (Guard/Prisoner/Scrounging Wrecks): A20.5, A21.22, D10.5] [G.M.D. Chinese NA: G18.2] [Directly Attached Squad: S17.131] [ENEMY Guard Automatic Action: S6.303] [Finns: A25.7] [Italian NA unless Elite: A25.61] [Japanese: G1.16] [Offboard: A2.52] [Partisans NA: S12.211] [Russian NA: A25.2] [S? HS Activation becomes Squad if that Nationality cannot Deploy: S5.72] [Seaborne Assault: G14.311] [Setup: A2.9]

Depression Cliff: B11.1-.21 [Crest status NA: B20.9]

Depression Hexside: a hexside along which a Depression is drawn

Depressions (Gully, Stream, Sunken Road): A6.3 [Caves: G11.1] [ENEMY in APh: S11.3] [ENEMY Movement: S9.28] [Hill Depressions: B19.5] [IN/INTO: A.6] [Leadership: A2.8] [Sunken Railroad: B32.1] [Woods: B13.2]

Depth: B21.122

Desert Boards: F.1 [board 25 Hills: F.2A]

Desert Low Visibility: (see DLV) F11.6

Desert Overlays: F12

Desert Victory Points: (see DVP) F.3

Desperation: C13.81

Desperation Morale: (see DM) A10.62

Destruction, Self: (see Self Destruction) [SW: A9.73] [Vehicles: D5.411]

© 2000 Multi-Man Publishing, LLC

Destruction, SW: A9.73-.74

Detection: A12.15 [NA in jungle, kunai, or bamboo Location against hidden, Stealthy Infantry DEFENDERS: G.4] [units in a Column: E11.522]

DF (Defensive Fire): A8 [ENEMY: S8.6] [ENEMY Action DR: S6.12] [ENEMY FG: S8.53]

DFPh (Defensive Fire Phase): A3.4 [Creeping Barrage: E12.74] [Gliders: E8.21] [Paratroops: E9.3]

Difficult Terrain (any hex which costs ≥ four MF or all of a unit's available non-Double Time MF allotment to enter in MPh): A4.72 [Bamboo: G3.2] [Cactus Hedge: B9.7]

Direct Fire (Any fire attack requiring a LOS from the firer which does not use Indirect Fire): C.1, C9.1 [Intervening Units: A6.6] [LC: G12.61-.62, G12.671]

Direct Hit (a KIA/K Final DR result of an effects DR of any hit vs a Gun): C11.4

Directing Fire: A7.53 [Intervening Units: A6.6] [Tarawa Naval Gunfire: TCG3.21]

Direction: [Human Wave: A25.231]

Direction, Random: B.8

Directly Attached: S17.131

Directional Aid Counter: Any counter depicting a hex with each hexside numbered from 1 to 6 to aid in assessing the direction from that point on the mapboard in accordance with a dr such as Sniper Target Selection, AR, SR, FFE

Disabled (Vehicular armament which has malfunctioned and cannot be repaired is marked with a Disabled counter): D3.7 [Abandoned: D6.631] [Scrounging NA: D10.5] [Secret Record: PB QCG9]

Disbandment, Column: E11.53

Disembarking: (see Unloading) D6.5

Dismantled: (see dm) A9.8

Dispersed Smoke: A24.5, A24.61, C8.51 [Breeze: B25.63] [MOL-Projector: C13.58] [Smoke Grenades NA: A24.11] [Vehicular Smoke Dispensers: D13.31-.34]

Disruption: A19.12 [Heat of Battle Surrender: A15.5] [Japanese NA: G1.62] [U.S. Marine NA: G17.1]

Dive Bomber: (see DB) E7.1

DLV (Desert Low Visibility): F11.6

DM (Desperation Morale): A10.62 [BU Halftrack: D6.66] *[EXC Commissar and Japanese leader: A25.222, G1.41]* [ENEMY Removal: S7.2] [Interdiction: A10.53] [blocked LOS NA: A6.11] [Self Rally: A18.11] [Sniper attacks Location: A14.3]

dm (Dismantled): A9.8 [Boats: E5.123] [Cloaked: E1.42] [76-82mm MTR Passenger PP Reduction: C10.13] [76-82mm MTR Rider PP Reduction: D6.2] [Animal Pack: G10.32] [SW setup: A2.52] [Unpossessed on Beach: SSR BRT13]

Dogfight (Aerial Combat): E7.22

Doubles (same number on each die of a DR): [Bombardment Casualty Reduction: C1.8] [Cowering: A7.9] [Multiple Hits: C3.8]

Double Break (an already broken unit that breaks again): A10.3, S17.31 [WW: QCG17]

Double-Crests: B10.52 [HD NA: D4.222] [Wadis: F5.12]

Double Time: (see also CX) A4.5-.51, S6.222 [ENEMY Guard Automatic Action: S6.303] [Manhandling: C10.3] [NA for Pathfinders: T1.2] [S? NA: S3.321] [Water Shortage: RCG21] [Wire NA: B26.46]

Downhill Movement: [Abrupt Elevation Change: A10.51] [Bicycles: D15.81] [Rain: E3.52] [Skis: E4.31] [Snow: E3.723]

Down-Slope: P2.2, Q3.2

Dozers: B24.7-.71, G15 [Bank: G8.8] [Bocage: B9.541] [Dense Jungle: G2.211] [Huts: G5.4] [Panji: G9.73]

DP (Damage Points for LC): G12.601, G12.69 [Area/OBA Target Type: G12.64] [Blaze: G12.68] [CH: G12.64] [Dud: G12.64] [Ordnance: G12.62]

DR (dice roll; a roll of two or more dice): A.1

dr (die roll; a roll of one die): A.1

Drained Rice Paddies: G8.11

Drift: [during Air Drop, DR (same as Random Location DR): E9.2] [in Heavy Surf: G13.444] [LC: G12.23] [Piers: G13.734] [River: B21.121] [Smoke: A24.61, B25.2] [Smoke Grenades NA: A24.11]

Drifts, Snow: E3.75

DRM (dice roll modifier): [Cumulative: A.17] [TH: C3.4, C5-6]

drm (die roll modifier): [Cumulative: A.17]

Drop Point: E9.12

Dropping SW: (see SW, Dropping) A4.43

Drowning: E6.21

Dud: C7.35

Dug-In Tank: D9.54 [in RB: O.7, O11.6194c]

Dummy (a "?" counter representing a fake, unknown unit): A12.1-.11 [CC: A11.19] [Minefields: A12.11] [vs OVR: A12.41] [RePh at night: QCG10] [Panjis: G9.4] [Scenario Defender at Night: E1.2]

Dummy Minefields: F.7B, P7.2

Dune Crest: F7.51 [Indirect Fire vs: C1.52]

Dusk: QCG18 [ABtF: RCG20]

Dust: F11.7 [sM: D13.32]

DVP (Desert Victory Points): F.3

dx: Overlay for DASL boards

DYO (Design Your Own): Chapter H [Animal Pack: G10.6] [Beaches: G13.9] [Caves: G11.99] [Chinese: G18.8] [Dozer: G15.3] [Free French: A25.57] [Japanese: G1.66] [LC: G12.9, G14.26] [Naval Bombardment: G14.74] [NOBA: G14.69] [Panjis: G9.13] [Sangar: F8.2] [Seaborne Assaults: G14.26] [U.S. Marines: G17.15]

E

E: [Escarpment overlay]

Early Morning: F11.611

Early U.S. Army: G17.2

EC (Environmental Conditions): B25.5 [Arid Land: F11.4] [Factories in RB: O5.44] [RePh: O11.618] [Tropical: G16.3] [always Wet in KGP and PB: SSR KGP2 and SSR PB3] [Snow (Falling/Ground) always Moist: E3.713, E3.72]

Ef: Effluent overlay

Effluent (Ef): G13.14

Elevated Railroads: (see ElRR) B32.1

Elevated Road: B5 [Entrenchments NA: B27.1]

Elevation Change: A4.133 [PB SSR PB1] [Vehicles: B10.4]

Elevation Effects: B9.33 [BU Halftrack: D6.61] [CE DRM: D5.31] [vs HD Amphibian: D16.3] [Maximum Gun Elevation/

© 2000 Multi-Man Publishing, LLC

Depression: C2.6] [PF/PSK/BAZ/US RCL: C13.8] [PIAT: C13.61] [Railroad: B32.32]

Eliminated: T15.2

Elimination: O11.2, P8.2, Q9.2, R9.2, S17.32 [Beach Obstacles: G14.56] [Cave: G11.88] [LC: G12.69] [Pathfinders Eliminated: T1.3] [RePh: P8.6095]

Elite: A1.25 [ABtF Special Ammunition Availability: SSR20] [AFV crew Morale: D5.1] [DYO Assault Engineer, Commando: H1.22] [Depletion Number increased by one: C8.2] [British Cowering NA: A7.9] [British Guardsmen, Gurkha, ANZAC, Canadian, and Free French/Polish forces: A25.4] [Class: A1.25] [Infantry Crew: A1.123] [Experience Level Rating: A19.1] [becomes Fanatic in Battle Hardening: A15.3] [German (Africa, 1942-43: F.6) (prior to 1944: A25.1) (SS: A25.11)] [Hungarians in Hungary: A25.8] [Italian can Deploy: A25.61] [Panic Action: S6.21] [Parachutes: E9.1] [Partisans NA: A25.24] [Prisoner gets +1 on Interrogation: E2.2] [Russian GUARDS: A25.2] [SMC: A1.11] [Skis: E4] [Special Forces Integrity: S12.22] [SS Chart Replacement: R6.2] [U.S. Marine: G17.1]

ELR (Experience Level Rating): A19.1 [BRT: TCG17] [Loss: A16.2] [Massacre: A20.4] [Night: E1.22] [in PB: SSR PB12] [Regaining: A16.3] [RePh: O11.617, PCG4, QCG3, R9.6202]

ElRR (Elevated Railroads): B32.1

Embankment Railroads: B32.1

EmRR (Embankment Railroads): B32.1

Emplaced Gun (Any Gun which has not been hooked up to a vehicle and has not been moved from its setup hex during the scenario *[EXC if it set up on a paved road]*. Such a Gun [and its manning Infantry] are entitled to a +2 Emplacement TEM): C11.2-.3 *[EXC Air Bursts: B13.3]* [Bamboo NA: G3.4] [BRT Sand: T3.2] [Concealment: A12.2, A12.34] [Desert: F.1A] [Gun Emplacements: T8.1] [Hidden Guns: A12.34] [not Rooftops: R.4] [S? Activation in a Hold Attitude is automatically Emplaced: S5.762] [Sand: F7.41] [Scrub: F2.2]

En Portee (a gun carried as Passenger PP): C10.5

Encirclement: A7.7 [Cellars NA: O6.7, R4.7] [Japanese do not lower their morale by 1: G1.62] [Mission End: S17.43] *[EXC Pillbox: B30.32]* [RePh: O11.6041, P8.6041, Q9.6041, R96041, T15.6041, T15.606] [Rout Effects: A20.21] [Upper Level: A7.72]

End of Actions: [OBA Observer: C1.322]

End of Scenario: [in ABtF: R9.4 CG4] [in BRT: T15.3] [in KGP: P8.4 CG23] [in PB: Q9.4 CG19 (-1 drm for any Night Scenario and +1 drm for Day II scenario: Turn Record Track)] [in RB: O11.4 CG4]

Enemy Setup Area: R9.2

Enterable: P8.2, Q9.2, R9.2, T15.2

Entrench Action: S6.24

Entrenching: B27.11 [Bamboo NA: G3.5] [Coral Soil: G13.82] [CX: A4.51] [Desert: F.1B] [Extreme Winter NA: E3.743] [Labor Status: B24.8] [+1 in Mud: E3.63] [Partisans NA: S12.211] [Prisoners: A20.5] [Russians: A25.21] [Sand: F7.421] [Snow: E3.722] [Wire: B26.4]

Entrenchments (A-T Ditch, Foxhole, Sangar, Trench): B27, J2.15, F8 [Air Bursts: B13.3] [Dozer vs: G15.21] [Elevation Advantage vs: B9.33] [in RB, HIP NA for Russian: SSR RB7] [Irrigation Ditch NA: Q1.6] [does not alter Mud effects: E3.65] [Palm Debris: T4.22] [in RB, entrenched unit may not enter Sewer Location: SSR RB2] [in RB, in a paved-road Shellhole hex: SSR RB5] [elimination by Shellhole creation: B2.1] [Stacking: A5.6]

Entry: D5.42 [Automatic Action: S6.315] [FRIENDLY: S15.5]

Entry (Offboard): A2.5

Entry Area: P8.2, Q9.2, QCG5, R9.2, T15.2 [ABtF: RCG9] [RePh: R9.6151]

Environmental Conditions: (see EC) B25.5

Equipment: O11.2, P8.2, Q9.2, R9.2, T15.2

Equivalency: [DYO: H1.74]

Errors: A.2

ESB (Excessive Speed Breakdown): D2.5 [Platoon Move NA: D14.21]

Escape: A20.55, O11.2, P8.2, Q9.2, R9.2 [Japanese prisoners NA: G1.621] [RePh: O11.6063, P8.606, Q9.606, R9.6054]

Escarpment: F12.5 [E: Escarpment overlay]

Evacuation: G14.4

Evasive Action: E8.211

EX: Example

EXC: Exception

Excavation Ditch: T11.1

Exit of mapboard: A2.6 [ENEMY Vehicles: S9.4] [FRIENDLY: S15.6] [in ABtF: RCG11] [in KGP: PCG21] [in PB: QCG15] [in RB: OCG13]

Exit Victory Conditions: A26.23

Exposed Reefs: G13.431 [in BRT: SSR4]

Extent of Error: C1.4

Extinguishing Attempts: B24.72 [Falling Rubble: B24.6]

Extreme Winter: E3.74 [Retained: S17.31]

Extremely Heavy Dust: F11.75

F

(f) (French manufacture counter symbol): D2.5

Factory: B23.74, O.4, O5, R3 [Backblast penalties NA: C13.8] [Interior Walls: O5.3, R3.3] [Mapboard Selection and Features: S13.26] [NVR: E1.1, O5.311] [in RB, Russian Fanaticism: OCG11] [Vehicle Movement: B23.742, O5.2]

Failure to Rout: A10.5 [Desert: F.1C] [Night NA: E1.54] [RtPh Surrender: A20.21] [Withdraw from Melee: A11.16]

Falling Snow: E3.71

Fanaticism: A10.8 [Battle Hardened: A15.3] [in ABtF British: RCG23, SSR8] [in PB, British in Stone Buildings (Balance Provisions): Q9.31] [Command Bunker: T6.1] [Cowering NA: A7.9] [in KGP, German: PCG14] [Mission End: S17.71] [in RB, Russian in Factories: OCG11]

Fascine: British Vehicle Note 37 [Seawall: G13.625]

Fast Aground: G12.211

Fast Turret Traverse: D1.31

Fate: A10.64 [Extreme Winter: E3.742] [Retained: S17.31] [WW: QCG17, RCG19]

FB (Fighter Bomber): E7.21

FBE (FRIENDLY Board Edge; the mapboard configuration's edge along which FRIENDLY units normally enter; the player should be seated with this edge nearest to them. For the sake of convenience, the FBE is always considered the *west* edge of the mapboard configuration): A20.53 [in ABtF: SSR15] [in PB: SSR PB11]

FF: counter abbreviation for Defensive First Fire

© 2000 Multi-Man Publishing, LLC

FFE (Fire For Effect; resolves OBA fire): (see also Indirect Fire) C1.5 [1/2 Options: C1.33] [all hexes in the Blast Area are marked with Gunflashes: E1.87] [Barrage: E12.3] [Canceled ends Fire Mission: C1.35] [Correcting: C1.331] [Dust: F11.75] [enemy FFE permits Starshells/IR: E1.91] [IR: E1.931] [Jitter Fire: E1.55] [Mines: B28.62] [Offboard Effect: A2.51, C1.32, C1.321] [Routing: A10.51] [Shellholes: B2.1] [Straying: E1.53] [Wall/Hedge: B9.34] [Wire: B26.52] [WP: C3.76]

FFE:C (FFE Continuation): C1.34 [replace with AR: C1.343] [Convert to FFE:1: C1.342] [Correct: C1.341] [IR: E1.931] [replace with SR: C1.341]

FFE Vision Effects: C1.57 [Barrage: E12.52] [Creeping Barrage: E12.75] [Dust: F11.75] [ENEMY entry NA: S9.26] [ENEMY: S8.71] [S? entry NA: S3.322]

FFMO (First Fire Movement in Open Ground; a -1 DRM vs moving Infantry in Open Ground, but it does not apply if it is combined with another effective protective TEM or LOS Hindrance): A4.6 [vs Broken units: A8.14] [Bypass: A4.32] [FFE: C1.51] [HA: B10.31] [Heavy Dust: F11.73] [Loading/Unloading: D6.5] [not negated by LV hindrance: E3.1] [NA vs Pinned Units: A7.83] [Road Use: A4.132] [NA within Trench: B27.54] [Woods-Road: B13.31]

FFNAM (First Fire Non-Assault Movement; a -1 DRM vs moving Infantry, provided the target is not using Assault Movement): A4.6 [vs Broken Units: A8.14] [FFE: C1.51] [NA vs Pinned Units: A7.83] [NA within Trench: B27.54] [Unloading: D6.5]

FG (Fire Group): A7.5-.55 [Bore Sighting DRM: C6.44] [ENEMY: S5.3, S8.5] [Halftrack/Carrier: D6.64-.65] [Heavy Payload NA: C.7] [Heroic DRM: A15.24] [Human Wave: S4.36] [NA in dense jungle, kunai, bamboo, or swamp: G.3] [Leadership: A7.53] [MOL: A22.611] [Night NA: E1.75] [Partisans in multi-Locations NA: S12.211] [Seaborne Assaults NA: G14.25] [Spraying Fire: A9.52] [Vehicular: A7.51, D6.64]

Field of Fire: A9.21, J2.21

Field Phones: C1.23, O6, PCG15 [Cave: G11.837]

Field Promotions: A18

Fighter Bomber: (see FB) E7.21

Final DR/dr: a DR/dr after all applicable modification by DRM/drm

Final Fire: A8.4 [Cowering Penalty: A7.9] [ENEMY: S8.62] [Gliders, Paratroops: E8.3] [Panic Action: S6.212] [Spraying Fire: A9.52] [Thrown DC: A23.63] [Vehicular: D3.32]

Final Protective Fire: (see FPF) A8.31

Finnish: A25.7 [Cowering NA: A7.9] [Stealth: A11.17]

Fire (Blaze or Flame): B25 [Cave: G11.95] [Clearance: B24.72] [Control Forfeiture: A26.13] [Fortified Building: B23.94] [FT-caused: B25.12] [HE-caused: B25.13] [Huts: G5.6] [Illumination at Night: E1.94] [Jungle: G2.5] [Kindling Attempt: B25.1] [Kunai: G6.1] [MOL-caused: A22.611] [Mud: E3.6] [Palm Trees: G4.1] [in PB, NA: SSR PB9] [Rice Paddy: G8.6] [Rubble: B24.6] [Snow: E3.721] [Spreading Fire: B25.6] [WP-caused: A24.32]

Firepower: (see FP) A1.21

Fire Attacks: (see Fire Attacks NA) A7 *[EXC First/Final Fire: A.15]*

Fire Attacks NA: [AFV MG TK (unless MG is MA): D3.54] [vs friendly units: A7.4] [MMG, HMG, mortar, INF/RCL SW, or $^{5}/_{8}$" non-vehicular ordnance if moved: A4.41] [restricted use of SW by Crest Infantry: B20.95] [out of hex if TPBF possible: A7.212]

Fire Direction: A7.53 [Mandatory MG Long Range: A9.4]

Fire for Effect: (see FFE) C1.5

Fire Group: (see FG) A7.5-.55

Fire Lane: A9.22 [NA in Ammunition Shortage: A19.131] [Betio Piers: T9.2] [Bore Sighting NA: C6.41] [Cave: G11.821] [Cowering NA: A7.9] [Dash: A4.63] [Deir: F4.52] [ENEMY entry NA if ≥ 4 unless in/ADJACENT to a FRIENDLY Controlled VPO: S9.26] [Hillocks: F6.53] [Huts: G5.21] [IFE NA: C2.29] [Night: E1.71] [BRT Ocean: T2.4] [S? entry NA if ≥ 4 unless in/ADJACENT to a FRIENDLY Controlled VPO: S3.322] [Slope: P2.31, Q3.31] [Wreck Blaze: B25.2]

Fire Lane "Hard" Hindrance (modifies Fire Lanes; AFV/Bridge/Crag/Debris/Graveyard/Olive Grove/Orchard/Palm-Trees/Seawall/Wooden Pier/Wreck): A9.222

Fire Lane "Soft" Hindrance (does not modify Fire Lanes; Brush/Heavy-[or denser]-Dust/FFE/Grain/Hut/Kunai/Marsh/in-season-Paddy/SMOKE/Vineyard): A9.222

Fire Mission (A Fire Mission consists of the entire time between a Battery Access draw in which a FFE is on board; i.e., from the time it is placed as a FFE:1 counter to the CCPh of the Player Turn in which the FFE:2 counter is changed to a FFE:C counter): C1.7 [NOBA: G14.67]

Fire Phase: PFPh, DFPh & AFPh

Firer-Based Hit Determination DRM: C5

Firing Within Hex (i.e., firing at zero range): A7.21-.212, C5.5 [Area Target Type NA: C3.33] [Bypass: A12.151] [CA: C3.2] [Concealment: A12.15-.151] [Japanese DC Usage: A23.61] [Marketplace: B23.732] [OVR Prevention: C5.64] [Reaction Fire: D7.2] [Stairwells: B23.25-.26] [Target Gunshield NA: C11.5] [To Hit Case E: C5.5] [TPBF: A7.21-.212] [Vehicular Overstacking: A5.132] [Vehicular Target Facing: D3.2]

First Fire (FF, also known as Defensive First Fire): A8.1 [Activated ENEMY: S5.3] [vs Bypass: A4.33] [ENEMY vs non-Vehicular Target: S8.61] [ENEMY vs Vehicle: S8.612] [Human Wave: A25.233] [OBA: C1.51] [Reaction Fire: D7.2-.22] [Residual FP: A8.2] [Spraying Fire: A9.52] [TB DRM: B13.4212]

Fixed Mount MG: D1.81

Flail Tank: B28.7, American Vehicle Note 20

Flame (preliminary-stage fire, as distinct from Blaze): (see Fire) B25.1, B25.15, J2.13 [Automatic Action: S6.304] [Bombardment: C1.823] [Clearance: B24.7, B24.72] [Control Forfeiture: A26.13] [Falling Rubble vs: B24.6] [Hampered: B25.15, J2.13] [in KGP, occur in a building/rubble location: SSR KGP9] [MOL-Projector: C13.57, 13.59] [Illumination at Night only in its own Location: E1.942] [RCL Backblast: C12.4] [RePh: O11.6096, P8.609, Q9.609, R9.609, T15.610] [S? Activation: S3.31] [Smoke NA: B25.2] [Wreck Blaze in flammable terrain: B25.14]

Flamethrower: (see FT) A22

Fog: E3.31

Foot Bridge: B6.44

Fording: B21.41-.43 [Fording Lines: E6.6]

Fords: B20.8 [Crest Status NA: B20.9] [Printed: P4.3]

Forest: B13.7

Formation: T15.2

Fortification (Cave, Entrenchment, Minefield, Panji, Pillbox, Roadblock, Tetrahedron, Wire): [Blaze Location in RePh: O11.6097, P8.6095, Q9.6095] [in BRT: SSR1 (BRT Sand: T3.2) (NA in Betio Piers: T9.2)] [Cave NA: G11.93] [Collapsed Hut: G5.51] [Debris: O1.3] [DYO purchase for Japanese: G1.663] [Elimination in RePh: O11.615, P8.615, T15.6139] [Fortifications in jungle, kunai, or bamboo lose HIP as if at night (E1.16): G.2] [FPP: O11.2, P8.2, Q9.2, R9.2, T15.2] [Gun S? Activation in a Fortification automatically in a Trench: S5.741] [HIP:

© 2000 Multi-Man Publishing, LLC

A12.33] [Hidden in RePh: O11.6073, P8.6073, Q9.6073, T15.6082] [revealed by Interrogation: E2.23] [Irrigation Ditch NA: Q1.6] [Narrow Streets: B31.14] [Night: E1.16] [only Beach Obstacles allowed in Ocean: G13.5] [Palm Debris: T4.22] [Panji: G9.55] [Purchasing in RePh: O11.621, R9.619, T15.614] [Rice Paddy: G8.7] [S? Activation: S5.74] [Sand: F7.42] [Wire/Entrenchments NA in Bamboo: G3.5]

Fortified Building: B23.9 [ABtF Cellars: R4.11] [Command Bunker: T6.1] [DC Hero: G1.4241] [RB Cellars: O6.11] [Rooftop NA: B23.81] [Rubble: B24.3] [S? Activation in a Fortification: S5.742, S5.761] [Sewers: B8.44] [Steeple NA: B31.2] [Towers NA: B34.21] [Tunnels: B8.6-.61] [Wall Advantage: B9.32]

Forward Location: [Human Wave: A25.2311]

Foxhole: B27.1

FP (Firepower): A1.21

FPF (Final Protective Fire): A8.31 [vs Berserk: A15.432] [Cavalry: A13.6] [CC Reaction Fire: D7.212] [ENEMY: S8.613] [Human Wave: A25.231] [Non-CC Reaction Fire: D7.221] [Panic Action: S6.212] [Pillbox: B30.43] [Thrown DC NA: A23.63]

FPP (Fortification Purchase Points): O11.2, P8.2, Q9.2, R9.2, T15.2 [RePh: T15.6143]

FRD: Fractions Rounded Down

Freedom of Movement: E1.21 [in PB: QCG4]

French: A25.5 [Free French: A25.53] [Free French Equipment: A25.54-.56] [Green Units: A25.51, A19.2-.3]

Friendly: having to do with the Nationality controlled by the player

Frigid: B20.7, E6.1, P4.23

Front Line Hex: P8.2, Q9.2

Front Line Location: O11.2, R9.2, T15.2

Frozen Stream: B20.7

FRU: Fractions Rounded Up

FT (Flamethrower): A22 [Armor To Kill: C7.344] [Automatic Move Action: S6.306] [BF: abbr. for Bow Flamethrower] [Bounding (First) Fire: D3.31] [vs Caves: G11.834] [vs Guns: C11.51] [Gunflashes: E1.84] [Island Command Bunker: T6.2] [Kindling Attempt: B25.12] [LC NA: G12.611] [Motion Fire: D2.42] [OVR: D7.15] [RePh: O11.6134, T15.6133] [SA FT optional: U.S. Multi-Applicable Note F] [Vehicular-Mounted: D3.6]

Full Level Height Equivalent (the integral height [FRD] of a LOS obstacle): A6.4

Full Strength: O11.2, P8.2, Q9.2, R9.2

Fully Armored: any OT/CT AFV that is not partially armored

G

G: [Grain overlay] [Gyrostabilizer: D11.1]

(g) (German manufacture counter abbreviation): D2.5

Gallop: A13.36 [Wagons: D12.4]

Game Turn (two Player Turns each consisting of eight phases [RPh-CCPh]): A3

Gammon Bombs: SSR PB15 [ABtF: SSR6] [British Airborne SMC: SSR PB13]

Gaps, Convoy: E11.21

German: (see Axis Vehicles, SS) A25.1 [pre-1942 Paradrop: E9.7] [1942-43 in North Africa DYO: F.6] [Infantry Company: S18.5] [Paradrop: E9.2]

Glider: E8 [Cloaking NA: E1.41] [DYO: H1.48] [Huts: G5.43] [in PB, Landing drm: SSR PB20] [Irrigation Ditch: Q1.6] [Ocean: G13.492] [Panji: G9.47] [Partial Orchard: Q2.5] [Rice Paddies: G8.22] [Sniper NA until Game Turn after Landing: E9.32] [Swamp: G7.32] [Tetrahedron: G14.51]

GLRR (Ground Level Railroads): B32.1

G.M.D. (Guomindang; the Chinese Nationalist Party, used here to refer to the Nationalist Chinese army as opposed to the Communist [Red] Chinese army): G18.2

Goliath: German Vehicle Note 93

Good Order (a Personnel unit or vehicular inherent crew which is neither broken, berserk, captured, stunned, shocked, or held in Melee; or a SW which is fully manned by a Good Order Personnel unit, and is not malfunctioned, or restricted by an Ammunition Shortage): A.7 [a Panicked unit is never in Good Order: S6.211] [Target of Activated ENEMY: S5.3, S5.31]

GP (see Ground Pressure): D1.4

GPP (Gun Purchase Points): T15.2 [RePh: T15.6141]

Grain (in season June to September): B15 [G: Grain overlay]

Graveyard: B18

Green Beach: T15.2

Green Units: (see Inexperienced Personnel) A19.2-.3 [British: A25.41] [Class ID: A1.25] [French: A25.51] [Panic Action: S6.21]

Grid Coordinates: A2.2

Ground Level Railroads: (see GLRR) B32.1

Ground Pressure (L = Low [boxed ID letter on counter]; H = High [circled ID letter on counter]): D1.4 [Bog Check DRM: D8.21]

Ground Snow: E3.72

Ground Support: E7.4 (see Aerial Attack: E7)

GT (Gun Type): D1.3 [T = fast traverse: D1.31] [ST = slow traverse: D1.322] [RST = restricted slow traverse: D1.321] [1MT = one-man turret: D1.322] [NT = non-turreted: D1.33]

Guard: A20.5-.55 *[EXC CC Withdrawal: A11.16]* [ENEMY Automatic Action: S6.303]

GUARDS (Russian elite status MMC units): A25.2

Gully: B19 [Betio Gullies: T12.1] [Exit; Underbelly Hits: D4.3] [Gully Entrance Hexside: O8] [in RB, a Roadblock may be set up IN a gully or Culvert hexside: SSR RB5] [Rubble: B24.2] [Shellholes: B2.1, B2.4]

Gun (for firing purposes, any weapon on a $^{5}/_{8}$" counter currently firing as ordnance; for non-firing purposes, any non-vehicular weapon on a $^{5}/_{8}$" counter): C2.1 [ABtF: RCG5] [never Emplaced in Bamboo: G3.4] [BRT: TCG13] [in Buildings: B23.423, B23.85, B23.93, C2.7, C10.3] [Cave: G11.92] [Classification: C2] [Concealment: A12.2] [Emplacement: C11.2] [En Portee: C10.5] [ENEMY Action DR: S6.13] [Factory: R3.4] [First/Final Fire: C2.241] [GPP: T15.2] [HIP: A12.34] [Irrigation Ditch TEM NA: Q1.3] [Non-Qualified Use (& SMC): A21.13] [PB: QCG11] [Pillbox: B30.111] [Possession: A4.43] [Random Destruction: A9.74, A11.13] [RB: OCG5] [setting up in a RB Factory: O5.6] [Rooftops: B23.85] [S? Activation in a Fortification automatically in a Trench: S5.741] [S? Activation: S5.76] [Sangar: F8.52] [Stacking: A5.4] [Steeple NA: B31.21] [Target Size: C2.271] [Towers NA: B34.4] [Towing: C10.1] [Wadi Crest position: F5.43]

Gun & Ammo Movement: C10 [Bamboo NA: G3.2] [Boats: E5.2] [Building: B23.423] [Caves: G11.76] [Deep Snow: E3.7332] [Fortified Building: B23.93] [Labor Status: B24.8] [LC: G12.421] [Manhandling in Irrigation Ditch: Q1.42] [Minimum Move NA: A4.134] [Mud: E3.61] [Panji hexside: G9.411] [Prohibited hexes: C2.7] [Sangar: F8.52] [Wading: G13.4211]

© 2000 Multi-Man Publishing, LLC

Gun & Ammo Type Basic TH# Modifications: C4

Gun as Target: C11 [ATR: C13.23] [Barrage: C1.821]

Gun Caliber Size (CSize): C2.21 [Overscore: AP NA] [Small Calibers (≤ 57mm): C4.2] [Smoke Only: British Multi-Applicable Vehicle Note S] [Underscore: HE NA]

Gun Crew: D7.23 [Automatic Action: S6.310]

Gun Depression/Elevation: C2.6 [across Cliff: B11.31-.32]

Gun Destruction: C11 [by CC: A11.13] [by OVR: A9.74] [while in Tow: C10.1]

Gun Duel: C2.2401 [DEFENDER declares: C5.33]

Gun Emplacements: T8.1

Gun Purchase Points: (see GPP) T15.2

Gun Turrets: T8.2

Gun Type: (see GT) C2.22, D1.3

Gunflashes: E1.8 [MTR/IR: E1.932]

Gunshields: C11.5 [NA against a Direct Hit: C11.4]

Gurkha: A25.43 [Climbing: B11.433] [DYO: H1.24] [Stealth: A11.17]

Gusts: B25.651, E3.4 [affect on Dust: F11.76]

Gutted Factory: O5.5

Gyrostabilizer (G; aka Stabilized Gun): D11.1 [Acquisition: C6.55] [BFF CMG: D3.31] [DYO: H1.42] [BRT: SSR10] [in KGP, U.S. makes a secret dr as per H1.42: SSR KGP17] [S? Activation: S5.713]

H

H: Hillock overlay

H# (HEAT Depletion Number; the number is the Depletion Number, and the superscript following it indicates the first year it applies and a letter indicates the month of that year [EX: A superscript of "4" means the vehicle/ordnance has that ammo starting in 1944]): (see also HEAT) C8.3

HA (Height Advantage): B10.31 [Cellars: R4.3] [Climbing NA: B11.42] [Continuous Slope: B1.14] [Factory Rooftop Access Points: R.3C] [Hillock: F6.51] [Indirect Fire NA: C1.55] [Residual FP: A8.26] [Vehicular: D4.22]

Half Hexes: A2.3

Half-Level Obstacles (Cactus Hedge, Cactus Patch, Dune Crest, Hedge, Hillock, Roadblock, Rubble, Seawall, Wall): A6.21 [FFE: C1.52]

Half Squad: (see HS) A1.122

Halftracks, Armored (ht): D6.6 [CC: A11.62] [Symbol: D1.14] [Trench entry NA: B27.55] [Unarmored: D6.7]

Hammada: F3

Hamper (a Final Fire Clearance DR < 7 but > 2 which prevents a Flame from becoming a Blaze): B24.721

Hand-to-Hand (HtH) CC: J2.31 [ABtF: SSR10] [BRT: SSR3] [Dare-Death Squads: G18.62] [Gurkha: A25.43] [Japanese ATTACKER in CC: G1.64] [in RB, always allowed: SSR RB11]

Hara-Kiri: G1.641

Harassing Fire: C1.72 [CH: C3.75] [FFE Hindrance NA: C1.57] [Pre-Registered Fire: C1.733]

Hazardous Movement: A4.62 [Banks: G8.212, G8.2111] [Clearance of: (Debris: O1.5) (Fire: B24.72) (Jungle Path: G2.7) (Roadblock: B24.76) (Rubble: B24.71)] [Climbing: B11.42] [Column: E11.52] [Crew Survival: D5.6] [Fording: B21.4] [Immobilization TC: D5.5] [Manhandling: C10.3] [Pack-TI: G10.11] [Parachutes: E9.3] [Temporary Breach: P3.21] [To Hit DRM: C6.6]

HD (Hull Down): D4.2 [Bocage: B9.36] [Bow-Mounted Weapons: D4.223] [CH: C3.7] [Elevated Road NA: B5.21] [Elevation Effects vs wall: B9.22-.33] [IFT vs Unarmored Vehicles: B9.36] [Setup on Crest: D4.221] [Trench: B27.52] [Wall: B9.36] [Water Obstacle: D16.3]

HD Maneuver Attempt: D4.22 [Armor Leader: D3.44] [Setup: D4.221]

h-d (horse-drawn; cannot be towed by a motorized vehicle): German Ordnance Listings Key [Horse-Drawn Transport: D12]

HE (High Explosive; a type of attack including DC, aerial bombs and all forms of Indirect Fire): [vs CE: D5.31] [CH: C1.53, C3.7-.74] [+1 TEM in Deep Snow: E3.731] [Flame Creation: B25.13] [German 28LL, 40LL: C4.3] [IFT Use: C.6] [Limited Stowage: C8.8] [Marsh: B16.31] [+1 TEM in Mud: E3.62] [To Kill Table: C7.34]

HE# (HE Limited Stowage; the number is the Depletion Number, and the superscript following it indicates the first year it applies and a letter indicates the month of that year [EX: A superscript of "F4" means the vehicle/ordnance has that ammo in February of 1944])

HE Equivalency (use of AP/APCR/APDS/ATR/HEAT on IFT): C8.31

HEAT (High Explosive Anti-Tank): C8.3 [vs Cave: G11.835] [Flame Creation: B25.13] [vs Guns: C11.51] [HE Equivalency: C8.31] [vs Huts: G5.31] [IFT Resolution & Personnel Target Restrictions: C8.31] [Range Effects NA: C7.24] [Rubble Creation: B24.11] [vs Schuerzen: D11.23] [To Kill Table: C7.33]

Heat Haze: F11.62

Heat of Battle (HOB): (see Heat of Battle NA) A15 [Japanese: G1.62] [WW: QCG17, RCG19]

Heat of Battle NA: A15.1 [Panji MC: G9.31] [Parachutes: E9.3] [Pathfinders: T1.1] [Swimming: E6.1] [Wading: G13.421]

Heavy AA: E7.52

Heavy Dust: F11.73

Heavy Payload: C.7

Heavy Surf: G13.44

Heavy Wind: B25.63 [Dust: F11.761]

Hedgerow: (see Bocage) B9.5

Hedges: B9 [Bog Check for all crossing vehicles: SSR PB6] [Bypass LOS across: A4.34] [Hillside: B9.6, P6, Q8] [OVR TEM: D7.15] [TEM NA for Ground Support: E7.4; for PRC: B9.3]

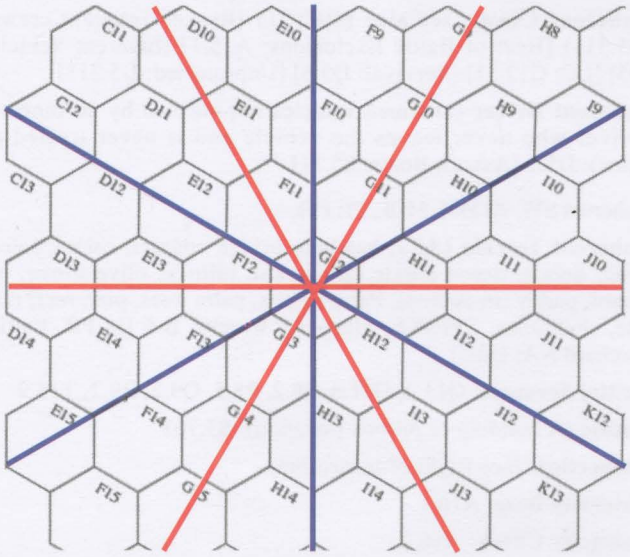
Height Advantage: (see HA) B10.31

Hero: A15.2 [Battle Hardening in RePh: O11.6112, P8.6113, Q9.6112] [BAZ: C13.45] [in BRT: SSR5] [Casualty MC: A10.31] [CMD DR NA: S16.32] [DYO: H1.2] [ENEMY: S8.4] [Heat of Battle NA: A15.1] *[EXC Pin: C13.31]* [RePh: O11.6112, P8.6113, R9.6112, T15.6113] [Rider with AAMG: D5.34] [Stealth: A11.17] [T-H Hero: G1.421] [WW: QCG17]

Hex (the area inside the six hexsides which compose a hex, including those hexsides and their vertices): [Location: A2.8] [Normal Stacking Limits: A5]

Hex Grain (any string of connected hexes in which a straight LOS drawn between the first and last hex center dots also bisects the hex center dot of every hex between them; all the red lines in the example below are drawn along a Hex Grain of the central hex; the blue lines represent the Alternate Hex Grain of the central hex): [Alternate Hex Grain: A9.221] [Field Phone Security Area: C1.23] [Fire Lane: A9.22]

© 2000 Multi-Man Publishing, LLC



Hexside (one of the six lines which combine to form a hex; each hexside also contains two vertices): [Indirect Fire TEM: C1.52] [Inherent Terrain: B.6] [MF cost: A4.131] [Railroad: B32.1] [Road hexside: B3.13] [TEM: B1.16]

Hexspine (the hexside of an adjacent hex which combines with two hexsides of the subject hex as if forming six spokes of a wheel; hexside E8-E9 is a hexspine of hex F8 and hex D8): C3.2

HH: Hull Hit required

Hi: Hill overlay

Hidden Guns: A12.34

Hidden Initial Placement: (see HIP) A12.3-.34

High Seawalls: G13.61

Hill: B10 [Open Ground: B1.14]

Hill Depressions: B19.5

Hillock: F6 [H: Hillock overlay] [Indirect Fire vs: C1.52] [EmRR: B32.12] [Ramp: R2.1] [Summit: F6.6]

Hillside Walls and Hedges: B9.6, P6, Q8

Hindrance, LOS (AFV, Bridge, Brush, Crag, Debris, FFE, Grain, Graveyard, Hut, Kunai, Marsh, Olive Grove, Orchard, in-season Paddy, Palm Trees, Sea Wall, SMOKE, Vineyard, Wooden Pier, Wreck): (see LV) A6.7 [Blockage: B.10] [Convoy Hindrance: E11.4] [Debris: O1.1] [FFE: C1.57] [Fire Lane: A9.22] [Glider: E8.3] [IFT: A7.6] [Inherent Terrain: B.6] [beached LC: G12.81] [Level: B.4] [Motion/non-stopped NA: D2.41] [Outgoing LOS: A24.8] [Residual FP: A8.26] [To Hit: C6.9] [Towers: B34.2] [Wreck/AFV: D9.4]

Hindrance, LV: (see LV)

Hindrance Level: B.4 [SMOKE: A24.4]

Hinterland: G13.2 [BRT Sand: T3.1] [in BRT: SSR1] [Pathfinders Eliminated: T1.3]

HIP (Hidden Initial Placement): A12.3-.34 [Activation of ENEMY units during Mopping Up: S15.9] [Beach Obstacles: G14.501] [Caves and Cave Complexes: G11.3] [loss in CC: A11.19] [DLV: F11.601] [DYO: at Night, bonus set up is in addition to H1.6: E1.2, E1.411] [in RB, Entrenchments/Wire NA for Russian: SSR RB7] [Field Phone: C1.23] [FRIENDLY Units: S15.2] [Gun, Emplaced: A12.34] [Interrogation: E2.22] [Japanese: G1.631] [Japanese Pillbox: G1.632] [Night: E1.2, E1.31] [Panjis: G9.11] [PTO Terrain Detection: G.4] [Spotters: C9.3] [T-H Heroes: G1.422] [VBM vs: A12.42]

Hit Location: C3.9 [DC: C7.346] [Deliberate Immobilization: C5.72] [Fire in Same Location: D3.2] [Immobilization: C7.5] [UK: C7.41] [Underbelly Hits: D4.3] [Vehicular Target Facing: D3.2]

Hits: [Critical: C3.7] [Direct: C11.4] [Improbable: C3.6] [Multiple: C3.8] [Near Miss: C11.1]

HMG (Heavy Machine Gun): [AFPh: A4.41] [dm: A9.8] [Crest fire NA: B20.95] [First Fire: A9.2-.21] [Japanese Squad/HS use: G1.611] [Light AA: E7.51]

HOB: (see Heat of Battle) A15

Hold Attitude (An ENEMY Prevailing Attitude): S3.2 [Fortification Generation on S? Activation: S5.74] [Long Range Activation S5.32]

Hold Attitude Activation: [S?: S3.31]

Holding Box: P8.2

Hooking Up Guns: C10.11 [CMD DR: S16.35] [Towing on Narrow Street: B31.124]

Horse-Drawn Transport (wagon, pulkka, sledge): (see also h-d) D12 [Barbed-Wire Fences NA: P3.2, Q7.2] [Bypass: D.2] [Column: E11.535] [DYO: H1.44-.441] [Irrigation Ditch NA: Q1.43] [VBM: D2.3] [Wire: B26.42]

Horses: A13.7 [Bypass: D.2] [Capacity: A13.32] [DYO: H1.44] [Foot Bridge: B6.44] [Panji: G9.422] [★ Vehicle Target: A13.511]

Hostile Country: E2.4

House Rules (any mutually agreed upon method for speeding up play, or adjusting the official rules for a particular group's own enjoyment or convenience): A.9 [Concealment: A12.16]

HS (Half Squad): A1.122 [Casualty VC: A26.21] [Deploying: A1.31] [DYO: H1.212] [Japanese: G1.2] [Recombining: A1.32] [S? Activation becomes Squad if that Nationality cannot Deploy: S5.72] [Stacking Equivalency: A5.5] [SW Usage: A7.352]

ht: (see Halftracks, Armored) D6.6

HT: Heavy Tank

HtH: (see Hand-to-Hand CC) J2.31

Hull Down: (see HD) D4.2

Hull Hit: C3.9 [Wading: T2.3]

Human Wave: A25.23 [APh: S4.322] [Automatic Action: S6.305] [Banzai Charge: G1.5] [Chinese: G18.5] [Cloaking: E1.423] [Column NA: E11.52] [Dare-Death Squads: G18.61] [ENEMY Human Wave moves after ENEMY Berserkers, and before other ENEMY units: S9.1] [Generation: S4.34] [FG: S4.36] [Heat of Battle NA: A15.1] [Move Action: S4.32] [S?: S4.3]

Hungarian: A25.8, A20.55

Huts: G5

I

(i) (Italian manufacture counter symbol): D2.5

ICB: (see Island Command Bunker) T6.2

Ice: B20.7, B21.6 [Snow: E3.722]

Identity, Personnel: A1.24

Identity, Vehicular: D1.4

Idle Date: P8.2, R9.2

Idle Day: O11.2

i.e.: "that is"

IF: (see Intensive Fire) C5.6

IFE (Infantry Firepower Equivalent): C2.29 [Acquisition NA: C6.53] [vs AFV: A9.61] [Concealment Loss: A12.34] [Cowering

© 2000 Multi-Man Publishing, LLC

NA: A7.9] [Mandatory Fire Direction NA: A9.4] [Pinned: A7.81] [Conditional ROF, i.e. ROF -1: C2.29]

IFT (Infantry Fire Table): A7 [HE Use: C.6] [Unarmored Vehicles: A7.308]

IIFT (Incremental Infantry Fire Table): A7.37

ILH (Intended Landing Hex): E8.2

Illuminating Rounds: (see IR) C8.7, E1.93

Illumination: E1.9 [Cave Complex NA: G11.96] [Caves: G11.96] [Dust: F11.78] [RB Roofless Factories: O5.48]

Immob (counter abbreviation for Immobilized): D8.1

Immobile (any vehicle which is Abandoned, Bogged, Immobilized, Shocked, or Stunned): D.7 [RePh: O11.6131, P8.615] [Target Status: D8.4]

Immobilization: D8.1 [Ammo Vehicles: E10.4] [Deliberate: C5.7] [Factory Movement: R.3] [Hammada: F3.31] [LC: G12.602; LC Passengers NA: G12.13] [Motorcycles NA: D15.5] [OVR: D7.17] [Panji hexside: G9.42] [Pathfinders Eliminated: T1.3] [Random: C7.5] [Recall: D5.341] [RePh: O11.6131, P8.6141, Q9.6141, R9.6141, T15.6131] [Secret Record: PB QCG9] [TC: D5.5; TC in BRT: SSR12] [Unarmored Vehicle: A7.308] [Wreck depiction: D8.1]

Immune Areas: C1.81 [Naval Bombardment: G14.71]

Improbable Hits: C3.6

Impulse (one segment in the movement of a Human Wave or radioless AFV platoon): A25.231, D14.2 [Column: E11.52] [Convoy: E11.2]

IN/INTO (used in reference to the bottom of a Depression hex, rather than to Crest status units in the same hex): A.6 [Gully Bridge: B19.3]

In-Season Rice Paddies: G8.13

Incremental Infantry Fire Table: (see IIFT)

Indirect Fire (mortar/OBA fire): (see FFE) C.1 [Air Burst: B13.3] [vs Bridges: B6.32] [Building: B23.32] [Climber: B11.42] [Crest: B20.92] [Culvert: O7.3, P4.24] [Factory TEM/Hindrance: R.3A] [HA NA: B10.31, C1.55] [HD NA: D4.2] [RB Roofless Factories: O5.45] [Roadblock: B29.5] [Upper Level Rubble: B24.3] [Wall/Hedge: B9.34]

Inexperienced Crew: D3.45 [LC: G12.113] [Panic Action: S6.21]

Inexperienced Personnel: A19.3 [CC capture attempt: A20.22] [Lax: A11.8]

INF Gun: C2.22 [Field of Fire: A9.21] [Gun Type: C2.22] [can occupy building/rubble if not a large target: C2.7]

Infantry (all SMC & MMC counters on foot; i.e., not mounted as Cavalry or PRC): Chapter A [DYO: H1.-.28, H1.7-.73]

Infantry crew counter (distinct from a vehicular crew counter by its FP of 2 and Elite status): A1.123 [Captured AFV: A21.22]

Infantry Movement: A4 [Deep Snow: E3.733] [Mud: E3.64] [Rain: E3.54] [Snow: E3.723]

Infantry OVR: A4.15 [Japanese: G1.4, G1.62]

Infantry Target Type: C3.32

Inferior Turret (counter AF encased in a circle): D1.64

Infiltration: A11.22

Inherent: Any capability included within a counter with no need to be represented by another counter; for example, any AFV has an inherent crew that can Abandon the AFV and take separate counter form

Inherent Crew: (see also PRC) D5 [Broken inherent crews: D5.311] [Heat of Battle Exclusions: A15.1] [Inherent Vehicle: D5] [LC: G12.11] [Survival: D5.6] [Unprotected: D5.311]

Inherent Driver (unarmed vehicles are manned by an Inherent Driver who never leaves the vehicle and is never treated as crew): D5.1 [Assault Boats: E5.11]

Inherent SW: ATMM, MOL, PF, PFk

Inherent Terrain (AFV, bamboo, bridge counter, cactus patch, crag, debris, dense jungle, graveyard, hillock, olive grove, orchard, paddy (in-season), Palm Debris, palm trees, pier, reef, rubble, shellholes, SMOKE, vineyard, wreck): B.6 [in PB, Partial Orchard NA: Q2.2]

Initial Scenario: O11.2, O11.5, P8.2, P8.5, Q9.2, R9.2, T15.2

Inside (A building or pillbox Location): S5.761

Inspection: (see Right of Inspection)

Integrity Base: A16.1

Integrity Check: A16.2

Intended Landing Hex: (see ILH) E8.2

Intense Heat Haze: F11.621

Intensive Fire (IF): C5.6 [AFPh Restriction: A4.41, A7.25] [Area Target Type: C3.33] [B#/X#: A.11] [Conditional ROF: C2.5] [Depletion Number: C8.92] [ENEMY will only use against an ADJACENT Target: S8.21] [Final Fire Restriction: A8.41, C2.241] [OVR Prevention: C5.64] [Pinned: A7.81] [Subsequent First Fire: A8.3]

Interdiction: A10.53 [Aircraft NA: E7.4] [Area Target Type: C3.33] [Armor Leader: D3.44] [Dust: F11.711] [Entrenchments: B27.41] [HA: B10.31] [not negated by LV hindrance: E3.1] [Minefields: B28.413] [Woods-Road: B13.31]

Interdictor: A10.532

Interior Building Hex (a building hex completely surrounded by building hexsides, such as 1X4 or 20C7): [Indirect Fire: B23.32] [RB factory: O5.3] [Sniper Attacks NA vs: A14.22]

Interrogation: E2 [in ABtF: SSR7] [revealing the presence of Caves: G11.981] [Chinese: G18.71] [in KGP and PB, Civilian (only) interrogation (E2.4) is allowed: SSR KGP18, SSR PB21] [PTO: G1.621] [NA in SASL: S0]

IPC (Inherent Portage Capacity): A4.42 [Broken Units: A10.4] [-1 if CX: A4.52] [Voluntary Rout: A10.711] [WW: QCG17, RCG19]

IR (Illuminating Round; the superscript following it indicates the first year it applies [EX: A superscript of "2" means the Gun has IR in 1942]): C8.7, E1.93 [Dust: F11.78] [in RB: SSR RB12] [NOBA: G14.672]

Irrigated Rice Paddies: G8.12

Irrigation Ditches: Q1 [Irrigation-Ditch-Partial-Orchard Hex: Q5.2]

Island Command Bunker (ICB): T6.2

Islands: G13.15

Isolated Area: O11.2 [RePh: O11.606, O11.6072, P8.6052] [Upper Level in KGP: P8.6057]

Isolated Location: O11.2, P8.2, Q9.2, T15.2

Isolated Unit: [RePh: O11.6061, P8.6052, Q9.6052, T15.6072] [Setup in RePh: Q9.62021, T15.6201]

Italian: A25.6 *[EXC Berserk: A15.1]* [Escape NA unless Abandoned: A20.55]

© 2000 Multi-Man Publishing, LLC

J

Japanese: G1 [DC Usage: A23.61] [Disruption NA: A19.12] [Escape NA unless Abandoned: A20.55] [Massacre: A20.4] [RtPh Surrender NA: A20.21]

Jetty: [Port of Betio: T9.1]

Jitter Fire: E1.55 [FFE: E1.55] [Freedom of Movement NA: E1.552] [NA in Jungle: G2.22]

Jungle: G2 [Fortifications, Fire Groups, Detection, Recovery, Ambush: G.2-G.6]

K

K (Kill): A7.302

K# (Kindling Number): B25.11

Kampfgruppe (CG): R9.2

KIA (Killed In Action): A7.301

Kindling: (see Fire, Kindling NA) B25.11 [British in ABtF: SSR13] [Building-Palm: T4.3] [Building-Orchard Hex: Q5.44] [Control Forfeiture: A26.16] [Germans in ABtF: SSR13] [Gutted Factory: O5.51] [Irrigation Ditch: Q1.8]

Kindling NA: [BRT: SSR1] [Night: E1.94] [in KGP: SSR KGP9] [in PB: SSR PB9] [in VPO: S14.5]

Known Enemy Unit (any unconcealed, non-prisoner enemy unit—even one which is broken or in Melee—which the unit in question currently has a LOS to): A12.11

Known Minefields: B28.45, F.7, F.7A, P7 [ENEMY entry NA unless in/ADJACENT to a FRIENDLY Controlled VPO: S9.26] [FRIENDLY: S15.3] [Rout not required through them: B28.413] [S? entry NA unless in/ADJACENT to a FRIENDLY Controlled VPO: S3.322]

Korean Labor Units: [BRT: TCG12]

KR "Kakazu Ridge" ASL mini-Historical Module: ASL Journal #2

Kunai: G6 [Fortifications, Fire Groups, Detection, Recovery, Ambush: G.2-G.6]

L

L (Long Barreled Gun): C4.1

Labor Status: B24.8 [CX: A4.51] [Entrenching: B27.11] [Manhandling: C10.3]

Lake: G13.12

Landing MC: [Bamboo: G3.7] [Dense Jungle: G2.213] [Huts: G5.43] [OCEAN: G13.492] [Panji: G9.47] [Rice Paddy: G8.22] [Swamp: G7.32] [Tetrahedrons: G14.51]

Landing Craft: (see LC) G12

Landing Schedule Record: T15.2

Large Rafts: E5.122

LATW (Light Anti-Tank Weapon; ATMM, ATR, BAZ, MOL-Projector, PIAT, PF/PFk, PSK): C13

Lax: A11.18 [while Clearing Jungle Path: G2.7] [German in ABtF: SSR9] [G.M.D. at Night: G18.2] [Human Wave: A25.23] [Inexperienced Personnel: A19.36] [non-elite Italians: A25.64] [Night: E1.62]

LC (Landing Craft): G12, H110 [Non-CC Attacks vs LC: G12.6] [Hit vs Passenger Vehicle/Gun: G12.65] [LVT in BRT: SSR11] [Tetrahedrons: G14.51]

LC Destruction Table: G12.6

LD (Counter abbreviation for leadership)

Leader Creation: A18.1 [G.M.D. Chinese receives +1 drm: G18.2] [Japanese NA: G1.62] [Mandatory Leadership: A10.72]

Leader Determination DR: T15.2

Leader Exchange Table/DR: [DYO: H1.82]

Leader Generation: [DYO: H1.8]

Leadership: A10.7-.72 [Δ: A.10] [AA Fire NA: E7.5] [Automatic Move Action towards broken non-Self Rallying ENEMY unit: S6.317, S6.3173] [Battle Hardening: A15.3, Finns: A25.71, Japanese: G1.41] [Berserk Leader: A15.41] [Berserk NA: A15.42] [CC: A11.141] [Command Influence Range: S16.4] [Company Leaders: S17.81] [Cowering NA: A7.9] [ENEMY Rout: S10.4] [Finns: A25.71][Fire Direction: A7.5-.531, S6.3174, S8.3] [Heroic Leader CMD DR NA: S16.32] [Heroic Leader Promotion at Mission End: S17.72] [Infantry OVR: A4.15] [Japanese: G1.41] [LLMC/LLTC: A10.2] [Location: A2.8] [Mandatory: A10.72, D3.45] [Mandatory Fire Direction: A9.4] [MC/TC: A10.21-.22] [MF Bonus: A4.12, A17.2] [Multiple Leader Command Influence: S16.42] [No Action: S6.3175] [PAATC: A11.6] [Partisan: A25.241] [Pin Effect: A7.831] [Promotion/Demotion at Mission End: S17.73] [Radio Contact: C1.2] [Spotted Fire: C9.3] [SW Recovery: A4.431-.44] [RePh: O11.6113, P8.6114, R9.6183, T15.6114] [Vehicle Command Influence from Personnel Leader: S16.43] [Vehicular FG: D6.64] [Wounded, RePh: O11.610, P8.610, R9.6101, T15.6112]

LF (Limbered Fire): C10.24 *[EXC Gun Caliber Size: C2.21]*

LG (Leader Generation factor): (see National Capabilities Chart [A./G.]) H1.8

Light AA: E7.51

Light Dust: F11.71

Light Jungle: G2.1

Light Mortar: C9.2

Limbered Fire: (see LF) C10.24

Limbering: C10.2 [Animal Pack: G10.32] [Limbered Fire: C2.21, C10.24]

Limited Stowage (AP/HE): C8.8

LL (extra Long Barreled Gun): C4.1

LLMC (Leader-Loss Morale Check; an additional MC caused by the elimination of a leader with a higher Morale Level than other friendly units in the same Location. The level of the required MC is equal to the strength of the negative leadership modifier of the affected leader; e.g., 0 is a NMC, -1 is a 1MC, etc.): A10.2 *[EXC Cavalry: A13.52] [EXC Climbing: B11.42] [EXC LC Passengers: G12.13]* [Leadership NA: A10.21] *[EXC Motorcyclist: D15.55]* [Prisoner NA: A20.54] [Swimming NA: E6.1] [Unbroken Japanese treat as LLTC: G1.62] [Wading NA: G13.421]

LLTC (Leader-Loss Task Check; an additional TC caused by the breaking of a previously unbroken leader with a higher Morale Level than other friendly units in the same Location. The level of the required TC is equal to the strength of the negative leadership modifier of the affected leader; e.g., 0 is a NTC, -1 is a 1TC, etc.): A10.2 [Human Wave NA: A25.231] [see all LLMC *Exceptions* listed above]

LMG (Light Machine Gun): [First Fire: A9.2-.21] [Light AA NA: E7.51] [Passenger Use: D6.1] [Wading: G13.4211]

Loading: D6.4 [Boat: E5.21] [CMD DR: S16.35] [FFMO/FFNAM: A4.6] [Green/Inexperienced: A19.31] [LC: G12.4, G13.443] [Minimum Move NA: A4.134] [Narrow Street: B31.125] [Pier: G13.731-.732]

© 2000 Multi-Man Publishing, LLC

Location (a hex as well as any of the following sub-divisions of that hex: sewer, upper or lower building or bridge level, pillbox, cave): A2.8 [Area Target Type Multiple Effects: C3.33] [Known enemy units: A4.14] [Quasi-Location: O.4C] [Rally Effects: A10.6] [Wire: B26.32]

Location of Vehicular Hits: C3.9 [Improbable Hits: C3.6]

LOF (Line of Fire): The LOS along which an attack has been traced

Long Range: [Activation: S5.32]

Long Range Fire: A7.22 [Assault Fire NA: A7.36] [ATR NA: C13.24] [ENEMY HW First Fire: S8.611] [FT: A22.1, 22.32] [MG: A9.4] [Ordnance (Interdiction/Encirclement): A10.532] [Ordnance NA: C3.52]

LOS (Line of Sight): A6 [Aerial Units: E7.25] [Atypical LOS: A6.12] [Caves: G11.5] [Paratroops: E9.31] [Pier: G13.71] [Pillbox: B30.2] [Railroad: B32.21] [Restricted LOS negates Entrench Action: S6.241] [Rice Paddy: G8.4] [Seawall: G13.622]

LOS Checks: A6.11 [Acquisition retained if target vehicle moves but remains in LOS: C6.51] [Bore Sight Location: C6.42] [Bounding Fire (Case C1 and C2): C5.3] [Concealment removal: A12.14] [exiting Convoy: E11.251] [Defensive First Fire vs moving vehicle (Case J^1 and J^2): C6.15] [An ENEMY unit allowed free LOS check: S.2] [Fortifications that set up HIP in Concealment Terrain: A12.33] [Freedom of Movement: E1.21] [Guns set up HIP not in Concealment Terrain: A12.34] [Illumination: E1.91] [Motion Status Attempt: D2.401] [choosing a Pre-Registered Hex: C1.73] [Road entry: A4.132] [vs Routing units: A10.5]

LOS Hindrance: (see Hindrance, LOS) A6.7

LOS Hindrance Blockage: B.10

Low Ammo B# (B(#)): D3.71 [Animal Pack: G10.41] [Pushed Gun: C10.3] [RePh: O11.6138, P8.6147, Q9.61425, T15.6138]

Low Crawl: A10.52 [Bamboo: G3.2] [Disrupted NA: A19.12] [ENEMY Rout: S10.2] [Fording: B21.43] [Night: E1.54] [No Quarter: A20.3] [Wire: B26.4]

Low Seawalls: G13.62

Low Visibility: (see LV) E3.1

LT: Light Tank

Lumberyard: B23.211

LV (Low Visibility): (see Hindrance, LV) E3.1 [Arnhem Bridge: R1.2] [Desert (DLV): F11.6] [Falling Snow: E3.711] [Fog: E3.311] [Mist: E3.32] [Night: E1.7] [in PB, Dawn/Dusk: QCG18] [Rain: E3.52] [Winter Camouflage: E3.712]

LVP (Location Victory Points): P8.2

M

M: Marsh overlay

M# (Manhandling Number; if in **bold** type [circled in black or red on the counter], an increased (un)hooking MP cost applies to the towing vehicle): (see Gun & Ammo Movement) C2.27 [Pushing: C10.3]

MA (Main Armament; the main weapon on a vehicle and usually the only vehicular weapon which can have a Multiple ROF. The Vehicle Listings cite each vehicle's specific MA as does the counter display. T = turreted; B = bow or non-turret mounted, F = Flamethrower; ## = Flamethrower FP. Note that Flamethrower designation, FP, and X# are red (D1.8). Flamethrower FP is underlined if its normal range is 2 hexes; otherwise, its normal range is one hex): D1.3 [AA Use: C2.6] [Disabled Recall: D3.7] [MG as: D3.53-.54] [SA: D1.34]

Machine Gun: (see MG) A9

Majority Squad Type: E.4

Malfunction: [Aerial MG: E7.223] [Bail Out: D6.24] [Fire Lane Cancellation: A8.221, A9.223] [dm German MMG/HMG: A9.8] [Gun: C2.28] [Low Ammo B(#): D3.71] [OVR: D7.17] [Residual FP: A8.221] [Secret Record: PB QCG9] [SW: A9.7] [Vehicular Weapons: D3.7]

Mandatory FG: A7.55 [Vehicular MG/IFE: D3.5]

Mandatory Fire Direction: A9.4

Mandatory Leadership: A10.72

Manhandling Number: (see M#) C2.27

Manhole: B8.1 [Debris: O1.6] [RB Cellars: O6.21] [Rubble NA: B24.4]

Map-Edge Markers: [RePh: O11.6053]

Map Group: P8.2

Map Section: P8.2, T15.2

Mapboard: A2 [ENEMY Vehicles: S9.32] [Entry: A2.5] [Selection and Features: S13]

Marker: Another term for a counter that indicates status, mode, condition, etc.

Marketplace: B23.73 [Cellar NA: B23.41]

Marsh: B16 [Drift NA: B21.121] [Dry Stream: B20.41] [Entrenchments NA: B27.1] [Low Crawl NA: A10.52] [M: Marsh overlay] [SW Possession: A4.43]

Massacre: A20.4 [NA in ABtF: SSR4] [in KGP: PCG4] [Japanese: G1.621] [in PB: QCG3] [Prisoners in RePh: T15.609]

MC (Morale Check): A10.1 [Failure: A10.3] [Panjis: G9.31] [Passengers on LC: G12.13]

Mechanical Reliability: D2.51 [Desert: F.4] [Platoon Movement: D14.21]

Melee (a condition existing between opposing Known enemy units occupying the same Location after being attacked in CC): A11.15 [CMD DR NA: S16.32] [ENEMY Advance: S11.4] [Infantry OVR: A4.152] [Mission End: S17.42] *[EXC Pillbox: B30.6]* [RePh: O11.601, P8.601, Q9.601, R9.601, T15.601] [Unarmed: A20.54] [Vehicle gets an Automatic Move Action: S6.308] [Voluntary Rout from Blaze Location NA: B25.4] [Withdrawal: A11.2] [Withdrawal with Vehicle/Cavalry/cyclists/PRC/Skiers: A11.7-.71]

MF (Movement Factor; a measure of movement capability for Infantry, Cavalry, and Horse-Drawn vehicles): A4.11 [Cloaking: E1.42] [Deep Snow: E3.733] [Snow Drift: E3.752] [Ground Snow: E3.723] [Mud: E3.64] [Rain: E3.54] [S?: S3.321] [Skis: E4.3] [Swimming: E6.2] [Weather: E3.9] [WW: QCG17]

MG (Machine Gun): A9 [Aerial: E7.41, vs AFV: C7.22] [Bore Sighting: C6.4-.44] [CH NA: C3.7] [Crest Status NA: B20.95] [Deliberate Immobilization NA: C5.7] [Leadership: A7.53] [by Pinned: A7.81] [TH vs AFV: A9.6] [TK vs AFV: A9.61, D3.53-.54] [Vehicular: (see Vehicular MG: D3.5-.54)]

Minefield: B28 [A-B: G14.53] [fully-tracked AFV TB: B28.61] [Beach: G14.54] [Blockhouse Rubble: R5.22] [Bombardment vs: C1.822] [in RB, may not be exchanged for Booby Trap: SSR RB15] [Clearance: B24.74] [Column: E11.534] [vs Concealed Stack: A12.11] [Culvert: O7.6] [Deep Snow: E3.732] [Dummy Minefield: B28.47] [FFNAM NA: A4.6] [FRIENDLY: S15.21] [Gunflashes: E1.83] [Known Minefields: B28.45] [Mission End: S17.44] [Narrow Street: B31.142] [RePh: O11.6042, P8.6042, Q9.6042, R9.6042] [Residual FP NA: A8.22] [Routing: A10.51] [vs Search: A12.33] [in RB, in a paved-road Shellhole hex: SSR RB5] [Straying: E1.53]

© 2000 Multi-Man Publishing, LLC

Minimum Move, Infantry: A4.134 [Bamboo: G3.2] [Wire NA: B26.4]

Minimum Move, Vehicular: D2.15 [Platoon Movement NA: D14.21] [Reverse: F.11]

Mired: D8.31 [LC: G12.2111] [Ocean Bog: T2.31] [Pathfinders: T1.4] [RePh: P8.6044]

Mission Selection: [Campaign: S17.22]

Mist: E3.32 [Falling Snow: E3.71] [in KGP: SSR KGP3] [Rain: E3.52]

Mist Density Change: [in KGP: SSR KGP3]

Mistaken Attack: E7.32 [Aerial Observation: E7.62]

Mistaken Fire: E1.76

ML (counter abbreviation for Morale Level): A10

MMC (Multi-Man Counter): A1.12

MMG (Medium Machine Gun): [AFPh: A4.41] [dm: A9.8] [Crest fire NA: B20.95] [First Fire: A9.2-.21] [Japanese Squad/HS use: G1.611] [Light AA NA: E7.51]

Mnvr: Counter abbreviation for Maneuver

Mobile (any vehicle which is not Abandoned, Bogged, Immobilized, Mired, Shocked, or Stunned): D.7

Moderate Dust: F11.72

Moderately Sloped Beach: G13.22

Modified TH#: C4.5

MOL (Molotov Cocktail): A22.6 [vs AFV: C7.344, C7.22] [DYO: H1.25] [vs Guns: C11.51] [Gunflashes: E1.84] [NA against LC: G12.611] [TK Case B: C7.22] [Partisans have MOL capability in SASL: S12.211]

MOL-P (Molotov Projector): C13.5, O10

Moon Phase: [DYO: E1.11]

Mopping Up (NA when No Quarter is in effect): A12.153 [Activation of ENEMY HIP units: S15.9] [Chinese vs Japanese NA: G18.7] [Gunflashes: E1.86] [NA in PTO in/after 6/42: G1.621] [Rooftop: B23.82] [Rowhouses: B23.71] [S? Activation: S3.31]

Morale: A10 [Gain: Commissar, Fanaticism, Battle Hardening, Berserk, Human Wave, Japanese leader, Hero; Loss: Encirclement *(EXC Japanese)*, Wound, Replacement, Friendly FFE] [LC Morale Level 8: G12.122] [Morale Level Ceiling: A.18] [Rating: A1.23]

Morale Check: (see MC) A10.1

Mortars: C9 [≤ 60mm must attack Infantry during ENEMY Fire Action: S8.2] [AFPh: A4.41] [Animal Pack: G10.2, G10.61] [Bamboo treated as Dense Jungle: G3.1] [Battalion Mortar: C1.22] [Buildings NA unless on Rooftop Location: B23.423] [Cave NA *(EXC Japanese light mortar)*: G11.83] [Crag: B17.4] [Dense Jungle NA: G2.24] [Direct Fire vs Indirect Fire: C.1, C9.1] [dm 76-82mm PP Reduction: C10.13, D6.2] [DYO OBA: H1.51] [Foxhole: B27.1] [Graveyard: B18.43] [IR: E1.931] [Jungle: G2.24] [OVR FP NA: D7.11] [Radio Contact: C1.22] [Removal from AFV: A9.8] [Roofless Factories: O5.45] [Rooftop: B23.85] [Scrounging: D10.5-.52] [S? Activation in building/bunker: S5.753] [SMC Usage: A21.13, C9.2] [SW Team fire without non-qualified use penalty: S17.141] [TK Tables NA: C7.345] [Towing 76-107mm: C10.1] [Trench: B27.51] [Wall/Hedge: B9.34] [in KGP, U.S. 60mm Mortars fire WP as if it were 1945: SSR KGP16]

Motion Fire (the FP of all vehicles is halved while in Motion): D2.42 [Automatic Action: S6.309] [En Portee NA: C10.54] [Motion AFV Fire: C5.35] [Panic Action: S6.211] [Personnel Leader Vehicle Command Influence: S16.43] [sM: D13.32]

Motion Status: D2.4 [Attempt: D2.401] [Convoy: E11.24] [Flail: B28.7] [Leadership: A10.7] [Offboard: A2.52] [Panic causes vehicle to stop: S6.211] [Reverse: D2.24, F.11]

Motorcycles: D15 [A-T Mines NA: B28.5] [Deep Stream NA: B20.46] [DYO: H1.45] [Hammada: F3.32] [Lumberyard pushing: B23.211] [Wire: B26.42]

Mounted Firer (halving of FP of Riders, truck/unarmored half-track Passengers, and Cavalry in attacks *[EXC Cavalry Charge]* on the IFT, or a +2 TH DRM for such units using ordnance): D6.1 [Boats: E5.4]

Move Action: S6.22 [Human Wave: S4.32]

Move/Advance: A.3 [Armored Assault: D9.31] [Mandatory Advance after PAATC: A11.6] [Stacked: A4.2]

Move, beginning: MF/MP dependent actions that must be declared at the beginning of a unit's move (or the move of > 1 unit moving together) prior to the expenditure of that unit(s) first MF/MP (i.e., CX (for full CX MF bonus)/Assault Move etc.)

Move, during: MF/MP dependent actions declared during a unit's move (or the move of > 1 unit moving together), at anytime during that unit(s) expenditure of MF/MP

Movement Factor: (see MF) A4.11

Movement, Guns & Ammo: C10

Movement, Infantry: A4 [Cave: G11.7] [Column: E11.5] [Detection: A12.15] [Fortified Building Location: B23.922] [Human Wave: A25.23] [Night: E1.5]

Movement Phase: (see MPh) A3.3

Movement Order: S9

Movement, Vehicle: D2 [Boats: E5][Convoys: E11.2] [LC: G12.2] [Night: E1.52] [Platoon: D14] [Railroad: B32.3] [River Entry, (see Amphibians: D16)]

Moving Vehicular Target: C.8

MP (Movement Point; a measure of movement capability for vehicles. If **bold** [red on counter], the vehicle has a high breakdown tendency (D2.5-.51). The superscript "t" indicates that the vehicle always expends MP as a truck): D1.1 [Bail Out NA: D6.24] [Deep Snow: E3.7331] [Snow Drift: E3.752] [Expending more MP than required: F11.74] [Ground Snow: E3.724] [Weather: E3.9]

MPh (Movement Phase): A3.3 [Boats on land: E5.21] [Water Movement: E5.3]

MPV (Modified Point Value): H1.211

MT: Medium Tank

MTR: (see Mortars) C2.2 [Gun Type: C2.22]

Mud: D8.23, E3.6 [Arid Climate: F11.8] [Bog: D8.23] [Irrigation Ditches: Q1.2] [Rice Paddy: G8.5]

Mudflat: B16.7-.72

Mule: G10.1

Multi-Story Building: B23.23 [Spraying Fire: A9.5]

Multiple Hits: C3.8, [ROF on white background means Multiple Hits possible: U.S. Multi-Applicable Vehicle Note R]

Multiple Immobilization: D8.11

Multiple ROF (Multiple Rate of Fire): (see ROF) A9.2, C2.24

Multiple Targets: [may use Infantry or Area target type: C3.41]

© 2000 Multi-Man Publishing, LLC

N

NA: Not Allowed

NA VCA: armament listed cannot fire through VCA

Nahverteidigungswaffe: (see sN) A11.622, D13.34

Napalm: G17.4 [DYO Chinese: G18.831]

Narrow Street: B31.1 [ABtF: SSR5] [Building-Road Hex: Q5.5]

Nationality Distinctions: A25, S1.1

Nationality Tables: S.1B

Naval Bombardment: G14.7

Naval OBA: (see NOBA) G14.6

NCC (National Capabilities Chart): A./G.

Near Miss (any hit vs a Gun/vehicle not resulting in a KIA/K result prior to any gunshield modification): C11.4 [Aerial Bomb: E7.421]

Night: E1 [Banzai: TCG10] [Barbed-Wire Fences: P3.2, Q7.2] [Cave: G11.96] [Dust: F11.78] [Jungle: G2.3] [KGP: PCG5] [OBA Observer: C1.6] [in PB: SSR PB14, PB12, QCG4] [RB: O11.6234]

Night Visibility Range: (see NVR) E1.1

NM (No Movement): C10.26

NMC (Normal Morale Check; requires a DR ≤ the current Morale Level of the unit—even if the unit is currently broken or suffering from a reduced Morale Level. Leadership modifiers can apply to this DR): A7.303

Nml: counter abbreviation for Normal

No Fire: A8.4, C5.64

No IF (counter abbreviation that indicates a Gun cannot use Intensive Fire): (see Intensive Fire) C5.63

No Man's Land: O11.2, P8.2, Q9.2 [RePh: O11.6051, P8.6051, Q9.6051]

No Move: (see NM) C10.26, E1.21 [in PB: QCG4, Q9.6058]

No Quarter: A20.3 [ABtF: SSR4] [in PB, British have declared: SSR PB17] [Chinese vs Japanese: G18.7] [NA in North Africa: F.5] [in PTO in/after 6/42: G1.621] [in RB, is in effect: SSR RB14]

NOBA (Naval OBA): G14.6 [Heavy Surf adds a +1 drm to its Accuracy dr: G13.449] [Tarawa: TCG3]

Non-Beach Shoreline: G13.41

Non-Qualified Use: A21.13

Non-Stopped (a vehicle, during its MPh, that has not expended a Stop MP since its last Start MP expenditure): C.8

Normal: [Night: E1.63]

Normal Range: A1.22 [MG: A9.1] [Ordnance: A10.532, C2.25]

North Africa: F11.2

NT (Non-Turreted): D1.33 [Heroic CA Change: A15.23] [1MT: D1.322]

NTC (Normal Task Check; Task Check requiring a DR ≤ the current Morale Level of the unit—even if the unit is suffering from a reduced morale. Leadership benefits apply): A7.305 [Landing Injuries: E9.42]

NVR (Night Visibility Range): E1.1-.17 [BRT: TCG10] [Concealment: E1.33] [ENEMY Advance into CC/Melee: S11.4] [Jungle: G2.3] [RB Roofless Factories: O5.48]

NWE: North-Western Europe

O

O: Orchard overlay

OB (Order of Battle; the forces which compose one side in any scenario as defined by the scenario card): O11.2, P8.2, Q9.2, R9.2, T15.2

OBA (Offboard Artillery): C1.1 [ABtF: RCG6] [BRT Sand: T3.2] [Cave: G11.84] [Column: E11.533] [Cowering NA: A7.9] [Dust: F11.791] [DYO: H1.5-.53] [DYO Chinese: G18.82] [DYO Japanese: G1.662] [ENEMY: S8.7] [IR: E1.931] [Heavy Payload: C.7] [KGP: PCG15] [LC: G12.63] [vs Mines: B28.62] [No Depletion Numbers: C8.9] [RB: OCG6] [Retained: OCG10, PCG22] [Shellhole Creation: B2.1] [SMOKE: C1.71] [U.S. 60mm MTR: US Ordnance Note 1] [vs Wire: B26.52]

Objective Hex: P8.2

Observer (a Good Order leader with radio who directs OBA): C1.2, C1.6 [Creeping Barrage: E12.77] [Observation Plane: E7.6] [OP Tank: H1.46-.465]

Obstacle: A6.2

OC: Ocean overlay

OCEAN: B21.14, G13.12 [BRT Ocean: T2.1]

Offboard: anything taking place outside the parameters of the scenario defined Mapboard Configuration

Offboard Actions: A2.52 [Movement DR NA while offboard: E1.531] [Starting MP Exclusion: D2.12]

Offboard Artillery: (see OBA) C1.1

Offboard Observer: C1.63 [Heat Haze: F11.624]

Offboard Setup: A2.51 [Starting MP Exclusion: D2.12] [on map terrain not in play: SSRs ABtF12, KGP6, PB2, RB17, T14.1]

OG: [counter and chart abbreviation for Open Ground: B1] [Open Ground overlay]

Olive Grove: B14.8, F13.5

One Lane Bridge: B6.43-.431 [Narrow Street: B31.11] [Sunken Lane: B4.43]

One Man Turret (1MT): D1.322 [OT: see appropriate Vehicle Notes]

OP Tanks (Observation Post Tanks): C1.2, C1.6, H1.46-.465

Open Ground (OG; for Concealment Gain/Loss, Dash, Interdiction, and Rout determination, an Open Ground hex is any hex in Normal Range in which any Interdictor could apply the -1 FFMO DRM): A10.531, B1 [Dash: A4.63] [Deep Snow: E3.65] [Desert: F1] [for FFMO: any hex in which no positive TEM or LOS Hindrance applies: A4.6] [Ground/Deep Snow: E3.722] [Irrigation Ditches: Q1.2] [Mud: E3.65] [Overrun: D7.15] [Partial Orchard: Q2.3] [Railroad: B32.21]

Open Topped: (see OT) D1.23

Opportunity Fire: A7.25 [Assault Fire NA: A7.36] [Berserk NA: A15.432] [instead of an ENEMY Move Command: S9.2] [Thrown DC: A23.62] [Vehicles NA: D3.3]

Optional Armament: H1.41, D1.84, QCG7 [ABtF: RCG15] [DYO: H1.12, H1.41, PCG8] [S? Activation: S5.713]

Optional Rules: A.4, E.1 [Alpine Hills: B10.211] [Battlefield Integrity: A16] [Cavalry: footnote A19] [Gyrostabilizer Use: D11.1] [IIFT: A7.37] [PF Possession: C13.311] [Reverse Motion: F.11] [Sz: D11.211] ["?": A12.16 (see footnote A18)]

Orchard (in season April thru October): B14 [Building-Orchard Hex: Q5.4] [Irrigation Ditch-Partial Orchard: Q1.2] [O: Orchard overlay] [Partial Orchard: Q2] [Ramp: R2.2] [RePh: R9.6092] [Slope-Orchard Hex: Q5.6]

© 2000 Multi-Man Publishing, LLC

Orchard Road: B14.6

Ordnance (any weapon which must score a hit on a To Hit Table before rolling again on the IFT or To Kill Table to resolve that hit): C.2 [Area Fire: C.4] [vs Boats: E5.52] [Cowering NA: A7.9] [DYO: H1.3] [ENEMY Fire Action: S8.2] [Listings: Chapter H] [Motion/Non-Stopped Fire: D2.42] [Non-qualified use: A21.13] [Normal Range: A10.532] [Residual FP: A8.25] [SW fire before Inherent FP: S8.22] [vs Unarmored Vehicle: D6.71] [Using IFE: C2.29]

Original DR/dr: a DR/dr prior to any applicable modification by DRM/drm of any kind

OT (Open Topped; AFV lacking full roof armor, noted by a white overhead depiction on the counter): D1.23 [Airburst: B13.3] [Arnhem Bridge: R1.22] [BU Firing Restrictions: D5.3] [Vulnerability to elevation/Air Bursts: D5.31]

Out-of-Gas DR: SSR KGP13

Out of Season: [BRT Palm Trees: T4.1]

Outside (Not in a building or pillbox Location): S5.761

Overcast: E3.5 [Falling Snow: E3.71] [NVR: E1.11]

Overlays: (Abbreviations on overlays are: B: Brush) Be: Beach, D: Deir, dx: Overlay for Deluxe ASL boards, E: Escarpment, Ef: Effluent, G: Grain, H: Hillock, Hi: Hill, M: Marsh, O: Orchard, oc: Ocean, OG: Open Ground, OW: Orchard/Woods, P: Pond, RP: Rice Paddy, RR: Railroad, S: Sand, SD: Sand Dune, St: Stream, W: Wadi, Wd: Woods, X: Building): A2.7, F12, G.9A [Beach: G13.1] [Bedouin Camp: F12.45] [Desert: F.1D] [Escarpment: F12.5] [Mapboard Selection and Features: S13.24] [Mausoleum: F12.44] [Monastery: F12.43] [Ocean: G13.1] [Overlapping: G.9B] [PTO Terrain: G.9] [Railroad: B32.2] [Temple: G.9F]

Overrun: (see OVR) [Infantry: A4.15] [Vehicular: D7]

Overstacking: A5 [Cellars: R4.12] [Concealment Loss: A12.14] [ENEMY: S6.223] [Escape in RePh: Q9.606] [Location: S6.307] [MG vs: A9.4] [Prisoners: A20.51] [Prohibited Location: S9.26] [Rout: A10.51] [Trailers To Hit: C10.41]

Over The Wall TC: TCG16

OVR (Overrun): D7 [Armor Leader: D3.44] [BU CT AFV: D5.2] [Buildings/cellars: B23.41] [Concealed Units: A12.41] [Convoy NA: E11.2] [Crest: B20.92] [Dozer: G15.26] [Huts: G5.42] [Infantry Overrun: A4.15] [LC NA: G12.612] [Lumberyard NA: B23.211] [Motorcycles: D15.43] [Random SW Destruction: A9.74] [Unloading NA: D6.5] [Woods-Road: B13.32]

OVR Prevention: C5.64 [Japanese: G1.13]

OW: Orchard/Woods overlay

Ox and Bucks (in PB, units from the 2nd Oxfordshire and Buckinghamshire Light Infantry): SSR PB14

P

P: Pond overlay

P. (chart abbreviation for Possible)

P. Sh (Possible Shock): C7.41 [LC NA: G12.602]

PAATC (Pre-AFV Advance/Attack Task Check; NA to berserk/Fanatic/Japanese/SMC): A11.6, G1.62 [vs Armored Cupola: O.7] [DC Placement: A23.3] [ENEMY Advance into CC/Melee: S11.4] [1 PAATC: Chinese, Non-Elite Italians, Inexperienced, Allied/Axis Minors] [OVR vs "?": A12.41] [CC Reaction Fire: D7.21]

Pack/Unpack: G10.3 [Pack-TI: G10.11]

Paddlers, Untrained: E5.34

Palm Debris: T4.2

Palm-Debris-Palm: T4.23

Palm Trees: G4 [BRT Palm Trees: T4.1]

Panic: S6.21-.213, S16.3

Panjis: G9 [on Beach: G14.55] [Japanese MC: G1.13]

Panzerfaust: (see PF/PFk) C13.3

Panzerschreck: (see PSK) C13.48

Paratroop Landings: E9 [Pre-1942 Germans: E9.7] [Cloaking NA: E1.41] [Dense Jungle: G2.213] [DYO: H1.204] [DYO purchase for Japanese: G1.664] [Japanese MC: G1.13] [FT NA against descending Paratroops: A22.33] [Ocean: G13.492] [Panji: G9.47] [Rice Paddies: G8.22] [Swamp: G7.32] [Tetrahedron: G14.51]

Partial Kill (one defending unit in a CC attack suffers Casualty Reduction): A11.11

Partial Orchards: Q2, R8 [Irrigation-Ditch-Partial-Orchard: Q5.2] [Stream-Partial-Orchard Hex: Q5.3]

Partially Armored Vehicle (This unit is treated as an armored target unless specifically attacked through a non-armored Target Facing inclusive of Elevation Advantage that reduces its CE DRM to +1): D1.22, D5.311 [AF NA to TK#: C7.11] [Indirect Fire: C1.55, C7.345] [Spraying Fire: A9.51] [Unprotected Crews: D5.311]

Partisans: A25.24 [Commissar: A25.22] [DYO: H1.27] [ENEMY: S12.21] [Massacre: A20.4] [Panic Action: S6.21] [Stealth: A11.17]

Passage: T6.4

Passengers: (see PRC) D6.1 [Armored Halftrack: D6.6-.66] [Boats: E5.123] [CC: A11.52, A11.611] [CMD DR: S16.34] [CE: D9.1] [Collateral Attacks: D.8] [FG: A7.51, D6.64] [Glider: E8.12] [Indirect Fire: C1.55] [LC: G12.12, G12.45] [Minefields: B28.43] [Mounted Firer: D6.72] [OVR FP: D7.11] [Stacking: A5.3] [Survival: D5.6, D6.9] [Truck: D6.7-.72] [Vehicular Target Hits: D.6]

Path: B13.6 [Jungle: G2.7] [Lumberyard NA: B23.211]

Pathfinders: T1.1 [Marine Cloaking NA: TCG5]

Paved Road: B3.1 [Emplacement NA: C11.2] [Manhandling: C10.3] [Railroad: B32.11] [Runway: B7] [in RB, Trenches and A-T Ditches may exist here if Shellholes exist: SSR RB5]

PB (Pegasus Bridge): SSR PB4

PBF (Point Blank Fire): A7.21 [vs Aerial Target is NA: E.5] [AFV in CC NA: A11.62] [Arnhem Bridge NA: R1.121] *[EXC Canister: C8.41]* [CC NA: A11. l] *[EXC DC: A23.1] [EXC FT: A22.1]* [Hut Flame: G5.6] [MOL: A22.611] [Ordnance NA: C3.51] [Sewer: B8.3]

Pedestrian Access Points: [Arnhem Bridge: R1.4]

Perimeter: O11.2 [Determination: O11.605] [Markers: O11.6054]

Personnel (all SMC and MMC counters, including those mounted as Cavalry or Passengers/Riders, but excluding inherent crews since they are not in counter form): A1 [Personnel Types: A1.25]

Personnel Escort (any unbroken, unpinned, armed Personnel MMC in the same Location as a vehicle providing it with a favorable DRM when attacked in CC): A11.51

Personnel Types: (see Class, Personnel Types) A1.25

PF/PFk (Panzerfaust/Panzerfaust klein): C13.3 [Backblast: C13.8] [ENEMY: S8.23] [Height Restrictions: C13.8] [HE Equivalency: C8.31] [KGP Setup: PCG13] [in KGP, U.S. Captured PF: SSR KGP15] [in PB, Reduced Number: QCG12, SSR PB22] [Residual FP NA: C13.31]

© 2000 Multi-Man Publishing, LLC

PFPh (Prep Fire Phase): A3.2 [Berserk NA: A15.432] [Cowering: A7.9] [Creeping Barrage: E12.73] [ENEMY Actions: S6.1] [ENEMY FG: S8.51] [SMOKE placement by ordnance/OBA: C8.5]

PIAT (Projector Infantry Anti-Tank): C13.6 [Gunflash NA: E1.88] [HE Equivalency: C8.31] [Passenger Use: D6.1]

Piers: G13.7 [Betio Piers: T9.2] [SSR BRT4]

Pillbox: B30, J2.16 [AP vs: B30.35] [Backblast: C13.8] [Blaze: B25.4] [Blockhouse: R5.1] [Bombproof: T6.5] [BRT Pillboxes: T6.3] [Bunker: B30.8] [Cave: G11.932] [Control: B30.91; in BRT: TCG15] [Dozer vs: G15.21] [Eliminated: B30.92] [FG NA: A7.5] [Japanese: G1.632] [Passage: T6.4] [Rally DRM: A10.61] [Residual FP: A8.22] [Revealed at Night: E1.16] [Stacking: A5.6] [firing Starshell NA: E1.921]

Pin: (see Pin NA) A7.305, A7.8 [AFV: A7.82] [AFV Riders Bail Out: D6.23-.24] [Assault Fire: A7.36] [Broken leader: A10.2] [Bypass: A4.33] [Clearance NA: B24.7] [Collapsed Hut PTC: G5.5] [Concealment Loss: A12.14] [Fire Lanes: A9.22; Cancellation: A9.223] [Hampered Flame: B24.721] [Hazardous Movement: A4.62] [Intensive Fire: A7.81] [Leadership: A7.831] [Leader's Command Influence Range: S16.4] [MG/IFE: A7.81] [Minimum Move: A4.134] [Ordnance: C5.4] [PAATC: A11.6] [Pathfinders: T1.1] [PF Check: C13.31] [Search NA: A12.152] [Sniper: A14.3-.4] [Spotter: C9.3] [Voluntary Rout NA: A10.711]

Pin NA: A7.8 [Berserk: A15.42] [Cavalry: A13.52] [Climbing: B11.4] [Fording: B21.41] [Hero: A15.2] [Human Wave: A25.231] [Japanese SMC: G1.4] [LC Passengers: G12.13] [Motorcyclist: D15.54]

Pine Woods: B13.8-.82, P1

Pivot (act of changing Covered Arc in player's own PFPh, DFPh or AFPh independent of Motion/Moving status): C5.11, C5.2 [if Immobilized NA: D8.1] [if Shocked NA: C7.42]

Placed DC: A23.3 [vs AFV: C7.346]

Placement Hex (the hex ADJACENT to the target occupied by the unit Placing a DC): A23.3

Platoon: (see Pltn) O11.2, P8.2, Q9.2

Platoon Movement: D14.2 [Armor Leader's Command Influence Range: S16.4] [CMD DR for entire formation: S16.32] [Convoys: E11.2] [all ENEMY Vehicles in a Platoon use the same Move Command: S9.2] [ENEMY Vehicles: S9.33] [Radio-equipped AFV: D14.23] [Vehicle Dust: F11.741]

Player Turn (The eight consecutive phases [RPh-CCPh] which are half of one Game Turn. The half portion of each Game Turn in which a player may move his forces is his Player Turn): A3

Plentiful Ammunition, OBA: C1.211 [DYO: H1.52] [U.S.: A25.33]

Plowed Fields (April & May only): B15.6, E3.65

Plowed Roads (in Snow, roads are considered unplowed unless specified by SSR): [Infantry/Cavalry Movement in Deep Snow: E3.733] [Infantry/Cavalry Movement in Ground Snow: E3.723] [treated as OG if unplowed: E3.65] [Road Network: S13.2312] [Vehicular Movement in Deep Snow: E3.7331] [Vehicular Movement in Ground Snow: E3.724]

Pltn (platoon): O11.2, P8.2, Q9.2, R9.2

Pneumatic Boats: E5.12

Pocket: O11.2 [RePh: O11.6056]

Point Attack, FB: E7.402

Point Blank Fire: (see PBF) A7.21

Point Blank Range: C6.3 [Arnhem Bridge NA: R1.12]

Pond: B21.13 [Flooded Stream: B20.44] [P: Pond overlay]

Pontoon Bridge: B6.41 [HE Attack vs: B6.33]

Port of Betio: T9.

Portage: (see PP) A4.4 [Berserk: A15.431] [Boats: E5.2] [Broken: A10.4] [Cavalry: A13.33] [CX: A4.52] [dm Mortars: C9.2] [IPC & SMC additions: A4.42] [Motorcycles: D15.2] [Riders: D6.2] [Sewer: B8.4] [Swimming NA: E6.4] [Vehicle Portage: D6.1-.2] [Voluntary Rout: A10.711] [Wounded: A17.2]

Position DR: C7.346 [DC vs AFV: A23.5]

Possession, SW: A4.43, J2.12

PP (Portage Points): A4.4 [Convoy: E11.3] [CX IPC: A4.52] [Gliders: E8.1] [IPC: A4.42] [Vehicular Capacity: D6.1-.2] [Vehicular PP Reduction: C10.13]

PRC (Passengers/Riders/Inherent Crew): A5.3 [Collateral Attack: D.8] [CMD DR: S16.34] [Double Time NA: A4.5] [in PB, Freedom of Movement: QCG4] [Heat of Battle NA: A15.1] [LLMC/LLTC: A10.2] [Near Miss: E7.421] [disembarking in Panji: G9.423; embarking: G9.51] [Personnel Leader Command Influence: S16.43] [Residual FP vs: A8.222] [TPBF vs: A7.211]

Pre-Registered Fire: C1.73 [Barrage: E12.1, E12.2] [Battery Access: C1.211] [Creeping Barrage: E12.71] [DYO Cost: H1.53]

Prep Fire Phase: (see PFPh) A3.2

Printed Rubble: O3, T5.1

Priority List: (see S6.311, S7.1, S8.1, S8.12, S9.22 for examples of Priority Lists)

Prisoners: A20 [Cave: G11.98] [ENEMY Guard Automatic Action: S6.303] [Forced Labor: A20.5] [Majority Squad Type: E.4] [Panji: G9.56] [RePh: O11.608, P8.608, Q9.608, R9.608, T15.609] [Sequential CC: A11.33]

Prohibited Location: [ENEMY Activated unit: S5.61, S9.26] [S?: S3.323]

Promotion (see Field Promotion): [RePh: O11.611, P8.611]

Promotion Out of the Ranks: O11.6114, P8.6115

PSK (Panzerschreck): C13.48 [Height Restrictions: C13.8] [HE Equivalency: C8.31] [S? Activation in non-factory building/pillbox: S5.754] [SW Team fires without non-qualified use penalty: S17.141]

PTC (Pin Task Check): (see Pin NA for PTC exceptions) A7.305 [Collapsed Hut: G5.5]

P TCA (Port Turret Covered Arc): Polish Vehicle Note 2

PTO Terrain: G.1

Pushing: (see Gun & Ammo Movement) C10.3 [Minimum Move NA: A4.134] [Wrecks: D10.42]

Q

QRDC: Quick Reference Data Card

Quasi-Location: O.4C [Factory Rooftop Access Points: R.3B] [Towers: B34.43]

QSU (Quick Set-Up): C10.23

R

® (Radioless Symbol): (see Radioless AFV) D14

R# (Repair Number or Rear MG): A9.72 [Hull Rear MG: D1.81] [Turret Rear MG: D1.82] [Ordnance: C2.28] [Vehicular Armament: D3.7]

Radio: C1 [AFV: D14] [Captured Use NA: A21.1] [Cave: G11.837] [in KGP: P8.4 CG15] [PTO: G.7] [in RB: O11.4 CG6]

Radio Contact: C1.2 [Aerial Observers: E7.6] [PTO +1 DRM: G.7]

© 2000 Multi-Man Publishing, LLC

Radioless AFV: D14 [Convoy: E11.252] [ENEMY Vehicles: S9.332] [Platoon Movement: D14.2]

Rafting: E6.41 [FRIENDLY River Assault: S13.61]

Railroads: B32

Railroad Crossing: B32.4

Railway Embankment: O2

Rain: E3.51 [Dust: F11.77] [Hut Flame: G5.61] [Slope Hexside: P2.54, Q3.54] [Water Shortage: RCG21]

Rally: A10.6 [Berserk: A15.4] [Commissar: A25.221-.222] [Fate—Extreme Winter: E3.742] [Field Promotion: A18.11] [Japanese Leader: G1.41] [Leader: A10.71] [Rally Terrain DRM Bonus NA in Lumberyard: B23.211] [Pillbox: B30.5] [RePh: O11.6032, P8.6031, Q9.603, R9.603, T15.6031] [Roof: B23.83] [Self-Rally: A10.63, OCG17, PCG18] [Terrain Bonus: A10.61]

Rally Phase: (see RPh) A3.1

Ramp: G12.41, G12.674 [Arnhem Bridge: R2]

Random Direction: B.8

Random dr: Selects a single option/unit; there can be no "ties" (i.e. unlike a Random Selection dr)

Random Location DR: E.3 [Sniper: A14.2] [SR Placement: C1.31]

Random Selection: A.9, J2.11 [PF effects: C13.31] [Sniper: A14.2]

Random SW Destruction: A9.74 [CC: A11.13] [Towed Guns: C10.1]

Range: A1.22, A7.21, A7.212, C5.5 [Aerial: E.5] [Human Wave: A25.2321] [MG Mandatory Fire Direction: A9.4] [Maximum Hindrance: A6.7] [Normal Ordnance: A10.532] [Ordnance Limits: C2.25] [vs TK#: C7.24] [to Vertex: C.5C] [of Zero: see Firing Within Hex]

Rarity Factor: (see RF) H1.3

Rate of Fire: (see ROF) A9.2, C2.24

RB Cellars: O6 [NA beneath printed Rubble: O3.3]

RCL (Recoilless Rifle): C12 [Field of Fire: A9.21] [Gun Type: C2.22] [Height Restrictions: C13.8]

Reaction Fire: D7.2 [Bypass: A12.151] [Street Fighting: A11.8]

Rear MG: (see RMG) [Hull: D1.81] [Turret: D1.82]

Rearming: A20.551 [Mission End: S17.623]

Recall: D5.341 [Aircraft: E7.24] [BRT: SSR12] [CMD DR NA: S16.32] [Convoy: E11.253] [Disabled MA and SA: D3.7] [Friendly Board Edge in PB: SSR PB11] [in KGP, German vehicles: SSR KGP12] [LC: G12.111] [LC during Seaborne Assaults: G14.232] [1MT: D1.322] [OP Tank MA NA: H1.461] [RePh: Q9.6141, R9.6141] [Seaborne Assault/Evacuation side NA: G14.33] [Sighting TC: E7.31] [Sniper: A14.3]

Reciprocity (LOS): A6.5

Recombining HS: A1.32 [Carrier HS Crew: D6.82] [ENEMY: S7.5] [Horses: A13.32] [Mission End: S17.75] [Motorcycles: D15.44] [Prisoners: A20.51] [RePh: O11.6111, P8.6111, Q9.6111, R9.6111, T15.6111] [WW: QCG17, RCG19]

Recon: E1.23 [vs Cave: G11.33] [in KGP: P8.022] [in RB: O11.022] [Trip Flares: E1.953, G.8C]

Recovery, SW: A4.44 [Automatic Action: S6.310, S6.315] [Broken NA: A10.4] [Cavalry NA: A13.33] [+1 if CX: A4.51] [ENEMY: S7.3] [Human Wave: S4.37] [Jungle, Kunai, or Bamboo Location +2 DRM: G.5] [Motorcycle: D15.7] [+1 at Night: E1.56] [PRC NA: D6.31] [Tunnel: B8.63]

Red Beach: [Red Beach One] [Red Beach Two] [Red Beach Three] T15.2

Reduction: (the changing of a squad to a HS due to casualties incurred) (see Casualty Reduction) A7.302

Reef: G13.43 [DYO: G13.91]

Reinforcements: [DYO: H1.7, H1.84] [ABtF: RCG9] [RB: OCG9] [OB-Given in RePh: Q9.615, R9.615] [in PB, PF Reduced Number: QCG12, SSR PB22] [KGP: P8.4, CG7]

Reinforcement Group: (see RG) O11.2, P8.2, Q9.2, R9.2

Removal: [Panji: G9.7] [RePh: O11.615, P8.6145, Q9.61423]

Removal, SW (a crew taking with it a vehicle's MG/MTR armament as it voluntarily abandons that vehicle): D6.631 [LC: G12.82, G12.83]

Removal, Wreck: D10.4-.42 [NA in ABtF: SSR14] [NA in BRT: SSR15] [Elimination in RePh: P8.615] [Sunken Lane: B4.43]

Repair: [ENEMY: S7.4] [RePh: O11.6132, R9.6142, T15.6132] [SW: A9.72] [Vehicular Armament: D3.7]

RePh (Refit Phase): O11.2, P8.2, P8.6, Q9.2, R9.11 R9.2, R9.6, T15.11, T15.6

Replacement (the changing of a Personnel unit to another Personnel unit with at least one lesser number in one Strength Factor and no greater number in any other Strength Factor; an MMC's Class must also decrease): A1.3, A19.13

Replacements: S17.8 [ABtF: R6]

Replenishment: E10.3

Reserve: O11.6194b, PCG7a

Residual FP: (see Residual FP NA) A8.2, J2.23 [Aircraft: E7.4] [Betio Piers: T9.2] [vs Bypass: A8.2, J2.23] [Caves: G11.82] [Dash: A4.63] [Dust: F11.794] [Factory Rooftop Access Points: B23.88] [not modified by LV hindrance: E3.1] [LC: G12.613] [Narrow Street: B31.131] [Ocean: T2.4] [Partial Orchard considered Open Ground: Q2.3] [Rejected Hex Entry: A12.15, B23.922] [Spraying Fire: A9.52] [Surviving PRC: D5.6]

Residual FP NA: [vs AFV except Collaterally: A8.222] [AP/APCR/ APDS/ATR: A8.2, C8.31, C13.24] [Boresighting: A8.26] [Collateral Attack: D.8] [Dud: A8.2] [ENEMY entry NA if ≥ 4 unless in/ADJACENT to a FRIENDLY Controlled VPO: S9.26] [Intensive Fire: A8.25] [Minefield: A8.22] [OBA: A8.22] [PF/PFk: C13.31] [in a Pillbox Location: A8.22] [if keeping ROF: A8.23] [S? entry NA if ≥ 4 unless in/ADJACENT to a FRIENDLY Controlled VPO: S3.322] [Snap Shot: A8.223] [Sniper: A14.3]

Rest and Refit: S17.9

Restricted Fire: (see RFNM) C10.25

Restricted Terrain (a Location from which a Heavy Weapon [HW] cannot fire): S6.3131

Retained: O11.2, P8.2, Q9.2, QCG16, R9.2, S17.31, T15.2 [ABtF: RCG10] [RePh: T15.6081]

REV (counter abbreviation for Reverse): D2.2

Reverse Motion: D2.24, F.11 [LC: G12.22]

Reverse Movement: D2.2 [Bocage/Breach NA: B9.54-.541] [Convoy NA: E11.22] [LC: G12.22] [Minimum Move: D2.15, F.11] [OVR NA: D7.13] [Woods Entry: B13.41]

Reverse Slopes: G14.66

RF (Rarity Factor): H1.3

RFNM (Restricted Fire, No Movement): C10.25

RG (Reinforcement Group): O11.2, P8.2, Q9.2, R9.2 [Purchase Record: O11.2, P8.2] [RePh: R9.617] [Strength, Quality, Weapons, and Leaders: O11.620, P8.620]

Rice Paddies: G8 [RP: Rice Paddy overlay]

© 2000 Multi-Man Publishing, LLC

Rider (Personnel transported on the outside of an AFV, Cavalry, or a motorcyclist): (see PRC) D6.2-.24 [Amphibian: D16.7] [Bocage NA: B9.54] [Carrier: D6.81] [CC: A11.611] [Hero with AAMG: D5.34] [LC: G12.14] [Mounted Fire: D6.2] [Partial Orchard: Q2.31, R8.31] [Survival: D6.9] [Wall/Hedge TEM NA: B9.3] [Woods TB NA: B13.43]

Right of Inspection: [Before Play: A2.9] [Caves: G11.52] [During Play: A12.16] [Pillbox: B30.7]

River: B21.12, G13.12 [in RB: SSR RB4] [Vehicle Entry, see Amphibians: D16]

RMG (Rear MG): D1.81 (hull) & D1.82 (turret) [CC: A11.62] [NA in OVR: D7.11]

Rmvl (Counter abbreviation for Removal): D6.631

Road: B3, F9.3 [Building-Road Hex: Q5.5] [Dash: A4.63] [Effect on Open Ground: B1.11] [Elevated: B5] [Entrenchments NA on Paved, Sunken, or Elevated Road: B27.1] [FFMO: A4.132] [Ground Snow: E3.723] [Gun Emplacement NA on Paved Road: C11.2] [Mapboard Entry: A2.51] [unpaved roads exist for Movement/Straying DR: E3.6] [Panji Covered hexside: G9.54] [Off-Map Road SSRs: ABtF 12; KGP 6; PB2; RB17; T14.1] [PTO Terrain: G.1A] [Railroad: B32.11] [Sand penalties NA for MF/MP: T3.1] [Vehicular Passing Penalty: D2.14] [Vehicular Sized Entrance: R3.2]

Roadblock: B29 [Clearance: B24.7, B24.76] [Narrow Street: B31.141] [Railway Embankment NA: O2.2] [IN a gully or Culvert hexside: SSR RB5] [Revealed at Night: E1.16] [TEM NA for Ground Support: E7.4; for PRC: B9.3]

Road Intersections: S9.35

Rocket OBA: C1.9 [DYO: H1.51]

ROF (Rate of Fire; any weapon which can attack more than once in the same phase due to an encased ROF number): A9.2, C2.24 [Aerial Combat: E7.222] [AFPh: A4.41, A7.25, C5.2] [Area Target Type: C3.33] [Captured Weapons: A21.12] [Case A TH DRM: C5.12] [Conditional ROF: C2.5] [ENEMY Fire Action: S8.13] [Final Fire: A8.41] [IFE: C2.29] [Intensive Fire: C5.6] [LOS Checks: A6.11] [Mandatory FG: A7.55] [Pinned: A7.81] [Residual FP: A8.23] [SMC with Mortar: C9.2] [Special Ammo use: C8.1] [Subsequent First Fire: A8.3] [Sustained Fire: A9.3] [Target Acquisition: C6.54] [White background means MA can use Multiple Hits: U.S. Multi-Applicable Vehicle Note R]

Roofless Factory Hex: O5.4 [Each hex of a Gutted Factory is considered Roofless: O5.52]

Rooftop: B23.8 [Command Bunker: T6.12] [Concealment in Towers: B34.5] [vs Indirect Fire: B23.32] [LOS on Factory Rooftop: O5.43] [Single Hex Two-Story Building NA: B31.3] [Steeple NA: B31.2] [SSRs: ABtF 11; PB 7; RB 3] [Towers NA: B34.21, T7.21]

Routing: A10.5 [Caves: G11.77] [from Cave Complexes: G11.73] [Concealment: A10.533] [Crest Infantry: B20.96] [Desert: F.1C] [ENEMY: S10] [ENEMY Overstacking: S6.223] [FFE: C1.51] [onto LC/Amphibian during Evacuation: G14.41] [Night: E1.54] [Offboard NA: A2.6] [Paratroops NA: E9.5] [Passengers: D6.1] [Pillbox: B30.5] [Rooftops: B23.83] [Rowhouse: B23.71] [wearing Skis: E4.33] [Surrender: A20.21] [Towers: B34.6] [Tunnels: B8.62] [Unprotected Crews: D5.311] [Voluntary Leader: A10.711] [Wire: B26.41] [WW: QCG17, RCG19]

Rout Phase: (see RPh) A3.6

Rowhouse: B23.71 [Arnhem Bridge: R1.11] [Cellars: R4.2, R4.3] [Factory Interior Walls: O5.3; R3.3] [Spreading Fire: B25.62] [VPO: S14.32]

RP: Rice Paddy overlay

RPh (Rally Phase): A3.1

RR: [Railroads] [Railroad overlay]

RR Hexside (a hexside that is crossed by a Railroad): B32.1

RST (Restricted Slow Traverse): D1.321

RtPh (Rout Phase): A3.6, F.1C, S7 [OBA during: C1.51]

Rubble: B24 [ABtF: SSR21] [Arnhem Bridge: R1.12, R1.31] [Blockhouse: R5.2] [BRT Towers: B34.2] [AFV Building Entry: B23.41] [Cellars: O6.6, R4.6] [Clearance: B24.7, B24.71] [Debris: O1.4] [DC: A23.71] [Dozer vs Single Story House: G15.25] [Entrenchments NA: B27.1] [Factory Interior Wall: O5.34, R3.34] [Narrow Street: B31.126] [OCEAN: G13.493] [Printed Rubble: O3, T5.1] [in RB, Rubble is considered a building for Ambush and Street Fighting purposes: SSR RB8] [RB Factories: O5.34] [RB Roofless Factories: O5.46] [RePh, Wooden Blaze: Q9.6092, R9.6092, T15.6103; Stone Blaze: Q9.6093, R9.6093, T15.6104] [Road: B3.43] [Rooftop: B23.86] [Sewers: O.6] [+1 Stone drm for Steeple NA: B31.2]

Rules Order Precedence (Higher alphanumeric rule case takes precedence): Intro. pg. ii, E.2

Runway: B7 [Betio Airfield: T13.1] [Entrenchments NA: B27.1]

Russian: A25.2 [Extreme Winter: E3.741] [Massacre: A20.4] [Paradrop: E9.2] [Rifle Company: S18.5] [Temporary Crew Driving Ability: A21.22] [Vehicle Crest in Wadi: F5.427] [VP of Temporarily Attached units/Weapons worth normal VP in SASL: S17.1321]

S

s: (see SMOKE) A24, C8.5

S: Sand overlay

S# (Smoke Depletion Number; the number is the Depletion Number, and the superscript following it indicates the first year it applies and a letter indicates the month of that year [EX: A superscript of "4" means the vehicle/ordnance has that ammo starting in 1944]): (see also SMOKE) C8.5, C8.9

S? ("Suspect ?"): S3.1

SA (Secondary Armament): D1.34 [Acquired Target: C6.5] [Bore Sighting: C6.41] [Recall: D3.7] [To Hit Case I: D5.2]

Same-Hex Fire: (see Firing Within Hex) A7.21, A7.212, C5.5

SAN (Sniper Activation Number): A14.1 [DYO: H1.29] [DYO during Seaborne Assault: G14.261] [Night: E1.76] [RePh: O11.6122, P8.6122, Q9.6122, R9.6122, T15.6122]

SAN Adjustment: [RePh: O11.6122, P8.6122, Q9.6122, R9.6122, T15.6122]

Sand: F7 [Beach: G13.3] [BRT Sand: T3.0] [S: Sand overlay]

Sand Dunes: F7.5 [Indirect Fire vs Dune Crest: C1.52] [SD: Sand Dune overlay]

Sandbars: G13.31

Sangar: F8 [Dozer vs: G15.261]

Sappers: B28.8 [Clearance DRM: B24.7] [DYO: H1.23]

SC: Scout Car

Scaling: B23.424 [Arnhem Bridge: R1.1] [Towers: B34.42]

Scarce Ammunition, OBA: C1.211 [DYO: H1.52]

Scenario Attacker/Defender (The Scenario Defender is the side that sets up wholly or partly on-board and does not have to capture terrain (on other than its setup board[s]) in order to fulfill its Victory Conditions, while facing an opposing side that enters wholly from offboard. This latter side is termed the Scenario Attacker. The Scenario Defender and Attacker both exist or neither does; a scenario cannot have one without having the other. In sce-

© 2000 Multi-Man Publishing, LLC

narios where neither exists, the use of rules pertaining specifically to their respective roles is not allowed): [Bombardment: C1.8] [Bore Sighting: C6.41] [Night: E1.2] [Pre-Registered Fire: C1.73]

Scenario End: [ABtF: CG4] [BRT: T15.3] [KGP: CG23] [PB: CG19] [RB: CG4]

Schuerzen: (see Sz) D11.2

Scrounging: [a Burnt-Out Wreck cannot be Scrounged: SSRs ABTF14, KGP10, PB10, RBCG7, BRT15] [LC: G12.83] [RePh: O11.6072, P8.6145, Q9.61423, R9.61422, T15.6135] [Small Arms: A20.552] [Voluntarily Abandoning Crew: D5.41] [Wrecks: D10.5]

Scrub: F2

SCW (Shaped-Charge Weapon; PF/PFk, PSK, PIAT, BAZ): C13.9 [Cave: G11.835] [FG NA: A7.5] [HE Equivalency: C8.31]

SD: Sand Dune overlay

sD (Vehicular Smoke Discharger): D13.1, D13.31 [Depletion Number NA: C8.9]

Seaborne Assaults: G14 [BRT: SSR4]

Seaborne Evacuation: G14.4

Searching: A12.152 [Bamboo counts as Searching two hexes: G3.22] [vs a hidden Cave: G11.33] [Gunflashes: E1.86] [HIP units in jungle, kunai, or bamboo Location: G.4] [Human Wave NA: A25.232] [Minefield: A12.33] [Panji: G9.48] [Japanese opponents: G1.63] [Rooftop: B23.82] [Trip Flares: E1.953, G.8C]

Season (monthly variations): [EC: B25.5] [Grain: B15.6] [Orchard: B14.2] [River Depth: B21.122] [Stream Depth: B20.4]

Seasoning: [Mission End: S17.74]

Seawalls: G13.6 [Betio Seawall: T10.1][Over The Wall: TCG16] [Tarawa Naval Bombardments: TCG4a]

Secondary Armament: (see SA) D1.34

Secret DR/dr: D.5

Sect (Section): P8.2, R9.2

Security Area: C1.23

Self-Destruction: [SW: A9.73] [Vehicles: D5.411]

Self Preservation: S6.311

Self-Rally (the capability of a broken unit to rally itself): A10.63, S6.317 [Commissars: A25.221] [Crew: A1.123] [Disrupted: A19.12] [ENEMY: S7.1] [Field Promotions: A18.11] [Finns: A25.7] [CG SSRs: ABtF14, KGP18, RB17, BRT14] [Heat of Battle NA: A15.1]

Sequence of Play, Basic: A3

Sequence of Play, Advanced (ASOP): ASOP Divider

Set DC: A23.7 [A-T Set DC by Japanese: G1.6121] [vs Caves: G11.8332] [RB: O11.621] [Removal: B24.75]

Setup Area: P8.2, Q9.2, Q9.605, R9.2, T15.2 [Equipment: R9.6071] [RePh: T15.6071]

Setup Limitations: A2.9 [Cellars: R4.2] [Concealment: A12.12] [Crest: B20.91] [Half-Hexes: A2.3] [HD: D4.221] [HIP: A12.3-.34] [HIP Deployment: A5.5] [Offboard Actions: A2.52] [Ordnance: B23.93, C2.7] [Motion NA: D2.4]

Sewers: B8 [cannot connect to any other type of subterranean Location: G11.934] [RB: SSR RB2, OCG18] [Rice Paddy hex NA: G8.73] [Rubble: B24.4] [SCW Fire: C13.8] [Stacking: A5.6]

SF (counter abbreviation for side-mounted FT): D3.6

SFCP (Shore Fire-Control Party): G14.61 [Tarawa Naval Gunfire: TCG3.11]

Shadows: E1.941

Shallow Water: E5.532, G13.4

Shellholes: B2 [Bombardment: C1.823] [Elevation Effects: B9.33] [Excavation Ditch: T11.1] [Hut: G5.7] [Jungle: G2.6] [Motorcycle Wreck Check: D15.46] [Rice Paddy: G8.72] [Road: B3.43]

Shift: P8.2, Q9.2, R9.2 [RePh: P8.613, Q9.613, R9.613]

Shipboard Observer: G14.68 [Tarawa Naval Gunfire: TCG3.12]

Shock (the condition of any AFV crew/Passenger currently beneath a Shock or Unconfirmed Kill counter): C7.4-.42 [Automatic BU: D6.61] *[EXC Carrier: D6.84]* [LC: G12.602] [RePh: P8.6043, Q9.6044, R9.6044, T15.6043]

Shore Fire-Control Party: (see SFCP) G14.61

Shore Hex: O11.2

Shoreline (Non-Beach): G13.41

Side Location: [Human Wave: A25.2311]

Sidecar (a motorcycle with a Passenger pod): D15.1

Sighting TC: E7.3 [BRT Palm Trees: T4.1] [vs Cave: G11.86] [Dust: F11.793] [Partial Orchard: Q2.5] [Roofless Factory Hex: O5.47] [Swamp: G7.21]

Single Hex Two-Story Building: B31.3, O4, P5.3, Q4.3

Single Lane Roads: (see One Lane Bridge) [in KGP, all unpaved Sunken roads and roads through woods are considered Single Lane: SSR KGP7]

Single Story House: B23.21, J2.4 [Building-Road Hex: Q5.5] [Dozer vs: G15.25]

Sinking: E5.53

Sissi: A25.73 [DYO Skis: E4.1]

Size: (see Target Size) C6.7

Ski Mode: E4.2

Ski Movement: E4.3 [Barbed-Wire Fences NA: P3.2, Q7.2] [Downslope gain $^1/_2$ MF bonus for each hexside: P2.51]

Ski Troops: E4

Skis: E4.21

Sledge: D12.5

Slightly Sloped Beach: G13.21

Slope (Continuous Slope): B.5

Slope Hexsides: P2, Q3 [Slope-Orchard Hex: Q5.6]

Slow Turret Traverse: (see ST) D1.32

sM (Smoke Mortar): D13.1, D13.32 [BU: D13.3] [Motion: D13.32]

Small Arms Fire: The inherent FP of any personnel counter and includes any Inherent SW

Small Rafts: E5.121

SMC (Single Man Counter): A1.11 [Captured AFV use: A21.22] [Casualty Reduction: A7.302] [CC: A11.14] [Cowering NA: A7.9] [Firing crew-served Weapon: A21.13] [HIP set up at Night: E1.2] [Infantry Overrun: A4.15] [Japanese: G1.4] [MG usage: A9.12] [Mortars: C9.2] [Pathfinders: T1.1] [acting as Temporary Crew: D5.343] [Wound: A17] [WW: QCG17, RCG19]

SMG (Submachine Gun): An Infantry weapon inherently represented by a squad's Assault Fire and Spraying Fire capabilities

SMOKE (Collective term for Smoke & WP): A24, C8.5 [Acquisition: C6.56] [Aerial LOS Hindrances: E.6] [Assault Engineers: H1.22] [Automatic Action if unit has a smoke exponent and is entering OG in LOS of armed FRIENDLY unit: S6.316] [Barrage:

© 2000 Multi-Man Publishing, LLC

E12.51] [Blaze: B25.2] [Bypass: A4.3] [vs Cave: G11.85] [Cellars: R4.41] [Creeping Barrage NA: E12.75] [CX: A4.51] [Deep Snow NA: A24.6, E3.734] [Depletion Numbers: C8.9] [ENEMY FFE: S8.721] [Fired Round: C8.5] [Firing SMOKE consumes a Gun's ROF *(EXC MTR)*: C3.33] [Gusts: B25.651] [Japanese: G1.17] [MOL-Projector: O10.45] [in Mud NA: A24.6] [Narrow Street: B31.131] [OBA: C1.71] [Ocean NA: G13.47] [Rain: E3.53] [RB Roofless Factories: O5.441] [S? Activation: S5.74] [affects Snap Shot: A8.15] [Strength & Placement phases: A24.5, C8.5] [TH# Modification: C4.4] [Wind Force: B25.63] [Wreck Blaze: B25.2]

Smoke(s): A24 [Blaze: B25.2] [MOL-Projector: O10.45] [Wreck Blaze: B25.2]

Smoke Dischargers: (see sD) D13.1, D13.31

Smoke Dispensers (sD, sM, sP, sN): D13, F.10 [Using & "?" Loss: A12.2]

Smoke Grenades: A24.1 [Assault Engineers: H1.22] [Hillock: F6.21] [Japanese: G1.17] [Vehicular: D13.35, F.10]

Smoke Mortar: (see sM) D13.1, D13.32

Smoke Placement Exponent (the exponent located after a squad's Firepower which determines placement of smoke grenades; Placement Exponent -1 for White Phosphorus): A1.21, A24.1 [Assault Engineers: H1.22] [SMOKE Generation on S? Activation: S5.74]

Smoke Pots: (see sP) D13.1, D13.33

sN (Nahverteidigungswaffe; German AFV Close Defense Weapon System): A11.622 [Smoke Capability: D13.34]

Snap Shot: A8.15 [Depression: B19.4 EX] [Entrance of/rebuffed from Enemy hex: A12.15] [Loss of Concealment: A12.141] [Residual FP NA: A8.223] [through Wall/Hedge: B9.2]

Sniper: (see also SAN) A14 [Aerial Targets NA: E9.32] [Ammunition Shortage NA: A19.131] [CG SSRs: OCG8, PCG16, QCG13, RCG8, TCG8] [vs Column: E11.53] [Cowering NA: A7.9] [Culvert: P4.24] [DM: A10.62] [ENEMY: S8.8] [Factory: B23.741] [against LC: G12.603] [Mistaken Fire: E1.76] [Night: E1.72] [TEM in factory: O.4A] [unit IN a Culvert Location is considered a non-target: O7.5]

Sniper Check: A14.4

Snow: E3.7 [Drifts: E3.75] [NVR: E1.15] [Slope Hexside: P2.54] [Towers: B34.42]

Soft Ground: D8.21 [SSR KGP5] [SSR PB5]

Solitaire Campaign: S17

Solitaire Tables: S.1

SP: Self-Propelled

sP (Smoke Pots): D13.1, D13.33

SPA: Self-Propelled Artillery

SPDC: SP Demolition Charge (see Goliath)

Special Ammunition: C8 [ABtF: SSR20] [Ammo Vehicle: E10.2] [ENEMY: S8.25] [in RePh: O11.6137, P8.6146, Q9.61424, R9.6144, T15.6136]

Special Forces Integrity: S12.22

Split Level Building: B23.72

Splitting Motorcycle Units: D15.44

Spotted Fire: C9.31 [CMD DR: S16.36] [no Gunflash: E1.89]

Spotters: C9.3 [Towers: T7.8]

Spraying Fire: A9.5-.52 [Bore Sighting NA: C6.44] [Caves: G11.811] [Residual FP: A8.24] [Squad: A7.34]

Squad: A1.121

Squad Equivalent (two crews/HS or one crew/HS and five SMC): A5.5

Squad Seasoning: [Mission End: S17.74]

SR (Spotting Round): C1.31 [Blast Height: C1.32] [Cancel: C1.35] [Correcting: C1.331] [IR: E1.931] [no Gunflash: E1.87] [Offboard: C1.321]

SS: A25.11 [ABtF Unit Replacement: R6.2] [in KGP, SSR KGP11] [Massacre: A20.4]

SSR (Scenario Special Rule): Always takes precedence over Game System rules

ST (Slow Turret Traverse): D1.32 [1MT: D1.322]

St: Stream overlay

Stabilized CMG: D11.13

Stabilized Gun (any AFV equipped with a Gyrostabilizer): (see Gyrostabilizer) D11.1-.12

Stacking Limits: A5 [Betio Piers: T9.2] [Cave: G11.4] [Cellars: R4.12] [Human Wave S? considered as two squads: S4.3] [Inspecting: see Right of Inspection: (Before Play: A2.9) (During Play: A12.16) (Pillboxes: B30.7)] [Cloaking: E1.422] [LC: G12.15] [Prisoners: A20.51] [S? considered as one squad: S3.11] [Steeple: B31.21] [Towers: B34.21]

Stairwell: B23.2 [LOS: B23.26] [Cellars:O6.61, R4.2] [Cellar Rubble: R4.61] [Factory Rooftop Access Points: B23.88] [Rubble: B24.4] [SW Field of Fire: A9.21]

Stall (Rules are given in a Chapter H Vehicle Note if a nationality's AFV are subject to Stall; for example, German Multi-Applicable Vehicle Note H): [Platoon Movement: D14.22]

Starshells: E1.92 [Dust: F11.78] [in PB: SSR PB19] [Roofless Factory Hex: O5.48]

Starshell Usage DR: E1.921

Starting: D2.12 [Reversing: D2.21]

Stationary Bypass: D2.34 [Horse/Animal Drawn Transport: D.2]

STCA (Starboard Turret Covered Arc): Polish Vehicle Note 2

Stealth (Heroes, Japanese Elite, and 1st Line Infantry, and Partisans are Stealthy; ANZAC, Commandos, Gurkhas, Finns are Stealthy unless Green): A11.17, G1.6 [British: SSR ABtF9] [Inexperienced Personnel NA: A19.2] [Night: E1.61] [in RB, Good Order Russian Elite and 1st line infantry: SSR RB18] [in PB, Ox and Bucks only at Night: SSR PB14] [Searching: A12.152, A12.154]

Steeply Sloped Beach: G13.23

Steeple: B31.2

Step Reduction: G1.11

Steppe Terrain: F13.2

Sticks (Elements of a Parachute Drop): E9.11

Stone Location: O11.2

Stopping: D2.13 [Reversing: D2.21, D2.24]

Storage Tanks: O9

Strafing: E7.401

Strategic Location: O11.2, P8.2, Q9.2, R9.2, T15.2

Straying: E1.53 [Bamboo: G3.21] [Barbed-Wire Fence causes TI: P3.2, Q7.2] [Beach: G13.83] [Column: E11.6] [Jungle: G2.22] [Railway Embankment NA: O2.3] [Unpaved Roads exist for Movement/Straying DR: E3.6]

Stream: B20 [Entrenchments NA: B27.1] [Motorcycle Wreck: D15.46] [Low Crawl NA in non-dry: A10.52] [St: Stream over-

© 2000 Multi-Man Publishing, LLC

lay] [Stream Hex Terrain: B33, P4] [Stream-Partial-Orchard Hex: Q5.3] [Stream Culvert: P4.2] [SW Possession: A4.43] [Underbelly Hit: D4.3]

Street Fighting: A11.8 [Narrow Street: B31.132] [Reaction Fire: D7.2] [in RB, Rubble: SSR RB8] [Wide City Boulevards NA: R7.1]

Strength: O11.2, P8.2, Q9.2, R9.2

Strength Factor: A1.2 [BAZ/DC/FT/PIAT/PSK/MG: FP-Range] [Leaders: Morale-Leadership] [MMC & Hero: FP-Range-Morale]

Stuka: E7.403

Stun: D5.34 [BRT: SSR12] *[EXC Carrier: D6.84]* [Halftrack Passengers NA: D6.62] [in KGP, German Vehicles: SSR KGP12] [LC: G12.111] [in RePh: P8.6141, Q9.6141, R9.6141, T15.6131] [Vehicle of Assaulting/Evacuating side: G14.33]

Submerged Reef: G13.431 [BRT Ocean: T2.1]

Subsequent First Fire: A8.3 [Activated ENEMY: S5.3]

Subterranean (a separate, underground Location or passage including Caves, Cave Complexes, Culverts, Passages, Sewers, and Tunnels): [Control: G11.94] [IR NA: E1.933] [Security Area: G11.837] [Sniper Non-Target *(EXC Caves)*: A14.22] [Starshells NA: E1.923]

Sun Blindness: F11.61

Sunken Lane: B4.43

Sunken Railroads: B32.1

Sunken Road: B4 [Entrenchments NA: B27.1] [in KGP, unpaved are Single Lane: SSR KGP7]

Superior Turret (counter AF encased in a square): D1.63

SuRR (Sunken Railroads): B32.1

Surr (counter abbreviation for Surrender): (see Surrender) A15.5

Surrounded Hexes: [RePh: Q9.6054]

Surrender: A15.5, A20.21 [Japanese are exempt in the RtPh: A20.21, G1.62] [Night, only during CC or Mopping Up: E1.54] [refusal NA in North Africa: F.5]

Survival: D6.9, D5.6

Sustained Fire: A9.3 [AFPh Restriction: A4.41, A7.25] [B#/X#: A.11] [Final Fire Restriction: A8.41] [SMC NA: A9.3] [Subsequent First Fire: A8.3]

SW (Support Weapon; any weapon depicted on a ½" counter): [Animal Pack: G10.7] [Assembly: A9.8] [DYO Allotment: H1.83-.84]

SW Abandonment: (see Abandonment, SW) A4.43

SW CA: A9.21

SW, Dropping: A4.43 [before Routing: A10.4] [Prisoners: A20.21]

SW/Gun Destruction: A9.73 [CC: A11.13] [Motorcycles: D15.5] [OVR: A9.74] [Random Destruction: A9.74] [Rubble: B24.11]

SW Malfunction: A9.7 [Bail Out: D6.24] [Multiple SW: A9.71]

SW Possession: (see Possession, SW) A4.43

SW Recovery: (see Recovery, SW) A4.44

SW Removal: (see Removal, SW) D6.631

SW Team: S17.14 [Replacements: S17.83]

SW Usage: A7.35 [AFPh Limits: A4.41] [Berserk: A15.431] [CA: A9.21] [Cloaking: E1.42] [CC NA: A11.13] [Cavalry NA: A13.4] [dm in a Column, unless transported by wagons: E11.51] [dm setup: A2.52] [Crest Infantry restrictions: B20.95] [HIP set up at Night: E1.2] [Leadership: A7.531] [Loading: D6.4] [Motorcyclists: D15.6] [Multiple Targets: A7.33] [Passengers: D6.1] [Possession: A4.43] [Recovery: A4.44] [S? Activation: S5.75] [SMC

on MTR: C9.2] [SW Chart: Chapter A divider] [Transfer: A4.431] [Wadi Crest position: F5.41] [Wading: G13.4211]

Swamp: G7

Swamping DR: G13.4222 [NA in BRT Ocean: T2.31] [Heavy Surf: G13.441]

Swimming: E6

Sz (Schuerzen): D11.2 [DYO: H1.42] [in KGP & PB, all PzKpfw IVH and IVJ have Schuerzen: SSR KGP14, SSR PB16] [S? Activation: S5.713]

T

T (Fast Turret Traverse): D1.31

(t) (Czech manufacture counter abbreviation): D2.5

T# (Towing Number): C10.1, D1.5 [Narrow Street: B31.124] [Panji: G9.421] [in PB, only at Dusk: QCG11] [Reverse Movement NA: D2.2]

Tankdozer: G15.13, American Vehicle Note 18, British Vehicle Note 23

Tank-Hunter Heroes: (see T-H Heroes) G1.421

Tarawa Naval Bombardments: TCG4

Tarawa Naval Gunfire: TCG3

Target Acquisition: C6.5 [Night: E1.74]

Target-Based Hit Determination DRM: C6

Target Determination: A7.4

Target Facing: D3.2 [Hit Location: C3.9] [VBM: D2.32]

Target Hit Determination DRM: C6

Target Selection Limits: A7.212

Target Size: C6.7 [Gun: C2.271] [Revealing when Concealed: A12.2] [Vehicular: D1.7, Concealment: D1.76]

Target Types (Vehicle, Infantry, Area): C3.31-.332 [Undeclared: C.9]

TB (Trail Break): B13.421 [fully-tracked AFV in Minefield: B28.61] [Dozer: G15.24] [Minefield: B24.74] [Mines: B28.61] [Straying: E1.531] [Rubble: B24.71, B13.4212] [Vehicle in Woods-Road: B13.31] [Woods: B13.421]

TC (Task Check): A10.1 [Bog: D8.22] [Booby Traps: B28.9] [Deploying: A1.31] [Immobilization: D5.5] [Infantry OVR: A4.15] [Kindling: B25.11] [LLTC: A10.2] [Over The Wall: TCG16] [Passengers on LC: G12.13] [PAATC: A11.6] [Prisoner attacking Guard: A20.55] [PTC: A7.305] [Set DC: A23.7] [Swimming: E6.1]

TCA (Turret Covered Arc): D3.12 [Building-Road Hex: Q5.5] [Bypass: D2.32] [Narrow Street: B31.121] [Riders: D6.21] [Secret Record: A12.2] [Unprotected Crew: D5.311]

TD: Tank Destroyer

TEM (Terrain Effect Modifier; a DRM caused by terrain): A7.6 [AFV/Wreck: D9.3] [Artificial Terrain (AFV, wreck, SMOKE): B.9] [LC if beached: G12.81] [Mud/Deep Snow is cumulative: E3.62] [Ordnance: C6.8]

Temple: G.9F

Temporary Breach: [Barbed-Wire Fence: P3.21, Q7.21]

Temporary Crew: A21.22 [SMC: D5.343] [Temporary Driver: A21.21]

Terrain Combinations: Q5

Terrain Modification to Anti-Vehicle Fire: D4

Terrain Overlays: (see Overlays) A2.7, F12, G.9A

© 2000 Multi-Man Publishing, LLC

Tetrahedrons: G14.51 [BRT Tetrahedrons: T2.5] [DYO: G14.58]

TF (counter abbreviation for Turret FT): (see FT) D3.6

T-H Heroes (Tank-Hunter Heroes): G1.421 [using A-T Set DC: G1.6121]

TH# (To Hit Number): C3.3 [Basic TH#: derived by cross-indexing Target Type & Range on To Hit Table] [Modified TH#: Basic TH# plus any modifications for Gun and Ammo Types]

Third Level Structures: B23.24

360° Mount: C2.3

Thrown DC: A23.6 [vs AFV: C7.346] [Berserk: A15.431] *[EXC Cavalry: A13.4]* [vs Caves: G11.833] [Passenger: D6.1] [Sidecar: D15.6]

TI (Temporarily Immobilized): A4.8 [Berserk NA: A15.42] [Clearance Attempts: B24.7] [Hooking/unhooking/pushing: C10.11-.3] [Mopping Up: A12.153] [caused by Panic: S6.211] [Scrounging: D10.5] [Searching: A12.152] [Sniper Check: A14.4] [Straying: E1.53]

Tide: [DYO: G13.97]

Time of Day: [DYO: F11.3]

TK# (To Kill Number): C7.11 [Basic TK#: Number beneath Gun Caliber & Length on applicable To Kill Table] [Modified TK#: Basic TK# plus applicable To Kill Modifications (Cases A-D)] [Final TK#: The Modified TK# minus the AF of the Target Facing hit] [Wading: T2.3]

TKO (Turret Knock-Out): Polish Vehicle Note 2

To Hit Number: (see TH#) C3.3

To Hit Process: C3 [Armor Leader: D3.44]

To Kill Number: (see TK#) C7.11

To Kill Tables: C7

Towers: B34, Q6, SSR PB8 [BRT Towers: T7.1]

Towing: (see T#) C10.1, D1.5

TPBF (Tripled Point Blank Fire): A7.21-.212 [MPh in jungle, kunai, or bamboo Location: G.4] [vs Aerial Target NA: E.5] [AFV in CC NA: A11.62] [Berserk: A15.432] [Bypass: A12.151] [vs Cavalry: A13.351] [CC NA: A11.13] *[EXC DC: A23.1] [EXC FT: A22.1]* [Hut Flame: G5.6] [MOL: A22.611] [Ordnance NA: C3.51] [Pillbox: B30.44] [Non-CC Reaction Fire: D7.2] [Spraying Fire NA: A9.5]

tr: Truck or Car

Tracking: C6.51 [Automatic Fire Action: S6.31433]

Tracks: F9

Trail Break: (see TB) B13.421

Trailers: C10.4-.41 [Reverse Movement NA: D2.2]

Transfer, SW: A4.431 [Prisoners: A20.5]

Transporting Personnel: D6

Trench: B27.5 [$^5/_8$" counters in ABtF: RCG13] [Betio Trenches: T12.2] [Bunkers: B30.8] [Cellars: O6.21, R4.2-.21] [Gun S? Activation in a Fortification automatically in a Trench: S5.741] [Lower Level Locations: B27.6] [Passage: T6.4] [Rally DRM: A10.61] [Straying: E1.531] [in RB, may exist in Paved Road if Shellholes exist: SSR RB5] [Rice Paddy: G8.71] [Sangar: F8.6] [connect to all ADJACENT building/rubble Locations: SSR ABtF17, SSR RB6, T6.33]

Trip Flares: E1.95 [Panji Location with no jungle/bamboo: G9.121]

Tropical Climatic Conditions: G16

Trucks: D1.15, D6.7

Tt: Tankette

Tunnels: B8.6 [BRT: SSR14] [Cave: G11.933] [RB Cellars: O6.21] [in RB, entrance/exit may cross Cliff hexside: SSR RB16] [Dozer vs: G15.21] [Japanese Pillbox: G1.632] [Passage: T6.4] [Rice Paddy hex NA: G8.73] [Stacking: A5.6]

Turn Record Chart: A3.9

Turret Armor: D1.63-.64

Turret Hit: C3.9 [Wall HD TH drm: B9.33]

Two Story House: B23.22 [Single Hex Two-Story Building: B31.3, O4, P5.3]

U

UDT (Underwater Demolition Teams): G14.22, G14.561 [DYO: H1.6]

UK (Unconfirmed Kill; the condition of an AFV and its crew/Passengers if it has failed to recuperate from Shock): C7.4 [RePh: O11.6131, P8.6043, Q9.6044, R9.6044, T15.6043] [Unarmored NA: D6.71]

Unarmed (Any unit without inherent FP usable on the IFT unless mounting or possessing a functioning Gun/SW; a leader is armed [unless a prisoner/swimmer: A20.551] but has no Normal Range; Abandoned AFVs are unarmed): A20.5 [Automatic Action: S6.302] [Heat of Battle NA: A15.1] [Inherent Driver: D5.1] [Japanese: G1.15] [Swimmers: E6.4]

Unarmored Target Facing/Aspect (Target Facing/Aspect represented by a "★" symbol; if "★T" appears beside an AF, the AFV's rear turret/upper superstructure is unarmored): C7.11, D1.2, D5.311

Unarmored Vehicles: D1.21 [AFV (vs A-P mines: B28.42) (vs A-T mines: B28.52)] [Airburst: B13.3] [Crew Morale: D5.1] [Crew Protection: D5.311] [HD: A7.308] [IFT vs: A7.308] [MG: A9.6] [Ordnance Hits vs: D6.71] [OVR FP: D7.11] [Spraying Fire: A9.51] [Target Selection Limits: A7.212] [TEM NA: unless Wreck: D9.3] [Trucks: D6.7]

Unbeaching: G12.3, G13.442

Unconfirmed Kill: (see UK) C7.4

Uncontrolled Territory: P8.2, Q9.2 [RePh: P8.6053, Q9.6053]

Underbelly Hits: D4.3 [Bank: G8.2121] [Bocage/Breached: B9.54-.541] [Dune Crest: F7.515] [Sangar: F8.51] [Wadi: F5.422]

Underwater Demolition Teams: (see UDT) G14.22, G14.561

Unhooking Guns: C10.12 [Bogged/Immobilized Vehicle: D8.32] [CMD DR: S16.35] [Towing on Narrow Street: B31.124]

Unit: Any game piece or counter with its own MF/MP allotment and normally capable of movement without being portaged, pushed, or towed. Infantry, Cavalry [but not horses], Dummy stacks, and vehicles (even if Immobilized) are all different types of units

Unit Setup: [ABtF: R9.6214] [BRT: T15.620] [KGP: P8.624] [PB: Q9.6202] [RB: O11.624]

Unit Size Number: (see US#) A1.6

Unit Substitution: A19 [NA for Pathfinders: T1.1] [WW: QCG17, RCG19]

Unlikely Kill: A7.309, A11.501, E7.512

Unlimbering: C10.2

Unloading: D6.5 [Boat: E5.32] [CMD DR: S16.35] [Green/Inexperienced: A19.31] [LC: G12.4, G13.443] [Minimum Move NA: A4.134] [Narrow Street: B31.125] [Pier: G13.731-.732] [RePh: P8.6031, Q9.603, R9.603, T15.6031] [Seaborne Assaults: G14.231]

Unloading LC: G12.4, G13, G13.443 [Pier: G13.731]

© 2000 Multi-Man Publishing, LLC

Unprotected Crew: D5.311

Up-Slope: P2.2, Q3.2

Upper Levels: B23.421 [Encirclement: A7.72] [Isolation in RePh: O11.6057, P8.6057, Q9.6057]

US# (Unit Size Number; SMC: 1, Crew/HS: 2, Squad: 3, 5/8" counter: 4, Large vehicle or Gun/its manning Infantry: 5): A1.6 [Breach in Factory Walls: O5.331, R3.331] [Cellars: O6.4, R4.4] [Majority Squad Type: E.4]

U.S. Army: (see American) A25.3 [Early U.S. Army: G17.2]

U.S. Marine Corps: G17.1

Usage Number (the number that must be rolled ≤ to fire a Smoke Dispenser): D13.1

V

Valley: B22

VBM (Vehicular Bypass Movement): D2.3 [Arnhem Bridge: R1.12] [Barbed-Wire Fence: P3.4, Q7.4] [Building-Palm: T4.3] [Building-Road Hex: Q5.5] [Burning Wreck Spreading Fire: B25.6] [Concealed Enemy: A12.42] [ENEMY Vehicles: S9.37] [Factory: R3.32] [Fire within Hex: C5.5] [(un)Hooking Gun NA: C10.12] [Huts: G5.42] [Minefield: B28.44] [OVR: D7.13] [Reaction Fire: D7.2] [Stationary Bypass: D2.34] [Street Fighting: A11.8] [Towing on Narrow Street: B31.124] [Unloading/Bailing Out: D6.5]

VCA (Vehicular Covered Arc): D3.11 [Motion VCA Change: D2.401] [Narrow Street: B31.123] [VCA Changes: D2.11]

Vehicle: D.1 [Armor Leader: D3.4-.43] [Cover: D9] [Cowering NA: A7.9] [CH vs AFV Location: C3.74] [Dust: F11.74] [DYO Purchase: H1.4-.465] [ENEMY: S9.3] [MG Armament: D1.8-.83] [Minimum Move: D2.15] [Reverse: D2.24, F.11] [Morale: D5.1] [S? Activation: S5.71] [Smoke Dispensers (sD, sM, sN, sP): D13, F.10] [Target Type: C3.31] [Vehicle Dust: F11.74]

Vehicle Counters: D1

Vehicle Crew Counters (Distinct from Infantry crew by its FP of one and non-elite status): A1.123, D5.1 [Captured AFV: A21.22] [SW Team treated as HS: S17.14]

Vehicular MG Fire: D3.5-.54 [Bounding First Fire: D3.3-.32] [Cowering NA: A7.9] [Exchange in RePh: O11.6133, P8.6143, Q9.61421] [Fixed Mount: D1.81] [Malfunction: D3.7] [Motion: D2.42] [Multiple MG Malfunction: A9.71] [Range (b/c/a range 8/12/8): D1.81-.83] [Spraying Fire if MA: A9.5] [Sustained Fire NA unless MA: A9.3]

Vehicular Movement: D2 [Deep Snow: E3.7331] [Move Command: S9.2] [Mud: E3.64] [Panic Action: S6.21] [Rain: E3.54] [Reverse: D2.24, F.11] [Snow: E3.724]

Vehicular Sized Entrance: B23.742, O5.2, R3.2

Vehicular Target Hits vs PRC: D.6

Vehicle Target Type: C3.31 [MG vs AFV: A9.61] [To Kill Tables: C7.1]

Vertex (a point in every hex where one hexside meets another; every whole hex has six vertices of its own; when written as a three hex number coordinate the first number is always the hex actually containing the unit referred to): C.5

Very Heavy Dust: F11.731

Victory Conditions: A26 [Escaped Prisoners: A20.55] [Half-Hexes: A2.3]

Victory Points: (see VP) A26.2

Village Terrain: B31, P5, Q4

Vineyard: B12.7, F13.6

Voluntary Break: A10.41 [DM: A10.62] [ENEMY Rout: S10.5] [Japanese: G1.13, SMC NA: G1.4]

Voluntary Rout: A10.711

VP (Victory Points): A26.2 [CG: S17.5] [Captured Chinese Equipment: G18.44] [Desert: F.3] [ENEMY Vehicles Exit VP: S9.341] [Evacuation: G14.42] [Exit Victory Conditions: A26.3] [FRIENDLY Weapon Spiking: S15.7] [FRIENDLY Prisoners: S15.7] [FRIENDLY Captured Vehicles: S15.7] [Japanese: G1.65] [opponent does not gain VP when Japanese are flipped to their Reduced side: G1.65] [LC: G12.84, G12.114, G13.84] [LVP (Location Victory Points): P8.2] [Mission Victory Conditions: S12.6] [in RePh: Q9.6162] [Rooftops NA: R.4] [allowed for units/equipment lost from Swamping/Beaching: G13.84] [Temporarily Attached units/Weapons worth 1.5 times normal VP *(EXC Russian)*: S17.1321] [Towers: B34.7]

vs: versus

Vulnerable PRC (any PRC subject to a specified attack if their vehicle is not eliminated/shocked/stunned [Riders are still vulnerable]; all CE PRC are Vulnerable, as are all units conveyed by an unarmored vehicle and those in an AFV that for a particular reason is treated as unarmored [for that attack]): [Near Miss also affects Specific Collateral Attack vs Vulnerable PRC: E7.421]

W

W: Wadi overlay

WA: (see Wall/Hedge Advantage) B9.32

Wadi: F5 [W: Wadi overlay] [Betio Gullies: T12.1] [Overlay: F12.41]

Wadi Cliff: F5.3

Wading: G13.42 [Heavy Surf: G13.447] [Pathfinders: T1.2] [TK: T2.3] [Unit Survival: T15.605]

Wagons: (see Horse-Drawn Transport) D12

Walking Wounded: (see WW) QCG17, RCG19

Walls: B9 [Bypass LOS across: (Infantry: A4.34) (Vehicle: D2.37)] [Dune Crest NA: F7.514] [Fortified Buildings: O.2B] [Hillside Walls/Hedges: B9.6, P6, Q8] [HD: D4.21] [OVR TEM: D7.15] [TEM NA for Ground Support: E7.4; for PRC: B9.3] [Turret Hit drm: B9.33] [Underbelly Hit: D4.3]

Wall/Hedge Advantage: B9.32 [Cactus Patch and vehicle WA: B14.7] [Dune Crest NA: F7.514] [Indirect Fire: B9.34] [Olive Grove and vehicle WA: B14.8] [Seawall: G13.623, T10.1] [VBM: D2.37]

Water Line: E5.531

Water Movement: E5.3 [Drift: B21.121] [Entry: E6.1]

Water Obstacles (unfordable river, pond, frigid/flooded stream, canal, lake, ocean): B21 [Deep Water: G13.4] [Entrenchments NA: B27.1] [Frigid/Frozen Stream: B20.7, E6.1, P4.23] [Low Crawl NA: A10.52] [S? entry NA: S3.323] [Shallow Water: G13.4] [SW Possession: A4.43]

Water Shortage: [British in ABtF: RCG21] [WW: RCG19]

Watercraft (LC, boat, or amphibian): G13.401

Waterproofing: G13.4221

Wd: Woods overlay

wdr: white die roll

Weapon (Any SW/Gun/Vehicular-armament/Daisy-Chain/MOL using the IFT/TK table to cause damage to the opponent): O11.2,

© 2000 Multi-Man Publishing, LLC

Weapon

P8.2, Q9.2, R9.2 [Mission End: S17.622] [RePh: O11.6132, P8.6142, Q9.6142]

Weather: E3 [ABtF: RCG3] [Arid: F11.2] [in a building: E3.8] [KGP: PCG3, P8.617, SSR KGP2] [RB Roofless Factories: O5.44] [RB: OCG3] [RePh: O11.618, R9.62161] [Tropical: G16.2]

Weather Chart: [Arid Climate: F11] [Temperate Climate: E3] [Tropical Climate: G16]

White Counters: A.12

White Phosphorus: (see WP) A24.3

Wide City Boulevards: B7, R7.1

Wind: B25.63-.651 [Arid Land: F11.5] [Dust: F11.76] [Fog: E3.312] [Heavy Surf: G13.448] [in KGP, SSR KGP2] [in PB, SSR PB3] [RB Roofless Factories: O5.441] [RePh: O11.624] [Tropical: G16.4]

Wind Change DR: B25.65 [Civilian Interrogation: E2.4] [Falling Snow: E3.71] [Gusts: E3.4] [Rain: E3.51] [RE: S2.2]

Wings: E9.11

Winter Camouflage: E3.712, S12.31 [OBA Observer: C1.6] [Ski Troops: E4.4]

Wire: B26, J2.14 [Bamboo NA: G3.5] [Beach: G14.52] [Bombardment vs: C1.822] [Bypass: A4.3] [Caves: G11.931] [Clearance: B24.73] [Column: E11.534] [in PB, Crash drm for Glider Landing: SSR PB20] [Double Time NA: B26.46] [Dozer vs: G15.23] [in RB, NA for Russian HIP: SSR RB7] [Manhandling: C10.3] [OCEAN with Tetrahedrons: G14.52]

Withdrawal: A11.2 [AFV: A11.7] [Ambush: A11.41] [ENEMY: S11.51] [Infiltration: A11.22] *[EXC Pillbox: B30.6]* [Vehicles, Cavalry, Cyclists, Skiers, PRC: A11.71]

Woods: B13 [Activated Partisan Infantry pays 1 MF to enter woods Location in SASL: S12.211] [Rally DRM: A10.61] [RePh: R9.6092] [Schuerzen Loss: D11.22] [Wd: Woods overlay]

Woods-Road: B13.31-.41

Wounds: A17 [Berserk: A15.431] [Climbing NA: B11.41-.42] [Mission End: S17.621] [Motorcyclist: D15.56] [Pathfinders: T1.1] [RePh: O11.610, P8.610, R9.6101, T15.6112]

WP (White Phosphorus): A24.3 [vs Cave: G11.85] [DM: A10.62] [FFE: C3.76] [Germans in ABtF: SSR18] [Straying: E1.53] [G.M.D.: G18.21] [Hut Flame: G5.6] [Japanese Elite: G1.17] [NOBA for US: G14.67] [Ordnance/OBA: C8.6] [in KGP, U.S. 60mm Mortars fire WP as if it were 1945: SSR KGP16]

WP# (Smoke Depletion Number; the number is the Depletion Number, and the superscript following it indicates the first year it applies and a letter indicates the month of that year [EX: A superscript of "4" means the vehicle/ordnance has that ammo starting in 1944]): (see also WP) C8.9

Wreck: D10 [Convoy: E11.23] [any Immobilized, unloaded, unhooked, unarmored, unarmed vehicle is flipped to its Wreck depiction (or removed from play if there is no Wreck): D8.1] [LC: G12.43] [in Heavy Surf: G13.4422] [Narrow Street: B31.126] [Sunken Lane: B4.43] [TB: B13.4211] [IN Water Obstacle: B21.122]

Wreck Blaze: B25.14 [Ammo Vehicles: E10.4] [Creation: (AFV C7.6) (Unarmored: A7.308)] [Gusts: B25.651] [RePh: O11.6091, P8.6091, Q9.6091, T15.6101] [Smoke: B25.2] [Smoke DRM replaces Wreck DRM: D9.4] [TEM NA: D10.3]

Wreck Check: [Japanese MC: G1.13] [Motorcycle: D15.46] [Wagon: D12.4]

Wreck Removal: (see Removal, Wreck) D10.4-.42

X#

WW (Walking Wounded): QCG17, RCG19 [CVP in RePh: Q9.6162] [Escape in RePh: Q9.606] [in RePh: Q9.6102, R9.6102] [Shift in RePh: Q9.613]

X

X: Building overlay

X# (Breakdown Number; weapon is not repairable): A9.7, A.11 [AFV: D3.7] [BAZ: C13.47] [Captured: A21.11] [DC: A23.4] [Extreme Winter: E3.741] [FT: A22.5] [Non-qualified use: A21.13] [OVR: D7.17]

SYMBOLS USED IN THE ASL RULEBOOK AND THEIR DEFINITIONS:

>: Greater than
<: Less than
≥: Greater than or equal to
≤: Less than or equal to
Δ: Leadership DRM/drm does not apply (A.10)
#: Number
/: and/or
★: Unarmored (D1.21)
*: short barreled Gun (C4.1)
1S: Counter abbreviation for one squad capacity
2S: Counter abbreviation for two squad capacity
3S: Counter abbreviation for three squad capacity
"**?**": Concealment counter (A12)

© 2000 Multi-Man Publishing, LLC

ERRATA

ASLRB (2nd EDITION) ERRATA

We publish errata for the *ASL* rules in the *ASL Journal* and maintain it on the MMP website (**www.multimanpublishing.com**). This list is a collection of all the errata to the ASLRB 2nd edition that has been published up through the date of this second printing of the ASLRB 2nd edition (i.e., through *ASL Journal 6* plus two new errata), minus the errata to the dividers and charts, which has already been incorporated into this second printing.

Many people simply pencil these errata into their rule books. We also maintain on the MMP website downloadable PDF documents for replacement rules pages that can be printed out to entirely replace the corresponding rules pages from the rulebook. These replacement pages encompass *some* of the errata contained here.

www.multimanpublishing.com/errata/aslerrata.php

We also maintain downloadable PDF documents that allow you to print out the errata on adhesive-backed paper, cut it out, and "stick" it in your rulebook over the areas in question. The fonts and font size have been duplicated in each instance to allow the cut out corrections to be placed on top of the initial errors. A description of the errata is listed first, followed by the corrected area intended for cutting out (i.e., the rule section as it should now read). Because some of the errata threw off the existing formatting in some areas, some additional material has been reformatted and provided to make sure that all the material fits in the proper space (e.g., B8.61-.63). Please take care to cut as close to the text as possible before applying these in your ASLRB. Please note that the Journal 3 "sticky" errata contains errata for the dividers and charts that has already been incorporated into this second printing (and thus need not be added).

www.multimanpublishing.com/errata/aslstickyerrata.php

A1.4: The green MMC illustration does not represent an actual unit.

A4.12: replace entire section with "Any Good Order MMC which begins *the* MPh/APh and ends *its* MPh/APh stacked with a leader of the same nationality in the same Location, at the same level (2.8), and with the same Wire/entrenchment/panji/paddy status is eligible for a two MF bonus during that MPh/APh, provided it expends all its MF while moving in a combined stack with that leader, and does not expend any of its MF to mount, ride, or dismount any form of conveyance."

A4.63: in line 2 after "Dash move" add "to a particular Location". In the last line of the second Example delete "either" and "or BB6".

A7.212: line 4 replace "unarmed/unarmored" with "unarmed, unarmored".

A7.3: second sentence lines 5-6, replace "due to the effect of terrain, Hindrances, target characteristics, and/or leadership" with "as listed on the IFT DRM chart or in the appropriate rules section". After the second sentence add: "Each applicable entry on the IFT DRM chart is cumulative (A.17) and is applied only once per attack, unless indicated otherwise."

A7.52: second sentence line 3, delete "(/Cowering/CX penalty)". After the second sentence add: "Should any member of the FG incur a detrimental DRM, it applies to the entire FG (cumulative as per A7.3)."

[Also applies to replacement page PDF.]

A7.7: in line 17 after "enemy" add "/Melee" then in the next to last line on page A15 after "enemy" add "/Melee". *[Available on replacement page PDF.]*

A8.22: 3rd bullet replace "Small Arms" with "Spraying Fire".

A8.3: add at the end "If a unit, or any SW/Gun it possesses, uses Subsequent First Fire (or Intensive Fire) then that unit and all its SW/Guns are marked with a Final Fire counter."

A8.41 EX: second paragraph, lines 23-25 replace "...the 4-6-7 would then be marked with a First Fire counter while the LMG's First Fire counter would be flipped to its Final Fire side." with "the 4-6-7 and LMG would then both be marked with a Final Fire counter."

A9.52: replace the second sentence with "Spraying Fire can be used against a moving unit and against a Location without a moving unit (halved again for Area Fire), although its only effect in the second Location would be to leave Residual FP."

A10.41: line 2 after "Range" add "per A10.532"

A10.5: lines 15-16 delete "to increase the distance between itself and ≥ 1 nearest Known enemy unit(s)".

A10.62: line 4 add "CC/" before "WP".

A11.51: line 5, replace "unbroken/unpinned, armed" with "unbroken, unpinned, and armed". Lines 7-8 delete "in a halftrack".

A12.15: line 9 after "it will" add "lose Concealment and".

A19.131: line 10 replace "all B#" with "all SW Original B#/X# *[EXC: DC]*".

A19.132: line 4 change "4-3-6" to "4-4-7".

A20.21: line 5 add "unconcealed" after "possible". At the end of the first sentence add "*[EXC: if pinned; 10.53 & G5.5]*."

A24.31: line 4 in EXC replace "non-moving units in MPh" with "non-moving units in First Fire".

A25.235 EX: in lines 21-22 [approximately] of the second paragraph, replace "but both pass the LLMC—the broken squad with a 7, the other with an 8." with "which then passes its LLMC with a 7." *[Available on replacement page PDF.]*

A25.3: The broken side of the American 6-6-6 squad should not have its Morale Level encased in a square and its BPV should be "11" not "17".

[Available on replacement page PDF.]

A25.45: replace "F.8" with "25.53".

[Available on replacement page PDF.]

B3.5: line 1 in the EXC: delete "rubble/".

B6.42: line 6 after "bridge" add "Location".

© 2005 Multi-Man Publishing, LLC

ERRATA

B8.61: line 7 after "Fortified" add "but would instead be eliminated if the opposite entrance were an enemy-occupied pillbox". *[Available on replacement page PDF.]*

B9.321 first EX: The 4-6-7 should be marked with a WA counter. *[Available on replacement page PDF.]*

B9.5: line 3 after "walls" add "*[EXC: HEAT NA (C8.31)]*".

B13.421: line 14 between "woods" and "hex" delete "road".

B14.2: line 6 before "higher" delete "one level".

B16.71: at the end of the first sentence add ";16.4 does not apply".

B16.72: at the end add "and pay double Open Ground COT".

B23.211: line 5 after "(A10.61)," add "Victory Conditions (A26),".

B23.25: at the end add "LOS to a unit in a building Location *[EXC: rooftop Location]* can exist only if drawn to an ADJACENT unit or (for LOS between different hexes) if the LOS as it enters the hex does not cross a hexside within the building depiction (e.g., in contrast to 1X3/1X4)."

B28.1: lines 6-7 delete "Known Minefields (28.45-.47)" from the EXC.

B30.34: in line 2 delete "Residual FP".

C.7: at the end (after the EX) add "The Original DR for rubble creation (B24.) and pillbox elimination is determined after application of the bonus DRM *[EXC: CH; 3.73]*."

C1.7: at the end add "*[EXC: IR Missions must be declared prior to the Mission's first Battery Access draw]*."

C1.81: lines 1-2 delete "(inclusive of units set up offboard)".

C4.2: penultimate line replace "Gun" with "weapon".

C5.35: line 2 delete "in its MPh".

C6.8: line 3 after the "WP" in the EXC, insert "; HD (D4.2)"

C7.7 AFV Destruction Table: in the "FT/MOL" column in the "=TK#" row add note "A" to the "Elim" entry. *[New]*

C11.3: line 1 delete "is".

C13.1: line 7 replace "red" with "green".

C13.31: lines 31-33 replace "squads" with "squad-equivalents".

C13.311: lines 3-4 replace "squads" with "squad-equivalents".

D2.3: line 16 add "/hexside" after "hex".

[Available on replacement page PDF.]

D2.5 ESB DRM Table: in the "+1" row after "Russian(r)." add ", all Chinese". *[New]*

D3.32: line 6 append the following at the end: "if not in Motion; or Case C4/quartered FP, if in Motion." Delete the sentence: "(See Example at the top of the next page.)"

[Available on replacement page PDF.]

D4.2: line 7 replace "claim a" with "claim an in-hex" before "Case Q TH DRM".

D6.5: last line add "/Recovered" after "unloaded".

E1.931: at the end add "IR Missions must be declared prior to the Mission's first Battery Access draw."

E3.6: replace the third sentence with: "On *unpaved* roads, the road bonus in B3.4-.41 is NA and Open Ground movement COT applies (as modified by 3.64) when using the road."

E3.733: line 1 delete "Ground/".

E3.7331: line 5, after "per hexside." add "Along plowed roads, all non-tracked vehicles *[EXC: sledges]* must pay one extra MP/MF per hexside.".

E7.25: line 19 after "one hex," add "and to reduce any non-cliff Crest Line Blind hexes to zero if there is ≤ 1 level elevation difference (see B10.23),".

E7.3: line 7-8 between "easiest" and "target" add "non-HIP *[EXC: Observation Planes may target "empty" hexes]*".

E7.4: line 2 at end of EXC: add "and subsequent hexes of a Strafing Run".

E7.5: in the antepenultimate sentence in the seventh line from the end after "marked with an AA counter" add "(and AAMG firing at Aerial targets)".

E7.6: lines 5-6 delete "is subject to malfunction/repair/disablement normally and".

E9.12: at the end of the first sentence, add "and the hexgrain direction they will all share."

German Vehicle Note 92: The illustration of the 2cm FlaK LKW and the 3.7cm Flak LKW both incorrectly show the vehicle as half-tracked; the Vehicle Listing and the counter itself both correctly show these vehicles using truck movement.

Russian Ordnance Listing page H28H: Multi-Applicable Ordnance Note A applies to the 107mm mortar (Note 3) not to the 120mm mortar (Note 4). The individual Notes themselves correctly show the appropriate Multi-Applicable Ordnance Note.

Chapter K, page K26: column 2, item number "2", line 1, add "armed" between "Known" and "enemy" and in line 6 delete "/unarmed".

Chapter K, page K29: column 1, paragraph beginning "I rally, but you don't..." lines 8-9, replace "instead being subject to the result of yours as if I were broken, except that" with "instead my life being subject to the result of your NMC—plus".

Chapter K, page K52: column 2, paragraph beginning "No matter what...", replace that first sentence with "No matter what, though, if you Hook Up a Gun both towing vehicle and Gun crew (Gun crew only if Unhooking) are marked with a TI counter for the rest of the Player Turn."

Index: under "Field Phone" replace "O6" with "OCG6".

Index: in the definition of "Armed" in line 2 after "(A20.54)", add "not possessing a functioning Gun/SW".

Index: in the definition of "Unarmed" in line 2 after "Gun/SW", add "or inherent crew".

© 2005 Multi-Man Publishing, LLC

A7 INFANTRY FIRE TABLE (IFT)

DR/FP	Backblast dr ATR 1/20	2/30	MOL 4/37	[6/50	A-P Minefields 8/60	PFk C37 12/70]	PF sN 16/80	C75 20/100	C105 24/120	DC 30/150	A-T Mine Set DC 36+/200+
★Vehicle	3	4	5	6	7	8	9	10	11	12	13
≤ 0	1KIA	2KIA	2KIA	3KIA	3KIA	3KIA	4KIA	4KIA	5KIA	6KIA	7KIA
1	K/1	1KIA	1KIA	2KIA	2KIA	2KIA	3KIA	3KIA	4KIA	5KIA	6KIA
2	1MC	• K/1	• K/2	•‡•1KIA	•‡• 1KIA	••‡• 1KIA	•‡‡• 2KIA	•‡‡• 2KIA	•‡‡• 3KIA	••‡‡• 4KIA	••‡‡• 5KIA•
3	1MC	1MC	2MC	• K/2	• K/2	‡• K/3	••‡• 1KIA	••‡• 1KIA	•‡‡• 2KIA	••‡‡• 3KIA	••‡‡• 4KIA•
4	NMC	1MC	1MC	2MC	2MC	3MC	‡• K/3	‡• K/4	••‡• 1KIA	••‡‡• 2KIA	••‡‡• 3KIA•
5	PTC	NMC	1MC	1MC	2MC	2MC	3MC	4MC	‡• K/4	•••‡• 1KIA	••‡‡• 2KIA•
6	—	PTC	NMC	1MC	1MC	2MC	2MC	3MC	4MC	‡• K/4	•••‡• 1KIA•
7	—	—	PTC	NMC	1MC	1MC	2MC	2MC	3MC	4MC	‡• K/4‡
8	—	—	—	PTC	NMC	1MC	1MC	2MC	2MC	3MC	4MC‡
9	—	—	—	—	PTC	NMC	1MC	1MC	2MC	2MC	3MC‡
10	—	—	—	—	—	PTC	NMC	1MC	1MC	2MC	2MC‡
11	—	—	—	—	—	—	PTC	NMC	1MC	1MC	2MC‡
12	—	—	—	—	—	—	—	PTC	NMC	1MC	1MC‡
13	—	—	—	—	—	—	—	—	PTC	NMC	1MC‡
14	—	—	—	—	—	—	—	—	—	PTC	NMC‡
≥ 15	—	—	—	—	—	—	—	—	—	—	PTC‡

- • Original FT DR causes P. Flame creation (B25.12); DR + EC ≥ Kindling # = Flame.
- ‡ Original HE/HEAT Effects DR causes P. Flame creation (B25.13); DR + EC ≥ Kindling # = Flame.
- • Original HE Effects DR ≥ 70mm causes P. wooden rubble creation (B24.11); dr ≤ Original KIA #.
- ‡ Original HE Effects DR ≥ 70mm causes P. rubble creation (B24.11); dr [+1 if stone] ≤ Original KIA #.
- • Original Concentrated HE FFE/Aerial Bomb Effects DR removes A-P/A-T minefield (B28.62) and/or Wire (B26.52)
- ‡ Original Concentrated HE FFE/Aerial Bomb Effects DR reduces minefield strength (B28.62) by one column (A-P) or one factor (A-T).
- • Original Concentrated HE FFE/Aerial Bomb Effects DR creates shellhole in OG, orchard, brush, and grain (B2.1).
- • A-T Mine Attack DR eliminates AFV* or burns ★ vehicle † (B28.52)
- ‡ A-T Mine Attack DR immobilizes AFV*, or eliminates ★ vehicle † (B28.52)

[* Aerial AF of lowest hull AF is +DRM
† AFV with any 0 hull AF is ★ vehicle]

C# = Canister Firepower

A3 SEQUENCE OF PLAY

1. Rally Phase (RPh)
2.* Prep Fire Phase (PFPh)
3.* Movement Phase (MPh)
Defensive First Fire
4.* Defensive Fire Phase (DFPh)
Defensive Final Fire
5.* Advancing Fire Phase (AFPh)
6. Rout Phase (RtPh)
7. Advance Phase (APh)
8. Close Combat Phase (CCPh)

* SAN are applicable
Dual Player Participation Phase

IFT FP MODIFIERS

Area Fire (A7.23); each . . . . . ×1/2[a]
- vs Dashing unit (A4.63)
- By Pinned firer (A7.8)[bc]
- Spraying Fire (A9.5; A7.34)[bc]
- vs Concealed target (A12.13; A9.4)
- By Crest Inf. across non-Crest-status hexside (B20.94)
- From Marsh (B16.32)
- From IN Deep/Shallow stream (B20.6)
- By Fording Infantry (B21.42)[bc]

Area Target Type (C3.33) . . . . . ×1/2
Assault Fire (AFPh; A7.36) *[EXC: Opportunity/Long-Range Fire]* . . FRU & +1
Non-Opportunity-AFPh/Bounding-(First) Fire (A7.24/D3.31) . . . . . ×1/2[ade]
Barrage FFE (E12.5) . . . . . one "standard" column to left
Non-ordnance/Area-Target-Type vs non-Beached Boat (E5.5) . . . . . ×1/2[f]
Critical Hit (C3.71) (all other FP Modifiers NA) . . . . . *Normal* FP ×2[e]
Cowering (A7.9) . . . . . one (Inexperienced: two) "standard" column(s) to left[ae]
Harassing Fire FFE (C1.72) . . . . . ×1/3
HE vs Fording Infantry/Cavalry (B21.41; C3.53) . . . . . ×1/2[f]
HE vs Marsh (B16.31) (FFMO NA) . . . . . ×1/2
Long Range Fire (A7.22; A22.1) . . . . . ×1/2[ac]
A-P Mine attack in Deep Snow (B28.3) . . . . . ×1/2[f]
Motion/Non-Stopped Fire (D2.42) *[EXC: OVR]* . . . . . ×1/2[ae]
- By AFV/Sidecar Rider (D6.22; D15.6)[b]
- By vehicle/non-Beached-Boat Passenger (D6.1; D6.72; E5.4)[b]

Mounted Fire (D6.22) . . . . . ×1/2[b]
- By non-Charging-Cavalry[e], AFV[c], or Sidecar[e] Rider (A13.4; D6.22; D15.6)
- By Passenger of other than armored halftrack (D6.1; D6.72; E5.4)[ae]

OVRing vehicle becomes Immobile or eliminated before OVR (D7.11) . . ×1/2[c]
PBF vs target ADJACENT or adjacent & ≤ one level higher (A7.21) . . . . ×2[ade]
Ordnance/OBA vs Sand (F7.4) . . . . . ×1/2*
* *[EXC: vs AFV; Vehicle Target Type; Direct Hit vs Gun; Specific Collateral Attack]*
vs Swimmer (E6.3) *[EXC: HE; IFE]* . . . . . ×1/2[ef]
TPBF vs same Location (A7.21) or hex (vs PRC; A7.211) . . . . . ×3[ade]

IFT DRM

vs Bicyclist (D15.85) . . . . . -1[a]
vs Cavalry (A13.5) . . . . . -2[af]
CX firer (A4.51) *[EXC: Cavalry Charge]* . . . . . +1[a]
Encircled firer (A7.7) . . . . . +1[a]
Firer on Wire (B26.31) . . . . . +1[a]
FFMO/FFNAM (A4.6); each . . . . . -1[a]
Hazardous Movement (A4.62) . . . . . -2[af]
- Preparing Set DC (A23.7)
- Sewer Movement (B8.3)
- Climbing/Scaling (B11.42/B23.424)
- Fording (B21.41)
- Manhandling (C10.3)
- PRC Survival (D5.6; D6.9)
- Aerial Paratroops (E9.3)
- Rubble/Flame/Roadblock Clearance (B24.71-.72; B24.76)

OBA/Bomb Heavy Payload (C.7); each . . . . . -1
- per 50mm > 200mm (FRD)
- CH only; per 8 FP > 36 FP (FRD)

LOS*/LV/DLV Hindrance (A6.7/E3.1/F11.6) . . . . . +x[ae]
* FFMO NA
Leader/Hero direction (A7.531/A15.24) . . . . . ±x[ade]
A-P/A-T Mine attack in Deep Snow (E3.732) . . . . . +1[f]
vs Motorcyclist (D15.5) . . . . . -1[af]
Overstacked firer (A5.12); per friendly vehicle or squad-equivalent (FRU) . +1[a]
vs Overstacked Personnel* (A5.131); per enemy squad-equivalent (FRU) . . . -1[a]
* *[EXC: PRC of other than motorcycle/bicycle]*
OVR vs Infantry in Open Ground (D7.15) . . . . . -1[c]
OVR vs Motion unarmored vehicle (D7.12) . . . . . +2[c]
vs Personnel unit possessing FT (A22.4) . . . . . -1
Set DC (A23.71) . . . . . (& no TEM) -3
Defender's TEM (A7.6) . . . . . (CH: -x[e]) +x[a]*
* TEM is not applicable to FT (A22.2) *[EXC: pillbox NCA TEM]* or Set DC (A23.71)
Thrown DC (A23.6) . . . . . (+3* vs Thrower) +2*
* Increase by one if the Thrower is Non-Stopped or Cavalry, and by one if Thrown in the AFPh as non-Opportunity-Fire (A23.62)

[a]Not applicable to ordnance [b]FT use not allowed [c]DC use not allowed [d]Not applicable to FT [e]Not applicable to DC [f]FFMO/FFNAM not allowed

A17 WOUNDS Δ

K (A7.302, A14.3)
CC (A11.11)
Fate (A10.64)

dr: 1-4 = Wounded
≥ 5 = KIA
drm: +1 if wounded already

HERO
−1 DRM
3 MF
1-3-8X

WOUND
dr: 1-4
3 MF, 0 TPC
ML/LD: −1

A11.4 AMBUSH

< enemy dr by at least 3 (by at least 2 if non-illuminated ATTACKER at night)

drm	Cause
+2	Cavalry, vehicle, pillbox
+2	Above Bank counter
+1	BU or Stunned (each)
+1	CX, Broken, Pinned (each)
+1	Lax, Berserk (each)
+1	Above Panji Counter
+1	ATTACKER in Jungle, Kunai, Bamboo
+x	Leadership if not alone
-1	Stealthy
-2	Concealed

CC

H-to-H MELEE (Red CC#)

A11.11 CLOSE COMBAT TABLE (CCT)

Odds Ratio:	< 1-8	1-8	1-6	1-4	1-2	1-1	3-2	2-1	3-1	4-1	6-1	8-1	10-1	> 10-1
Kill Number:	0 2	1 3	2 4	3 5	4 6	5 7	6 8	7 9	8 10	9 11	10 12	11 13	12 14	13 15

Red Kill Numbers apply to Hand-to-Hand CC only. NA by/vs vehicles/PRC/pillbox-occupants (G1.64, J2.31)
Sequential CC: Ambush, AFV, Prisoner * Applicable only to CC vs vehicles; DR ≤ CCV ***CCV:** Squad 5, Crew 4, HS 3, SMC 2
CCV Modifiers: Assault Engineers: +1, Inexperienced: -1, extra SMC: +1, halved FP: -1 (per each application)

CC FP or DR Modifiers:

by Ambush (NA during Melee) (vs Ambush +1) -.1
vs Crest/ski/Truck Passengers (by same: +2) -2
vs CX/TI/Wire unit/Riders (by same: +1) -1
Capture Attempt (vs Inexperienced Infantry: -1) +1
vs Withdrawing Infantry(A11.2) (per Covering unit: +1) -2
vs Broken Unit (A11.16) -2
by armed, unpinned Gurkha (A25.43)/Japanese (G1.64) vs Infantry/Cavalry in HtH CC -1
vs Concealed unit (A11.19) ×1/2
by Guarding/Motion/Pinned unit (per application) ×1/2
by Overstacked per excess squad (A5.12) +1
vs Bank unit (G8.212)/Panji unit (G9.21) (by Same: +1) -1
by vehicle on Narrow Street (B31.132) +1
by armed, unpinned Dare-Death MMC (G18.62) vs Personnel -1
*With ATMM (C13.7) -3
*vs Motion/non-stopped vehicle (A11.51) +2
*vs OT/partially armored AFV (A11.61) -2
*vs CE CT or abandoned AFV (A11.61) -1
*vs vehicle with no manned usable MG (A11.51) -1
*vs unarmored vehicle (A11.51) -3
*Per escorting Personnel HS/Crew (A11.51) (squad: +2) +1
*vs Immobile AFV (A11.61) -1
*Original 2 DR (A11.501) [dr 1:Burn, 2: Elim, 3: Immob]
vs Overstacked per excess squad (A5.131) -1
vs boat/amphibious passengers (E5.6) (by same: +2) -2
Leadership (if not alone) (A11.141)/Heroic (A15.24) DRM +x/-1

A12.121 CONCEALMENT LOSS/GAIN TABLE Δ

"?"/HIP IS LOST / "?" IS GAINED

LOS RANGE FROM NEAREST **GOOD ORDER** OR UNBROKEN ENEMY GROUND UNIT

	≤ 16		≥ 17		∞ (none in LOS)	
	IN CONCEALMENT TERRAIN	NOT IN CONCEALMENT TERRAIN	IN CONCEALMENT TERRAIN	NOT IN CONCEALMENT TERRAIN	IN CONCEALMENT TERRAIN	NOT IN CONCEALMENT TERRAIN
INFANTRY (not manning a Gun)	ABCD / [NA]	ABCD / [NA]	E / I	E / [NA]	F / J	F / K
EMPLACED GUN (and manning Infantry)	ACDG / [NA]	ACDG / [NA]	AG / [NA]	AG / [NA]	F / J	F / K
VEHICLE (and PRC)/UNEMPLACED GUN (and manning Inf)/CAVALRY/HORSE/BICYCLE	ABCD / [NA]	H / [NA]	AB / [NA]	H / [NA]	F / J	F / K
FORTIFICATION (HIP Loss/Gain only)	HL / [NA]	HL / [NA]	L / [NA]	HL / [NA]	L / [NA]	L / [NA]

[NA] "?" cannot be gained.

A If it: becomes broken/Reduced/Wounded/berserk/overstacked/captured, uses Non-Assault Movement, attacks in CC *[EXC: an Ambush that eliminates/captures its target; A11.4]*, is in Location that enemy Infantry/Cavalry attempt to enter during the MPh/RtPh, is forced back to its last Location via Detection (A12.15), is in an obstacle where a vehicle ends its MPh in Bypass (A12.42), is attacked resulting in at least a PTC (or its corresponding DR, on the ★ Vehicle line or for OBA [or for an A-T Mine Immobilization result] vs a vehicle) on the IFT *[EXC: A-P Mine Attacks; B28.411]*, is a vehicle hit by ordnance, is in a Location successfully Searched by the enemy, is a Dummy in a building successfully Mopped Up by the enemy, fails a PAATC caused by a vehicle's entry of its Location (A12.41), or is attacked by a Sniper dr (A14.3) or WP NMC (A24.31).

B If it/its PRC/its manning Infantry: moves/advances/withdraws into an Open Ground hex (A10.531), is in Motion, expends any vehicular MP/MF, fires or directs fire, or fires (not just attempts to use) a Smoke Discharger (D13.3).

C If it engages in any other action *[EXC: using a radio/field phone; Spotting; taking a PAATC (and Leader DRM applied to such a PAATC) not caused by a vehicle entering its Location; SW/Gun repair attempts, dropping SW; taking a Set DC NTC]*; e.g., attempts to entrench, kindle a Fire, Deploy, Recombine, make a Sniper/PF/MOL/ATMM Check, rally a broken unit, apply Leader DRM *[EXC: PAATC; Armor Leader]*, use Clearance, place SMOKE grenades, etc.

D If it/its PRC/its manning Infantry is designated as an Opportunity Firer (A7.25), or changes CA; or if its manning Infantry fire their inherent FP/any SW.

E If it: becomes broken/Reduced/berserk/Wounded/overstacked, is attacked resulting in at least a PTC on the IFT *[EXC: A-P Mine attack; B28.411]*, or is attacked by a Sniper dr (A14.3) or WP NMC (A24.31).

F If it: becomes broken/Reduced/Wounded, is in a Location successfully Searched by the enemy, or is a Dummy in a building successfully Mopped Up by the enemy.

G If it: uses IFE; or fires its Gun at a range of zero, or at a range of 1-16 hexes with a colored dr ≥ 5 in its Original TH DR, or at ≥ 17 hexes with such a colored dr of 6 *[EXC: a RCL would automatically lose its "?"; C12.12]* (the range is that from the nearest Good Order enemy ground unit to the Gun—not necessarily that from the target to the Gun).

H Its "?" (or HIP for a Fortification) is lost automatically.

I "?" is gained only if the unit is in Good Order and first makes a Final Concealment dr ≤ 5 (A12.122).

J "?" is gained if the unit is in Good Order.

K "?" is gained if the unit is in Good Order *[EXC: it must first make a Final Concealment dr ≤ 5 if an unbroken enemy ground unit is within 16 hexes of it; A12.122]*.

L If a unit therein loses its "?"/HIP, or if use of its protective DRM is claimed.

A12.152 SEARCHING: (MMC only)

dr=number of hexes which CANNOT be searched

drm	Cause
-1	Per Stealthy Searching unit
-1	Per HS equivalent > one HS Searching
+x	Leadership factor of best participating leader
+1	Per Lax or CX Searching unit (per each condition)
+2	vs Japanese *[EXC: vs building/rubble only]* (G1.63)

A12.154 SEARCH & MOPPING UP CASUALTIES dr ≤ 1 = IFT K result





12.122 CONCEALMENT drm

drm	Cause
+X	X is US# of unit or its possessed Gun/Horse
+Z	Z is Leadership of best leader in same Location unless alone (10.7)
+1	Lax
-Y	Y is TEM & Hindrance DRM of hex occupied (all hexside TEM are NA)
-1	Stealthy
-2	Japanese (G1.63)

A26.2-.23 VICTORY POINTS (VP)

INFANTRY

2VP: **Squad**
Crew *[EXC: Landing Craft crew = 1VP]*

1VP: **Half-Squad** *[EXC: Carrier HS are worth 2VP when inherently present in a Carrier]*
Leader[1] (Infantry and Armor) +1 VP for each negative leadership modifier
Hero in a Seaborne Evacuation (only) G14.42

[1] Treat wounded leaders as unwounded for VP purposes *[EXC: Japanese leaders grant VP for side "face-up"]*

VEHICLES AND EQUIPMENT†

2VP: **Airplane** *[EXC: Gliders]*
Guns (non-vehicular)

1VP: **Vehicle** + 1VP for functioning MA + 1VP for each Multiple of five AF (FRU) of the AFV's single strongest AF + xVP for PRC as per the Infantry VP *[EXC: Motorcycle/Goliath/Boat/ Glider]*.
Landing Craft + 1VP for ≥ one still functioning MA + 1VP if fully-armored + 1VP its Inherent crew did not survive + 1VP each multiple of 50PP (FRU) in its Passenger capacity.

LC and its PRC are NA for CVP/Exit VP if LC exits playing area carrying a Blaze counter.

†VEHICLES AND EQUIPMENT IN THE DESERT

Any scenario that specifies Desert Victory Points (DVP) uses the following method for VP/CVP calculation: Each Gun/Vehicle has a DVP value equal to 10% (FRU) of its printed Basic Point Value even if dm/Malfunctioned/Disabled. *[EXC: U.S./German mortar halftracks (SPW 250/7, SPW 251/2; M4, M4A1, M21), British IP Carrier 3-in. Mortar, 2pdr Portee. If the Inherent MA of these vehicles is currently Removed/unloaded, the vehicle's DVP value is 2 if it is an AFV, or 1 if it is unarmored; otherwise, calculate its DVP normally.]*

CASUALTY VICTORY POINTS (CVP) and EXIT VP

During play, each enemy unit captured[2]/eliminated[3] and each friendly unit exited according to the Victory Conditions is worth its normal VP value.[4]

[2] A Captured Chinese Gun, dm 76-82mm MTR, or vehicle has its VP value quadrupled at game end.

[3] A prisoner eliminated due to an attack by its own side is immediately worth double CVP to its captor.

[4] Vehicles under Recall and broken personnel grant no Exit VP *[EXC broken Personnel exited in a Seaborne Evacuation grant normal VP]*.

A14.3 SNIPER ATTACK Δ



dr 1:	Eliminates SMC, Dummy stack, or (as per 14.4) Sniper; Stuns and Recalls CE crew; breaks MMC (or Reduces MMC that does not break); breaks Inherent crew of unarmored-vehicle/Partially-Armored-AFV; immobilizes unarmored vehicle (see 14.33).
2:	Eliminates Dummy stack; Wounds SMC; Stuns CE crew; pins MMC not immune to Pin results, Inherent crew of unarmored-vehicle/Partially-Armored-AFV, or Sniper (14.31).
≥ 3:	No Effect

A14.4 SNIPER CHECK DRM: Leadership, Hero: -1; per HS: -1

A16 BATTLEFIELD INTEGRITY

ELR Level Loss if Final Integrity Check DR ≥ 12

DRM	Cause
+1	Per Integrity Base Loss
+1	Enemy Unopposed Armor or Air Support
+1	Side has no Good Order leader
+x	Leadership modifier of best Good Order leader
-1	Friendly Unopposed Armor or Air Support

Regaining ELR Level: DR ≤ 2; only negative DRM apply

ΔA15.1 HEAT OF BATTLE

DR follows any Original 2 MC/Rally DR
NA to Banzai, Berserk, Climbing, Crew, Hero, Human Wave, Panji MC, Parachute, PRC, Self-Rally, Swimming, Unarmed, Wading Infantry/Cavalry

DR	Result
≤ 6	Hero Creation
5-8	Battle Hardening
9-11	Berserk †
≥ 12	Surrender *

* ***Treat as Berserk if:*** Japanese, Gurkhas, Partisans, Fanatics, Commissars, SS vs Russians, or subject to No Quarter (A15.5)

* ***Treat as Battle Hardening if:*** Japanese in Pillbox (G1.62) or Cave (G11.97); or if Assaulting/Evacuating side in a Beach Location or on a Pier (G14.32)

† Non-elite Italian/Axis Minors Surrender on a final Heat of Battle DR ≥ 10

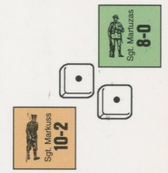
† ***Treat as Battle Hardening if:*** no Known enemy units in its LOS (A15.44); Japanese in Pillbox (G1.62) or in a Cave (G11.97); its closest Known enemy unit is in Ocean (G13.491); Assaulting/Evacuating side in a Beach Location or on a Pier (G14.32)

DRM	Cause
-1	Elite, British, Finnish (each)
+1	Broken, Inexperienced (each)
+1	French, Partisan
+2	Russian, Allied Minor
+3	Axis Minor, Italian
+4	Japanese

A18.2 LEADER CREATION

dr follows Original 2 on the *first* MMC Self-Rally or Δ any MMC CC DR (NA Finns/Japanese)

dr	leader
≥ 7	None
6	6+1
4,5	7-0
2,3	8-0
≤ 1	8-1



drm	Cause
-1	U.S., British, German
-1	vs AFV, or per odds column < 1-1
-1	Base unit had Morale Level ≥ 8
+1	Base unit had Morale Level ≤ 6
+1	Base unit was broken
+1	Russian, Italian, G.M.D.

SUPPORT WEAPONS CHART



SW	Operational Capabilities: 3 IPC Squad	3 IPC Crew/HS	1 IPC(2PP Max) SMC
LMG	1A	1B	1/2 FP; C, D
MMG	1A	1B	1/2 FP; C, D
HMG	1A	1B	1/2 FP; C, D
ATR	1A	1B	1
FT	1E	1B, E	1E
DC	1E	1B, E	1E
PIAT	1A	1B	1
BAZ/PSK	1A	1B	C, D
Radio	NA	NA	1
Lt. MTR	1A	1B	1C
PF, PFk	1A, F	1B, F	1B, F
ATMM	1G	1G	1G
MOL	1H	1B,H	1H
MOL-P	1A, J	1B, J	C, D, K
INF/RCL	1A, J	1B, J	M

NOTES:

A. May fire two by forfeiting inherent FP
B. May fire one SW but at cost of inherent FP
C. Any two SMC may fire at full effect
D. Hero fires by adding 1 to MG IFT DR (using full FP) or TH DR
E. Use by other than elite is use of captured SW
F. German inherent SW; requires dr 1-3 for each use
drm: Aug—Sep '43: +1 (PFk; SSR only), '45: -1
Original dr 6: pinned (broken if already pinned)
G. German inherent SW; requires dr 1-3 for each use
Pinned: NA Original dr 6: pinned
H. Inherent SW by SSR only; requires dr 1-3 for each use; Pinned NA
J. Use by MMC other than crew is non-qualified use
K. Use by one SMC is non-qualified use
M. Two U.S. SMC are qualified to fire U.S. weapon; which U.S. Hero may fire by adding 1 to TH DR
drm for Cases F, G, H: HS/crew: +1; SMC +2; CX +1; vs non-AFV: +1
Portage Costs: As per counter listing *[EXC: Wounded: 5PP (A17.2)]*

A7.37 IIFT

| Backblast dr | | |

A./G. NATIONAL CAPABILITIES CHART

Broken Morale Level is listed as superscript to Morale Level

NATIONALITY CREW (BPV)	LG	CLASS	SQUAD	BPV	HS	BPV	ORDNANCE TH# Color OBA ACCESS	HoB DRM	SMOKE GRENADES	MISCELLLANEOUS
GERMAN	4	(E)	6^{2}-5-8^{9}	15	3-4-8^{8}	7	Black	0	Smoke	• PF Inherent 10/43+ (7-9/43 by SSR; C13.3) • ATMM Inherent 1944+ (C13.7) • SS: Disrupt/RtPh-Surrender NA vs Russians (A15.5); may Massacre (A20.4); Squad Assault Fire 1944+ (A25.11)
		E	8^{3}-3-8^{8}	16	3-3-8^{7}	6	**8B/3R**			
2-2-8^{8} (8)		[E]	4^{2}-6-8^{8}	13	2-4-8^{7}	5				
1-2-7^{7} (7)		(E)	5^{2}-4-8^{8}	13	2-3-8^{7}	5				
		1	4^{1}-6-7^{7}	10	2-4-7^{6}	4				
		2	4-4-7^{7}	7	2-3-7^{6}	3				
		C	4-3-6^{5}	5	2-3-6^{4}	2				
ITALIAN	8	E	4^{1}-4-7^{7}	8	2-4-7^{6}	3	**Red**	+3	Smoke	• Escape NA (A20.55) • 1 & C: Surrender on HoB Final DR ≥ 10 (A15.4); Deploying NA (A25.61); +1 CC Capture DRM NA (A25.63); Lax (A25.64); 1 PAATC (A25.65)
		[1]	3-4-7^{6}	6	1-3-7^{5}	2	**7B/3R**			
2-2-7^{7} (6)		1	3-4-6^{5}	5	1-3-6^{4}	2				
1-2-6^{5} (5)		C	3-3-6^{5}	3	1-2-6^{4}	1				
FINNISH	8	E	8-3-8^{8}	17	3-3-8^{7}	8	**Red**	-1	—	• In Finland: Self Rally/Deploy/Recombine; No Cowering; E & 1 Stealthy (A25.7) • Leader Creation NA (A18.2)
2-2-8^{8} (8)		1	6-4-8^{8}	15	2-4-8^{7}	7	**6B/3R**			
1-2-7^{7} (7)		G	5-3-8^{8}	13	2-3-8^{7}	6				
AXIS MINOR	6	E	4^{1}-4-7^{7}	8	2-4-7^{6}	3	**Red**	+3	Smoke	• Escape NA (A20.55) • 1 & C: 1 PAATC (A25.81); Surrender on HoB Final DR ≥ 10 (A15.4)
2-2-7^{7} (6)		1	3-4-7^{6}	6	1-3-7^{5}	2	**6B/3R**			
1-2-6^{5} (5)		C	3-3-6^{5}	3	1-2-6^{4}	1				
JAPANESE	5	E	4^{2}-4-8	16	2-3-8^{8}	7	Black	+4	SMOKE	* Reduced Strength (G1.1; G1.3) • SMC PTC/Pin/break NA (G1.4) • Ldr: Replace NA; Cas MC = elim; ML/rally/beserk as "Commissar" (G1.41) • T-H Heroes (G1.421) & ATMM (G1.4231) • Banzai Charge (G1.5) • E & 1 Stealthy, C & Banzai Lax (G1.6) • ATR/MMG/HMG B# penalty (G1.611) • NA: PAATC; Escape; RtPh Surrender; Disruption (G1.2); Encircled lower ML (G1.62) Leader Creation (G1.62) • LLMC = LLTC if unbroken • May Massacre; -1 Interrog DRM (G1.621) • -2 Concealment drm * enemy +2 search drm (G1.63) • Hand-to-Hand CC & Hara-Kiri (G1.64-.641)
			*3^{2}-4-8				**5B/2R**			
2-2-8 (10)										
*1-2-8		1	4^{1}-4-7	13	2-3-7^{7}	6				
			*3^{1}-4-7							
1-2-7^{8} (8)		2	3-4-7	10	1-3-7^{6}	4				
			*2-3-7							
		C	3-3-6	6	1-2-6^{5}	2				
			*2-2-6							
ALLIED MINOR	7	E	4^{1}-5-8^{7}	12	2-4-8^{6}	5	**Red**	+2	Smoke	• +1 Broken Morale vs Italians (A25.9) • 1 & G: 1PAATC (A25.91
2-2-8^{7} (7)		1	4-5-7^{6}	8	2-3-7^{5}	3	**6B/3R**			
1-2-7^{6} (5)		G	4-3-7^{6}	6	2-2-7^{5}	2				
RUSSIAN	8	E	6-2-8^{8}	12	3-2-8^{7}	5	**Red**	+2	—	• May Massacre (A20.4) • Deploying NA (A25.2) • Entrench -1 DRM (A25.21) • Commissars (NA 11/42+), Human Wave (A25.23) • Riders 1942+ (D6.2)
		[E]	4-5-8^{8}	11	2-4-8^{7}	5	**5B/2R**			
2-2-8^{8} (6)		[1]	4-4-7^{7}	7	2-3-7^{6}	3				
1-2-7^{7} (5)		1	5-2-7^{7}	7	2-2-7^{6}	3				
		C	4-2-6^{5}	4	2-2-6^{4}	1				
AMERICAN							Pre-44: **Red**	0	SMOKE	* Plentiful ammo included (A25.33): deduct one Black for Normal ammo
Army	5.5	E	7^{3}-4-7^{8}	14	3-3-7^{7}	6	44+ : **Black**			
		[E]	6^{3}-6-7^{8}	14	3-4-7^{7}	6	**10B*/3R**			
2-2-7^{8} (7)		1	6^{3}-6-6^{8}	11	3-4-6^{7}	4				
1-2-6^{7} (6)		2	5^{2}-4-6^{7}	7	2-3-6^{6}	3				
		G	5-3-6^{7}	6	2-2-6^{6}	2				
Early (P.A.)	5.5	2	4^{1}-4-7^{7}	7	2-3-7^{6}	3				• Used vs Japanese in Phi. Is., 12/41-5/42 (G17.2)
		G	3-3-6^{6}	4	1-2-6^{5}	2				
U.S.M.C.	4.5	(E)	7^{3}-6-8^{8}	17	3-4-8^{7}	7				• Disruption NA (G17.1) • 7-6-8 Self-Deploy (G17.11) • Vehicle *[EXC:LC]* crew: Army 1-2-6^{5} (G17.13)
2-2-8^{8} (8)		(E)	6^{3}-6-8^{8}	16	3-4-8^{7}	7				
		[(E)]	5^{2}-5-8^{8}	13	2-3-8^{7}	5				
		(E)	4^{2}-5-8^{8}	12	2-4-8^{7}	6				
BRITISH*	5	E	6^{2}-4-8^{8}	14	3-3-8^{7}	6	**Black**	-1	Smoke	* Includes all Commonwealth & Free French • E & 1: No Cowering (A25.45) • ANZAC Stealthy unless G (A25.44) • Gurkha: -1 CC DRM; No Disrupt/RtPh Surrender; Commando unless G (A25.43; Stealthy (A11.17)
		[E]	4^{2}-5-8^{8}	13	2-4-8^{7}	5	**8B/2R**			
2-2-8^{8} (8)		1	4^{2}-5-7^{7}	10	2-4-7^{6}	4			44+ : SMOKE	
1-2-7^{7} (7)		2	4-4-7^{7}	7	2-3-7^{6}	3				
		G	4-3-6^{6}	5	2-2-6^{5}	2				
FRENCH*	6	E	4^{1}-5-8^{7}	12	2-4-8^{6}	5	**Black**	+1	Smoke	* Includes Vichy
2-2-8^{7} (7)		1	4-5-7^{6}	8	2-3-7^{5}	3	AFV: **Red**			
1-2-7^{6} (5)		G	4-3-7^{6}	6	2-2-7^{5}	2	**6B/2R**			
CHINESE										
G.M.D.	8;6*	[E]	5^{2}-3-7^{8}	9	2-2-7^{7}	3	**Red**	0	SMOKE	* If Majority Squad Type is 5-3-7 (G18.42); (G18.8) **If Majority Squad Type is 3-3-7 or 3-3-6 (G18.42); • Deploying NA; Lax at Night; +1 Leader Creation drm; 1 & C 1PAATC (G18.2); Human Wave (G18.5); Dare Death Squads *[EXC: 5-3-7]* (G18.6)
		E	4^{1}-4-7^{7}	8	2-3-7^{6}	3	**5B/2R**			
2-2-7^{7} (6)		1	3-3-7^{6}	5	1-2-7^{5}	2	**6B/2R***			
1-2-6^{5} (5)		C	3-3-6^{5}	3	1-2-6^{4}	1	**5B/3R****			
Red	7	*	3-3-7^{6}	7	1-2-7^{5}	3	**Red**	+1	—	* Neither E nor C/G (A25.24) • Partisans; No Cowering (G18.3); Commissars (G18.31); Human Wave (G18.5); Dare Death Squads (G18.6)
2-2-8^{8} (7)										
1-2-7^{7} (6)										
PARTISAN	7	*	3-3-7^{6}	6	1-2-7^{5}	2	**Red**	+1	—	* Neither E nor C/G (A25.24) • Stealthy (A11.17); may Massacre (A20.4); Disrupt & RtPh-Surrender NA (A25.24)

CONTROL (A26.1)

	Location	Hex	Building
Armed Good Order Infantry MMC (A)	Yes	Yes (B)	Yes (C)
Armed Vehicle/Its PRC	Yes (D)	Yes (D,E)	No

A If the MMC either entered or Mopped Up that Building/Hex/Location while there is no

A9.22 FIRE LANES

FL is declared when the Original DFF attack is announced (before it is resolved).

Fire Lane not allowed if:
- MG marked First/Final Fire
- firing > Normal Range
- different level target *[EXC: Continuous Slope: B.5]*
- MG using TPBF
- manning Infantry Pinned
- MG not Good Order*

Fire Lane Cancelled if:
- Original DFF IFT DR causes Manning Infantry Cower/SFF/FPF
- MG Malf/Elim
- Manning Infantry are: Pinned/Broken/Eliminated
- end of the current MPh
- enemy unit enters MG

	1-2-7[6] (5)		G	4-3-7[6]	6	2-2-7[5]	2				
★	**RUSSIAN**	8	E	6-2-8[8]	12	3-2-8[7]	5	Red	+2	—	• May Massacre (A20.4) • Deploying NA (A25.2) • Entrench -1 DRM (A25.21) • Commissars (NA 11/42+), Human Wave (A25.23) • Riders 1942+ (D6.2)
			[E]	4-5-8[8]	11	2-4-8[7]	5	**5B/2R**			
	2-2-8[8] (6)		[1]	4-4-7[7]	7	2-3-7[6]	3				
	1-2-7[7] (5)		1	5-2-7[7]	7	2-2-7[6]	3				
			C	4-2-6[5]	4	2-2-6[4]	1				
☆	**AMERICAN**							Pre-44: Red	0	SMOKE	* Plentiful ammo included (A25.33): deduct one Black for Normal ammo
	Army	5.5	E	7[3]-4-7[8]	14	3-3-7[7]	6	44+ : **Black**			
			[E]	6[3]-6-7[8]	14	3-4-7[7]	6	**10B*/3R**			
	2-2-7[8] (7)		1	6[3]-6-6[8]	11	3-4-6[7]	4				
	1-2-6[7] (6)		2	5[2]-4-6[7]	7	2-3-6[6]	3				
			G	5-3-6[7]	6	2-2-6[6]	2				
	Early (P.A.)	5.5	2	4[1]-4-7[7]	7	2-3-7[6]	3				• Used vs Japanese in Phi. Is., 12/41-5/42 (G17.2)
			G	3-3-6[6]	4	1-2-6[5]	2				
	U.S.M.C.	4.5	(E)	7[3]-6-8[8]	17	3-4-8[7]	7				• Disruption NA (G17.1) • 7-6-8 Self-Deploy (G17.11) • Vehicle *[EXC:LC]* crew: Army 1-2-6[5] (G17.13)
	2-2-8[8] (8)		(E)	6[3]-6-8[8]	16	3-4-8[7]	7				
			[(E)]	5[2]-5-8[8]	13	2-3-8[7]	5				
			(E)	4[2]-5-8[8]	12	2-4-8[7]	6				
	BRITISH*	5	E	6[2]-4-8[8]	14	3-3-8[7]	6	**Black**	-1	Smoke	* Includes all Commonwealth & Free French • E & 1: No Cowering (A25.45) • ANZAC Stealthy unless G (A25.44) • Gurkha: -1 CC DRM; No Disrupt/RtPh Surrender; Commando unless G (A25.43; Stealthy (A11.17)
			[E]	4[2]-5-8[8]	13	2-4-8[7]	5	**8B/2R**			
	2-2-8[8] (8)		1	4[2]-5-7[7]	10	2-4-7[6]	4			44+ : SMOKE	
	1-2-7[7] (7)		2	4-4-7[7]	7	2-3-7[6]	3				
			G	4-3-6[6]	5	2-2-6[5]	2				
	FRENCH*	6	E	4[1]-5-8[7]	12	2-4-8[6]	5	**Black**	+1	Smoke	* Includes Vichy
	2-2-8[7] (7)		1	4-5-7[6]	8	2-3-7[5]	3	AFV: **Red**			
	1-2-7[6] (5)		G	4-3-7[6]	6	2-2-7[5]	2	**6B/2R**			
	CHINESE										
	G.M.D.	8;6*	[E]	5[2]-3-7[8]	9	2-2-7[7]	3	**Red**	0	SMOKE	* If Majority Squad Type is 5-3-7 (G18.42); (G18.8) **If Majority Squad Type is 3-3-7 or 3-3-6 (G18.42); • Deploying NA; Lax at Night; +1 Leader Creation drm; 1 & C 1PAATC (G18.2); Human Wave (G18.5); Dare Death Squads *[EXC: 5-3-7]* (G18.6)
			E	4[1]-4-7[7]	8	2-3-7[6]	3	**5B/2R**			
	2-2-7[7] (6)		1	3-3-7[6]	5	1-2-7[5]	2	**6B/2R***			
	1-2-6[5] (5)		C	3-3-6[5]	3	1-2-6[4]	1	**5B/3R****			
★	**Red**	7	*	3-3-7[6]	7	1-2-7[5]	3	**Red**	+1	—	* Neither E nor C/G (A25.24) • Partisans; No Cowering (G18.3); Commissars (G18.31); Human Wave (G18.5); Dare Death Squads (G18.6)
	2-2-8[8] (7)										
	1-2-7[7] (6)										
	PARTISAN	7	*	3-3-7[6]	6	1-2-7[5]	2	**Red**	+1	—	* Neither E nor C/G (A25.24) • Stealthy (A11.17); may Massacre (A20.4); Disrupt & RtPh-Surrender NA (A25.24)

CONTROL (A26.1)

	Location	Hex	Building
Armed Good Order Infantry MMC (A)	Yes	Yes (B)	Yes (C)
Armed Vehicle/Its PRC	Yes (D)	Yes (D,E)	No

A If the MMC either entered or Mopped Up that Building/Hex/Location while there is no armed enemy ground unit (including SMC or non-bypassing armed vehicles/PRC) in that Building/Hex/Location. Armed enemy vehicles/PRC in bypass prevent Hex and Location control, but not Building Control (A12.153, A26.11)

B If the unit is at ground level *[EXC: Bridge hexes can be controlled by Good Order Infantry MMC from either the Bridge Location or the Depression Location in the hex, A26.131. Pillbox hexes must be controlled by controlling the Pillbox Location and fulfilling the conditions of Hex Control via footnote A, A26.141]*

C The unit must be in a non-rooftop, non-subterranean level.

D If not in Bypass and there are no armed enemy units in the Location. Control reverts to its previous status the moment the vehicle leaves the Location A26.12.

E If the vehicle's Location is the only one in the hex.

Other Notes:

- Each side controls all Buildings/hexes/Locations within its exclusive setup area or board at scenario start.
- Control cannot be gained via Bypass.
- A moving unit need not survive Defensive First Fire in order to claim Control.
- Different hexes of a Rowhouse (B23.71) are considered one building for building control purposes (A26.14); Mopping Up a Rowhouse hex applies only to that hex alone, not the entire Rowhouse Building A12.153.
- Control of Locations/hexes/Buildings deliberately set on fire by Kindling is forfeited to the opponent A26.16.
- In order to Control a Pillbox Location, a unit must actually enter that Location (B30.91)
- Unhidden Caves not occupied by Good Order IJA MMC are controlled by any ADJACENT Good Order Allied Infantry MMC (G11.94)
- Entering an empty enemy-controlled building at ground level will gain control of that hex, building, and location for that side, but any other Locations of that Building must be either entered directly (and hexes entered at ground level) or be successfully Mopped Up in order for that side to gain Control of those Locations or hexes.

A22.6 MOLOTOV COCKTAILS

Available by SSR or DYO purchase only. (DYO cost of 1 pt per Squad which gives all personnel MOL capability)

Molotov Check dr (Δ)*	Result
≤ 3	Successful
≥ 4	No Effect

Molotov Check dr Modifiers

+1 HS/Crew
+2 SMC
+1 CX
+1 vs non-AFV

* MOL check only by unpinned, Good Order (or Berserk) Personnel unit. NA as SFF, FPF, or in *both* First and Final Fire (even if MOL not used in First Fire). MOL Check counts as use of SW. Only one MOL Check per FG. MOL must be combined with unit's available inherent FP (if any) and add 4 FP to FG after all modifications.

Molotov IFT DR

Using a MOL entitles firer +4 FP. The MOL 4FP bonus is *never* modified.
Colored dr 6 = unit breaks (one per FG); FP of that unit and MOL NA; **Flame** placed in thrower's Location.*
Colored dr 1 = **Flame** placed in target Location*
* Location must contain burnable terrain. (If Fortified Building or adverse weather, see A22.6111.)

After successful MOL Check, MOL used in one of three ways:

Attack NA across woods/orchard hexside *[EXC: across road hexside vs unit on road]*

1. vs Unarmored Target

Must be PBF/TPBF attack.

2. vs Armored Target

Must pre-designate AFV target. If Check dr successful, MOL vs AFV resolved on C7.34 TK Table(Δ), Small Arms plus MOL 4FP as Specific Collateral Attack vs Vulnerable PRC, Small Arms FP without MOL 4FP vs all other non-armored units in AFV Location.

vs Armored Target TK# Modifiers;

+2 OT AFV *or* +1 CE AFV, not both; -2 vs Moving/Motion vehicle; Same hex MOL attack = rear hit; TK Case A and B can apply but AF NA.

3. vs Terrain

+2 to Kindling Attempt DR (B25.11). **Colored dr** NA.

A9.22 FIRE LANES

FL is declared when the Original DFF attack is announced (before it is resolved).

Fire Lane not allowed if:

- MG marked First/Final Fire
- firing > Normal Range
- different level target *[EXC: Continuous Slope: B.5]*
- MG using TPBF
- manning Infantry Pinned
- MG not Good Order*

Fire Lane Cancelled if:

- Original DFF IFT DR causes Manning Infantry Cower/SFF/FPF
- MG Malf/Elim
- Manning Infantry are: Pinned/Broken/Eliminated
- end of the current MPh
- enemy unit enters MG Location *[EXC: unarmored Vehicle with no PRC]*

* Good Order = fully manned by Good Order Personnel unit; not Malfunctioned nor restricted by Ammunition Shortage

Each MG creates a separate Fire Lane (even if using the same Hex-Grain/IFT-DR as another) by placing a FL counter (even beyond the original DFF Location) within LOS *[EXC: "soft" Hindrances NA]* of manning Infantry. MG marked First Fired and manning Infantry may not Subsequent First Fire unless FL cancelled. See E1.71 Fire Lanes at night.

FIRE LANE RESIDUAL FP (FL RFP)

A Fire Lane exerts Residual FP in all same same-level (B.5) Locations from the Fire Lane counter to (but not including) the MG Location equal to one column to the left of the MG's normal IFT FP *[EXC: PBF doubles the reduced FP in Adjacent Locations]*.

FL RFP HINDRANCES[1]

HARD	SOFT
+ DRM to FL Residual FP attacks:	*not* added to FL placement/attack but cancel FFMO:
Bridge/Crag/Debris/Graveyard/ Olive-Groves/Orchard/Palm-Trees/ Seawall/wooden-pier/Wreck (/AFV)[2]	SMOKE/Grain/Brush/Kunai/Hut/ Vineyard/Marsh/FFE/ Heavy-(or denser)-Dust/ In-season Paddy

[1] Low Visibility (LV)/Desert Low Visibility (DLV) and NVR do not act as Hindrance to a FL nor do they cancel FFMO.
[2] Wreck/AFV Hindrance NA if Case J applies; see also Deir—F4.51)

Miscellaneous:

- Like other Residual FP, FL RFP is not halved vs a Dashing/concealed unit and does not cower.
- FL RFP is NA vs. units in Deir unless FL counter is in *that* Deir hex or no Deir Lip hexside crossed.
- FL can originate from a Cave, but NOT enter one.
- FL RFP has No Effect vs units ≥ ½-level lower than FL, and ½-level Hindrance whose base hex level ≥ ½-level lower than FL has no effect vs FL/FL RFP.
- FL RFP is not affected by CX/Leadership/Hero/Boresighting DRM.

OFFBOARD ARTILLERY FIREPOWER CHART

Gun Caliber Size	HE Concentration (100%)	Critical Hit (doubled)	Harassing Fire (33%)	Barrage (one column to the left)	NOBA "LOF" Hexes (50%)
60mm+ [U.S.]	8 [4]	16	2 [NA]	6 [NA]	—
70mm+	12	24	4	8	—
80mm+	16	30	4	12	—
100mm+	20	36	6	16	8
120mm+	24	36(-1)	8	20	12
150mm+	30	36(-3)	8	24	12
200mm+	36	36(-4)	12	30	16
250mm+	36(-1)	36(-5)	NA	NA	16
300mm+	36(-2)	36(-6)	NA	NA	16(-1)
350mm+	36(-3)	36(-7)	NA	NA	16(-1)
400mm+	36(-4)	36(-8)	NA	NA	16(-2)

Harassing Fire and Barrage NA for NOBA and U.S. 60mm mortars.

D4.22 HD MANEUVER ATTEMPT

Two extra MP plus one MP to Stop

dr 1:	3 or less hexsides are HD
dr 2:	2 or less hexsides are HD
dr 3:	1 hexside is HD

drm:
BU: +1; Russian CT AFV: +2; Armor Leader DRM

D8.3 BOG REMOVAL

Freed on Colored dr of 1-4
Start MP = Colored dr × White dr or ALL MP
(and × 2 if not tracked)

Colored dr	Result
1-4	Freed
5	Mired
6-7	Immobilized

MIRED +1 Bog dr

BOG DR ≥ 12

Mired: +1 drm to colored dr CE AFV Assistance: -1

B11.41 CLIMBING/FALLING DR Δ

10-11 DR: no move allowed
≥ 12 DR: unit is eliminated
+1 DRM: rain, snow, heavy winds

B24.11 RUBBLE CREATION BY HE ATTACK Δ

Any HE attack ≥ 70mm causing Original KIA allows Rubble dr
Rubble dr: dr ≤ Original KIA # causes Rubble
drm: +1 for stone building
Lower levels will collapse on Final second dr ≥ 6
drm: +1 per non-rooftop level above rubble
Upper levels Falling Rubble (B24.12): Final colored dr ≥ 7 = Spread
white dr = Direction
colored drm: +1 per non-rooftop level above ground level

B27.11 ENTRENCHING ATTEMPT & DRM

Attempt during PFPh; all units TI
Squad DR ≤ 5; Crew/HS: +1 DRM; Russian: -1 DRM

B23.41 CELLARS; AFV Entry of Building Δ

Bog Check +3 dr (+4 if stone) to white dr
Colored dr ≤ 0 = rubbled; -1 colored drm wooden
or Single Story House; Original 6 colored dr = cellar

D8.21 BOG CHECK DRM

DR + DRM ≥ 12 results in Bog Δ

BOG DR ≥ 12

DRM	Cause
+1	Vehicle has Normal Ground Pressure
+2	Vehicle has High Ground Pressure
+1	Vehicle is towing ordnance [1] or trailer
+1	Ground is specified as soft,[2] mud,[2] or snow-covered [3]
+1	Ground is specified as Deep Snow [3]
+1	Vehicle is not fully-tracked
+1	Vehicle has Truck-type MP Expenditure
+1	Making an Abrupt Elevation Change
+1	Exiting a Deep Stream & vehicle is neither amphibious, nor water-proofed
+1	Gaining elevation and entering woods
+2	Moving into Wire
+3	*Entry of woods, graveyard, wooden building, or rubble at half MP allotment
+4	*Entry of stone building at half MP allotment

* +1 instead if moving from Factory hex to non-rubble hex within the same Factory (B23.742)
[1] NA if ordnance is 76-107mm Mortar
[2] NA if on paved road or in a building hex
[3] NA if in building hex or on plowed road

B8.42 SEWER EMERGENCE CHART & drm Δ

dr	Action Required
≤ 4	May emerge concealed during APh; not subject to DF
5-6	Cannot emerge in this Game Turn; not subject to DF
≥ 7	Discovered: cannot emerge; is subject to DF

drm	Cause
-1	Manhole Location is occupied by friendly units
-1	Manhole not in enemy LOS or is Hindered by ≥ +2
+1	Sewer units are currently lost
+1	Per enemy Good Order MMC in Manhole Location
+1	Enemy units are in adjacent sewer hex

B24.7 CLEARANCE ATTEMPTS & DRM

Rubble, Flame, Wire, Mines, Set DC, Roadblock Final DR ≤ 2

DRM	Condition
-1	Clearance attempt by Squad
-1	Per extra HS/Crew (-2 per extra squad) or *Hero
+y	the leadership DRM of one leader (unless alone)
-2	*Per Sapper Squad (-1 per Sapper HS)
-5	@Per bulldozer
+x	Labor Status DRM
+z	†EC DRM (B25.5)

* vs Mine/Set DC/Wire Only; @ vs Rubble/Flame/Roadblock; † Applicable only to Flame

D2.5 EXCESSIVE SPEED BREAKDOWN DRM Δ

MP Gain ≤ 1/4 MP Allotment (FRD)
Breakdown: DR + MP Gain + ESB DRM ≥ 12
Black MP (FRD) Red MP (FRU)

ESB Nationality of Manufacturer DRM:

0:	U.S. (a), Czech (t)
+1:	Russian (r)
+2:	Britain (b), Germany (g)
+3:	French (f), Italian (i), All others

TC Immobilized D5.5

B25.63 WIND FORCE Δ

dr 1-3:	No Wind
dr 4-5:	Mild Breeze
dr 6:	Heavy Winds

Mild: As Per Wind Direction Diagram
Heavy: Automatic Flame Spread to 3 adjacent hexes
Gusts: (DR 12): Flame spreads to adjacent hex; one Blaze spreads Flame two hexes (B25.651)

B25.65 WIND CHANGE: Δ

DR 2: Change DR 12: Gusts

dr	Result
1	Direction 1 CW
2	Direction 2 CW
3	Direction 1 CCW
4	Direction 2 CCW
5	Force Increases 1
6	Force Decreases 1

B25.6 SPREADING FIRE DRM Δ

+1	to higher elevation
-1	to lower elevation
-2	not directly attached
-1	*to Fortified Building
+X	*EC DRM
+Y	Wind Direction if Mild

BLAZE

* Applicable to Flame/Blaze Spread DR (B25.151)

B25.12 FT FIRES Δ

After Original K/KIA, make Kindling
DR & add EC DRM; ≥ K# = Flame

D2 NON-TERRAIN RELATED VEHICULAR MP EXPENDITURES

1 MP Per Hexspine Change in VCA (D2.11)
2 MP Per Hexspine Change in VCA in woods/building/rubble terrain (D2.11)
1 MP per start from a dead stop (D2.12)
1 MP to stop movement (D2.13)
1 MP per vehicle or wreck (D2.14) *[EXC: Motorcycles]*
2 MP per vehicle or wreck if using road movement rate (D2.14) *[EXC: Motorcycles]*
1 MP per road hex if BU (D2.16)
Minimum Move: ALL MP plus end MPh in Motion Status (D2.15)
Reverse Move: Tracked: 4 × COT, Truck: 3 × COT, AC: 2 × COT (D2.21)
Bypass: 2 × COT per hexside other than building/woods obstacle bypassed (D2.3)
Bypass VCA Change: 1MP; MUST move into new hex/hexside (D2.33)
HD Maneuver Attempt: Two extra MP following VCA change or hex entry (D4.22)
Load/Unload Infantry: 1/4 MP allotment per MF of Infantry expended (D6.4-.5)
OVR Attack: 1/4 MP allotment (D7.1) in addition to COT to enter hex
Bog Removal: If freed; MP = Colored dr x white dr or ALL (× 2 if non-tracked vehicle) (D8.3)
Smoke Dispenser Firing: 1 MP during own MPh (D13.2)
Hooking/Unhooking Guns: 1/2 or 2/3 MP allotment (C10.11)
Intermediate Level of Abrupt Elevation Change: 4 MP Ascend; 2 MP Descend (B10.51)
Fully-Tracked inside Factory: 1/4 MP allotment plus Bog Check (B23.742)
Entry of enemy AFV hex (D2.6): must be out of LOS or able to destroy or shock that AFV with an Original TK or IFT DR of 5

KINDLING NUMBERS

SMC NTC required

7:	Wooden Building*
8:	Stone Building*
9:	Brush, Woods
10:	Grain
11:	Orchards

Fortified Bldg: -1 DRM
Leadership: -x DRM
* EC DRM NA

B25.11 KINDLING ATTEMPT

Final Kindling DR ≥ K# = Flame
Treat as Prep Fire Attempt
DRM: EC DRM; HS/Crew: -1; SMC: -2; MOL: +2

B25.13 HE FIRES Δ

After non-Rubble Original KIA, make
Kindling DR & add EC DRM; ≥ K# = Flame

B25.6 SPREADING FIRE Every AFPh

Spread DR	Terrain
≥ 10	Cactus Patch
≥ 9	Stone Building/Rubble, Orchard, Olive Groves
≥ 8	Wooden Building/Rubble, Woods Road
≥ 7	Woods
≥ 6	Grain, Brush, Vineyards

Each hex checks only once but with highest applicable DRM

B25.5 ENVIRONMENTAL CONDITIONS (EC) Δ

dr	EC	EC DRM/drm
≤ 0	Snow	-3
1	Mud	-3
2	Wet	-2
3	Moist	-1
4	Moderate	0
5	Dry	+1
≥ 6	Very Dry	+2

Month	drm
Jan, Feb	-3
Dec, Mar	-2
Nov, Apr	-1
Jun, Sep	+1
Jul, Aug	+2

B21.121 RIVER CURRENT FORCE & DEPTH Δ

FORCE: dr* ≤ 1: Heavy, 2-5: Moderate, ≥ 6: Slow
DEPTH: dr* ≤ 1: Flooded, 2-5: Deep, ≥ 6: Fordable
* dr modified by EC drm (B25.5)

A12.152 SEARCHING: (MMC only)

dr = number of hexes which CANNOT be searched

drm	Cause
-1	Per Stealthy Searching unit
-1	Per HS equivalent > one HS Searching
+x	Leadership factor of best participating leader
+1	Per Lax or CX Searching unit (per each condition)
+2	vs Japanese *[EXC: vs building/rubble only]* (G1.63)

A12.154 SEARCH & MOPPING UP CASUALTIES dr ≤ 1 = IFT K result

A3 SEQUENCE OF PLAY

1. Rally Phase (RPh)
2. * Prep Fire Phase (PFPh)
3. * Movement Phase (MPh)
   Defensive First Fire
4. * Defensive Fire Phase (DFPh)
   Defensive Final Fire
5. * Advancing Fire Phase (AFPh)
6. Rout Phase (RtPh)
7. Advance Phase (APh)
8. Close Combat Phase (CCPh)

* SAN are applicable
Dual Player Participation Phase

A7 INFANTRY FIRE TABLE (IFT)

DR/FP	Backblast dr ATR 1/20	2/30	MOL 4/37	[6/50	A-P Minefields 8/60	PFk C37 12/70]	PF sN 16/80	C75 20/100	C105 24/120	DC 30/150	A-T Mine Set DC 36+/200+
★Vehicle	3	4	5	6	7	8	9	10	11	12	13
≤ 0	1KIA	2KIA	2KIA	3KIA	3KIA	3KIA	4KIA	4KIA	5KIA	6KIA	7KIA
1	K/1	1KIA	1KIA	2KIA	2KIA	2KIA	3KIA	3KIA	4KIA	5KIA	6KIA
2	1MC	K/1	K/2	1KIA	1KIA	1KIA	2KIA	2KIA	3KIA	4KIA	5KIA
3	1MC	1MC	2MC	K/2	K/2	K/3	1KIA	1KIA	2KIA	3KIA	4KIA
4	NMC	1MC	1MC	2MC	2MC	3MC	K/3	K/4	1KIA	2KIA	3KIA
5	PTC	NMC	1MC	1MC	2MC	2MC	3MC	4MC	K/4	1KIA	2KIA
6	—	PTC	NMC	1MC	1MC	2MC	2MC	3MC	4MC	K/4	1KIA
7	—	—	PTC	NMC	1MC	1MC	2MC	2MC	3MC	4MC	K/4
8	—	—	—	PTC	NMC	1MC	1MC	2MC	2MC	3MC	4MC
9	—	—	—	—	PTC	NMC	1MC	1MC	2MC	2MC	3MC
10	—	—	—	—	—	PTC	NMC	1MC	1MC	2MC	2MC
11	—	—	—	—	—	—	PTC	NMC	1MC	1MC	2MC
12	—	—	—	—	—	—	—	PTC	NMC	1MC	1MC
13	—	—	—	—	—	—	—	—	PTC	NMC	1MC
14	—	—	—	—	—	—	—	—	—	PTC	NMC
≥15	—	—	—	—	—	—	—	—	—	—	PTC

FP or DR MODIFIERS:

By overstacked unit; per vehicle/squad (A5.12) ..... +1
vs overstacked units; per squad (A5.131) ..... -1
PBF vs adjacent hex ≤ 1 level higher (A7.21) ..... x2 †
Heavy Payload (C.7) per 50mm or 8 FP excess ..... -1
Area Fire (concealed target; A7.23) x1/2
Motion (D2.42)/Bounding (First) Fire (D3.31) ..... x1/2 †
From IN Deep or Shallow Stream (B20.6) x1/2
HE vs Fording Infantry or Marsh (C3.53) x1/2
Cowering (A7.9) [Inexperienced: 2].....one column to left
Set DC (A23.71) ..... -3
From Encirclement (A7.7) ..... +1
TPBF vs same Location (A7.21) ..... x3 †
By Fording Infantry (B21.42) x1/2
By unit on Wire (B26.31) ..... +1
OVR vs Motion Vehicle (D7.12) ..... +2
By CX unit (A4.51) ..... +1
Mounted Fire *[EXC: ht & Charge]* (D6.22, 6.72) x1/2
Critical Hit (C3.71) x2
vs Personnel unit with FT (A22.4) ..... -1
Defender's TEM/LOS Hindrance ..... +x†
Firer is pinned (A7.8) x1/2
FFMO/FFNAM (A4.6) each ..... -1
From marsh (B16.32) x1/2
vs Cavalry (A13.5) ..... -2
vs Motorcyclist (D15.5) ..... -1
AFPh Fire (A7.24) ..... x1/2 †
OVR vs Infantry in OG (D7.15) ..... -1
Hazardous Movement (A4.62) ..... -2
Long Range Fire (A7.22) x1/2

C# = Canister Firepower
† *EXC: FT NA*

A15.1 HEAT OF BATTLE

DR follows any Original 2 MC/Rally DR NA to Banzai, Berserk, Climbing, Crew, Hero, Human Wave, Panji MC, Parachute, PRC, Self-Rally, Swimming, Unarmed, Wading Infantry/Cavalry

Δ

DR	Result
≤ 6	Hero Creation
5-8	Battle Hardening
9-11	Berserk †
≥ 12	Surrender *

* ***Treat as Berserk if*** Japanese, Gurkhas, Partisans, Fanatics, Commissars, SS vs Russians, or subject to No Quarter (A15.5)
* ***Treat as Battle Hardening if:*** Japanese in Pillbox (G1.62), Cave (G11.97); or Assaulting/Evacuating side in a Beach Location or on a Pier (G14.32)
† ***Treat as Battle Hardening if:*** no Known enemy units in its LOS (A15.44); Japanese in Pillbox (G1.62); in a Cave (G11.97); its closest Known enemy unit is in Ocean (G13.491); Assaulting/Evacuating side in a Beach Location or on a Pier (G14.32)
† Non-elite Italian/Axis Minors Surrender on a final Heat of Battle DR ≥ 10

DRM	Cause
-1	Elite, British, Finnish (each)
+1	Broken, Inexperienced (each)
+1	French, Partisan
+2	Russian, Allied Minor
+3	Axis Minor, Italian
+4	Japanese

A18.2 LEADER CREATION

dr follows Original 2 on the *first* MMC Self-Rally or any MMC CC Δ DR (NA Finns/Japanese)

dr	Leader
≥ 7	None
6	6+1
4,5	7-0
2,3	8-0
≤ 1	8-1

drm	Cause
-1	U.S., British, German
-1	vs AFV, or per odds column < 1-1
-1	Base unit had Morale Level ≥ 8
+1	Base unit had Morale Level ≤ 6
+1	Base unit was broken
+1	Russian, Italian, G.M.D.

A11.4 AMBUSH

< enemy dr by at least 3
(by at least 2 if non-illuminated ATTACKER at night)

drm	Cause
+2	Cavalry, vehicle, pillbox
+2	Above Bank counter
+1	BU or Stunned (each)
+1	CX, Broken, Pinned (each)
+1	Lax, Berserk (each)
+1	Above Panji counter
+1	ATTACKER in Jungle, Kunai, Bamboo
+x	Leadership if not alone
-1	Stealthy
-2	Concealed

A17 WOUNDS Δ

K	(A7.302, A14.3)
CC	(A11.11)
Fate	(A10.64)

dr: 1-4 = Wounded
≥ 5 = KIA

drm: +1 if wounded already

A11.11 CLOSE COMBAT TABLE (CCT)

CC MELEE

Odds Ratio:	< 1-8	1-8	1-6	1-4	1-2	1-1	3-2	2-1	3-1	4-1	6-1	8-1	10-1	> 10-1
Kill Number:	0 2	1 3	2 4	3 5	4 6	5 7	6 8	7 9	8 10	9 11	10 12	11 13	12 14	13 15

Red Kill Numbers apply to Hand-to-Hand CC only. NA by/vs vehicles/PRC/pillbox-occupants (G1.64, J2.31)

Sequential CC: Ambush, AFV, Prisoner * Applicable only to CC vs vehicles; DR ≤ CCV *CCV: Squad 5, Crew 4, HS 3, SMC 2
CCV Modifiers: Assault Engineers: +1, Inexperienced: -1. extra SMC: +1, halved FP: -1 (per each application)
CC or Firepower DRM:

by Ambush (NA during Melee).....(vs Ambush +1).....-1
vs Crest/ski/Truck Passengers.....(by same: +2)..... -2
vs CX/TI/Wire unit/Riders.....(by same: +1).....-1
Capture Attempt.....(vs Inexperienced Infantry: -1).....+1
vs Withdrawing Infantry (A11.2).....(per Covering unit: +1).....-2
vs Broken Unit (A11.16).....-2
by armed, unpinned Gurkha (A25.43)/Japanese (G1.64)
vs Infantry/Cavalry in HtH CC.....-2
vs Concealed unit (A11.19).....x1/2
by Guarding/Motion/Pinned unit (per application).....x1/2
by Overstacked per excess squad (A5.12).....+1
vs Bank unit (G8.212)/Panji unit (G9.21).....(by Same: +1)..... -1
by vehicle on Narrow Street (B31.132).....+1
by armed, unpinned Dare-Death MMC (G18.62) vs Personnel.....-1
*With ATMM (C13.7).....-3
*vs Motion/non-stopped vehicle (A11.51).....+2
*vs OT/partially armored AFV (A11.61).....-2
*vs CE CT or abandoned AFV (A11.61).....-1
*vs vehicle with no manned usable MG (A11.51).....-1
*vs unarmored vehicle (A11.51).....-3
*Per escorting Personnel HS/Crew (A11.51) (squad: +2).....+1
*vs Immobile AFV (A11.61).....-1
*Original 2 DR (A11.501).....[dr 1:Burn, 2: Elim, 3: Immob]
vs Overstacked per excess squad (A5.131).....-1
vs boat/amphibious passengers (E5.6).....(by same: +2).....-2
Leadership (if not alone) (A11.141)/Heroic (A15.24) DRM...+x/-1

SUPPORT WEAPONS CHART

LMG 3-8 | FT 24-1 | Radio 8

SW	3 IPC Squad	3 IPC Crew/HS	1 IPC(2PP Max) SMC	NOTES
	Operational Capabilities			
LMG	1A	1B	1/2 FP; C, D	**A.** May fire two by forfeiting inherent FP
MMG	1A	1B	1/2 FP; C, D	**B.** May fire one SW but at cost of inherent FP
HMG	1A	1B	1/2 FP; C, D	**C.** Any two SMC may fire at full effect
ATR	1A	1B	1	**D.** Hero fires by adding 1 to MG IFT DR (using full FP) or TH DR
FT	1E	1B, E	1E	**E.** Use by other than elite is use of captured SW
DC	1E	1B, E	1E	**F.** German inherent SW; requires dr 1-3 for each use
PIAT	1A	1B	1	drm: Aug-Sep '43: +1 (PFk; SSR only), '45: -1
BAZ/PSK	1A	1B	C, D	Original dr 6: pinned (broken if already pinned)
Radio	NA	NA	1	**G.** German inherent SW; requires dr 1-3 for each use
Lt. MTR	1A	1B	1C	Pinned: NA Original dr 6: pinned
PF, PFk	1A, F	1B, F	1F	**H.** Inherent SW by SSR only; requires dr 1-3 for each use; Pinned NA
ATMM	1G	1G	1G	**J.** Use by MMC other than crew is non-qualified use
MOL	1H	1B, H	1H	**K.** Use by one SMC is non-qualified use
MOL-P	1A, J	1B, J	C, D, K	**M.** Two U.S. SMC are qualified to fire U.S. weapon; which U.S. Hero
INF/RCL	1A, J	1B, J	M	may fire by adding 1 to TH DR
				drm for Cases F, G, H: HS/crew: +1; SMC +2; CX +1; vs non-AFV: +1
				Portage Costs: As per counter listing *[EXC: Wounded: 5PP (A17.2)]*

A14.3 SNIPER ATTACK Δ

dr 1:	Eliminates SMC, Dummy stack, or (as per 14.4) Sniper; Stuns and Recalls CE crew; breaks MMC (or Reduces MMC that does not break); breaks Inherent crew of unarmored-vehicle/Partially-Armored-AFV; immobilizes unarmored vehicle (see 14.33).
2:	Eliminates Dummy stack; Wounds SMC; Stuns CE crew; pins MMC not immune to Pin results, Inherent crew of unarmored-vehicle/Partially-Armored-AFV, or Sniper (14.31).
≥ 3:	No Effect

A14.4 SNIPER CHECK DRM: Leadership, Hero: -1; per HS: -1

A16 BATTLEFIELD INTEGRITY

ELR Level Loss if Final Integrity Check DR ≥ 12

DRM	Cause
+1	Per Integrity Base Loss
+1	Enemy Unopposed Armor or Air Support
+1	Side has no Good Order leader
+x	Leadership modifier of best Good Order leader
-1	Friendly Unopposed Armor or Air Support (each)

Regaining ELR Level: DR ≤ 2; only negative DRM apply

B. TERRAIN CHART (#. rule number referenced in Chapter B for each terrain type unless another rulebook chapter preceeds the #.)

Terrain	Example	LOS Obstacle /Hindrance	TEM/Indirect†	MF ENTRANCE COSTS Infantry	Cavalry	Horse Drawn	Motorcycle	Armored Car	MP ENTRANCE COST Fully Tracked	Halftrack	Truck	Kindle #/ /Spread #	Fortifiable	Notes
1. Open Ground	1B1	—	FFMO: -1*	1	1	1	3	3	1	1	4	—	Yes	NA if Height Advantage applies
2. Shellholes	2U6	—	+1©*	1 or 2*	2	2	2 & COT X	2 & COT	COT	COT	4 & COT	—	Yes	Treat as OG if entered at 1 MF
3. Road	1Y10/1Z8	—	DOT*	1	1	1	1/2	1/2 [BU:1]	1/2 [BU:1]	1/2 [BU:1]	1/2 [BU:1]	—	Pv No Ent/HIP Mines	FFMO if entered at road rate
4. Sunken Road	14T3	Depression	FFMO: -1*	2 R	2 R	NA R D	NA R	NA R D	NA R D	NA R D	NA R D	—	No Entrench	vs unit without Crest status
5. Elevated Road	13L5	Level-One	FFMO: -1*	2 R	2 R	NA R D	6 X R P	NA R D	5 R D	5 R D	NA R D	—	No Entrench	If Height Advantage NA
6. Bridge	5Y8	Hindrance	LOS: -1*/+1	NA R	NA R	NA R	NA R	NA R D	NA R D	NA R D	NA R D	—	No Ent/HIP Mines	If LOS is thru road depiction; otherwise +1; TEM: +1
7. Runway	14M6	—	-1*	1 R	1 R	1 R	3 R	3 R	1 R	1 R	4 R	—	Wire & Roadblock only	In any fire phase; NA vs armor
8. Sewer	1D5/1E4	—*	-2/NA	ALL@	NA	NA	NA	NA	NA	NA	NA	—	No	LOS to adjacent sewer hex only
9. Wall	2H1/2I1	Half-Level	+2/+1 ©	1 & COT	1 & COT	NA	NA P	NA	1 & COT	NA	NA	—	—	
9. Hedge	2T1/2U2	Half-Level	+1/0 ©	1 & COT	1 & COT	NA	NA P	3 & COT B	1 & COT	2 & COT B	NA	—	—	
9.5. Bocage	2T1/2U2	Level-One	+2/+1 ©	2 & COT	NA	NA	NA	NA	Z & COT B	NA	NA	—	—	
9.6. Hillside Wall/ Hedge	25X4-X5 25U3-U4	Half-Level	+2 or +1*© /+1 or 0*©	W	W	NA	W	W	W	W	NA	—	—	Wall/hedge respectively. Wall Advan and TEM NA to lower unit
9.7. Cactus Hedge	SSR	Half-Level	+1/0 ©	Y	NA	NA	W	W	W	W	NA	—	—	Wall/hedge hexsides
10. Hill	2E8	1-4 Levels	DOT*	DOT h	DOT h	DOT h	DOT H	DOT H	DOT H	DOT H	DOT H	—	Yes	+1 HA TEM if no other TEM
11. Cliff	2W5/2V4	—	-2/NA*	CLIMB	NA	NA	NA	NA	NA	NA	NA	—	—	vs climber; otherwise DOT
12. Brush	12AA10	Hindrance	0	2	2	2	4	4	2	2	6	9/6	Yes	Deep Snow becomes Open Ground
12.7. Vineyard	SSR	■ Hindrance	0	2 R	2 R	2 R	4 R	4 B R	2 B R	2 B R	6 B R	9/6	Yes f	
13. Woods	1C9	Level-One	+1/-1	2 R	4 C R	ALL B R	NA P R	ALL B R	ALL B*/Z D R	ALL B R	ALL B R	9/7	Yes	If no road, VBM, or TB
14. Orchard	6F5	■ Level-One* or Hindrance**	0	1	1	1	3 R	3 R	1 R	1 R	4 R	11/9	Yes	To higher LOS only in Apr-Oct **Max. Hindrance +1 with 2 Level advantage
14.7. Cactus Patch*	SSR	■ Half Level	+1	3 R	3 R	3 R	9 R	9 R	3 R	3 R	12 R	12/10	Yes f	"Ex-orchard" hexes. Always in season
14.8. Olive Grove*	SSR	■ Hindrance	+1	2 R	2 R	2R	6 R	6 R	2 R	2 R	8 R	11/9	Yes f	"Ex-orchard" hexes. Always in season
15. Grain	3K9	Hindrance*	0	1 1/2	1 1/2	1 1/2	4	4	1	1	5	10/6	—	June-Sept Only; MF/MP Apr-Sept
16. Marsh[Mudflat]	7G2	Hindrance	0*	ALL@ [2]	ALL C[2]	NA	NA [P]	NA	NA	NA	NA	—	No	HE FP halved; [Mudflat only]
17. Crag	15X9	■ Hindrance	+1	2	4 C	NA	NA	NA	NA	NA	NA	—	Wire only	
18. Graveyard	12W4	■ Hindrance	+1	1	2 C	NA [1]	4 [1]	NA [1]	Z B [1]	NA [1]	NA [1]	—	Yes	[via Grave road hexside only]
19. Gully	5Y3	Depression	DOT	2*	2*	ALL	4 & COT	4 & COT	2 & COT	3 & COT	6 & COT BB	—	Yes	+COT if not Open Ground
20. Stream	13N6	Depression	DOT	*2/3/4 ◆	*2/3/4	ALL BB	4 & COT X ◆	4 & COT BB	2 & COT BB	3 & COT BB	6 & COT BB	—	Mine/Wire only	Dry/Shallow/Deep
21. Water Obstacle	7E2	Level -1	FFMO: -1*	ALL*@	ALL*	ALL*	NA	NA	NA	NA	NA	—	No	Only if Fordable (B20.8)
22. Valley	24P8	Level -1	DOT	DOT	DOT	DOT	DOT	DOT	DOT	DOT	DOT	—	Yes	Note h and H when moving higher
23. Wooden Building	1C7	1-3 1/2 Levels	+2(+1*)	2	NA	NA	NA P	NA	Z B	NA	NA	7/8	Mines only	IF adds +1/level above target
23. Stone Building	1J2	1-3 1/2 Levels	+3(+1*)	2	NA	NA	NA P	NA	Z B	NA	NA	8/9	Mines only	Move assumes no road or VBM
24. Rubble	Counter	■ Half Level	+2 or +3*	3	NA	NA	NA P	NA	Z B	NA	NA	*	No	Same as Wood or Stone Building
25. Fire (Blaze)	Counter	■ Smoke	DOT*	NA	NA	NA	NA	NA	NA	NA	NA	—	—	+3 for Smoke; +2 if Burning Wreck
26. Wire	Counter	—	DOT	COT	NA	NA	NA	4 & COT B	2 & COT B	4 & COT B	4 & COT B	—	—	Exit only in MPh/RtPh
27. Entrenchment [Trench]	Counter	—	+2/+4 ©	COT*	1 & COT	1 & COT [NA]	2 & COT [NA]	2 & COT [NA]	COT [B]	COT [NA]	4 & COT [NA]	—	—	1 MF enter/exit beneath
28. Minefield	Recorded	—	DOT*	COT	COT	COT	COT	COT	COT	COT	COT	—	—	TEM NA to mine attack
29. Roadblock	Counter	Half Level	+2/+1	1 & COT	1 & COT	NA	NA	NA	NA	NA	NA	—	—	Connects to adjacent bldg/woods
30. Pillbox	Counter	—	LOS*	COT**	COT	COT	COT	COT	COT	COT	COT	—	—	Based on type & LOS; **costs 1MF extra to enter/exit beneath
32. Railroads (GLRR/ EmRR/ElRR/SuRR)	Overlays	—/Half Level/ Level-One/Depression	FFMO: -1*	→		(See Railroad Movement Chart on the reverse side of this chart)			←			—	No Entrench	If Height-Advantage/Crest-Status are NA
33. Stream-Woods	47F6	Level-One [—]	+1/-1* [FFMO: -1]	4/5/6 [2/3/4]◆	4/5/6 [2/3/4]	M [ALL]	NA P ◆ [7]	M [7]	M B/Z & 3 [3]	M [4]	M [10]	9/7	Mine/Wire only	Vs unit without crest status [if IN stream (and LOS crosses stream hexside)]
33. Stream-Brush	StMM11	Half-Level [—]	0* [FFMO: -1]	4/5/6 [2/3/4]◆	4/5/6 [2/3/4]	M [ALL]	11 ◆ [7]	11 [7]	5 [3]	6 [4]	16 [10]	9/6	Mine/Wire only	Vs unit without crest status [if IN stream (and LOS crosses stream hexside)]
33. Stream-Orchard	StLL14	Level-One* or Hindrance** [—]	0*** [FFMO: -1]	3/4/5 [2/3/4]◆	3/4/5 [2/3/4]	M [ALL]	10 ◆ [7]	10 [7]	4 [3]	5 [4]	14 [10]	11/9	Mine/Wire only	*To higher LOS only in Apr-Oct **Max Hindrance +1 with 2 level advantage ***Vs unit without crest status [if IN stream (and LOS crosses stream hexside)]
34. Tower hex [Tower Location]	PB C9	SSR	DOT [0*]	1+ COT [1 per level]	NA	NA	NA P	NA	Z B	NA	NA	DOT [7/8]	Mines only [No]	If Height Advantage NA
D10. Wreck	Counter	■ Hindrance	+1 ©	COT	COT	DOT +1*	DOT	DOT +1*	DOT +1*	DOT +1*	DOT +1*	—	—	Per Veh./Wreck; +2 if enter via road

Terrain listed in red is Concealment Terrain

Terrain shown underlined confers -1 Rally DRM.

†: Indirect Fire TEM is listed following a "/" only if different from Direct Fire TEM.

*,**: See Notes Column

■: Whole hex affects LOS; not the terrain depiction (Inherent Terrain; B.6)

@: May not enter during APh

◆: Deep Stream: Infantry must become CX; Motorcycles may not enter

©: Not cumulative with terrain in same hex *[EXC: LOS Hindrance DRM]*

B: Requires Bog DR to enter/change VCA within

BB: Requires Bog DR to exit via non-depression hexside

C: Cavalry may not charge

COT: Cost of Terrain

D: All MP penalties for entering a hex containing a wreck/vehicle or changing VCA are doubled

DOT: Dependent on Other Terrain in hex

f: +2 DRM for Entrenching Attempt on Desert Board (F.1) unless Sand is present; F.1B.

FFMO: -1 DRM vs Moving Infantry in Open Ground

h: MF cost of each full level higher elevation entered is doubled *[EXC: changing levels within a building costs 1 MF]*

H: Add 4 MP for each full level higher elevation entered *[EXC: Via road add 2 MP]*

M: Minimum Move required

NA: Not Allowed

P: May be Pushed

Pv: If Paved

R: or per road cost if through Road/Runway, or track cost if through track, hexside

W: Entry as per wall/hedge

X: Requires Wreck Check dr

Y: Crossable only via Minimum Move, Low Crawl, or Advance vs Difficult Terrain

Z: Half of MP allotment

ORIGINAL/FINAL COLORED dr IN DR SUMMARY

≤ 0:	Bog DR of entering AFV rubbles building (B23.41)
1:	Rear Target Facing vs same-hex target (D3.2); Turret Hit (white dr ≥ 2); Maintains ROF (ROF 1-3) (A9.2, C2.24); P. MOL Target Flame (A22.6111); Removes Wire on fully-trackedBog DR (B26.53); CC P. Gun/SW elimination (A11.13)
2:	Rear Target Facing vs same-hex target (D3.2); Turret Hit (white dr ≥ 3); Maintains ROF (ROF 2-3) (A9.2, C2.24)
3:	Side Target Facing vs same-hex target (D3.2); Turret Hit (white dr ≥ 4); Maintains ROF (ROF 3) (A9.2, C2.24)
4:	Side Target Facing vs same-hex target (D3.2); Turret Hit (white dr ≥ 5)
5:	Front Target Facing vs same-hex target (D3.2); Turret Hit (white dr 6) Gun's "?" is lost if Good Order enemy ground unit in LOS and within 16 hexes (A12.34)
6:	Front Target Facing vs same-hex target (D3.2); MOL attacker is broken & Flame placed (A22.6111); AFV entering Building obstacle falls into cellar (B23.41); Unit taking NMC due to WP suffers CH (A24.31); Gun's "?" is lost if Good Order enemy ground unit in LOS (A12.34)
1-6:	1 FP attack on IFT for Backblast Weapon use in Restricted Area Option (C12.31 & C13.81)
≥ 7:	Causes Falling Rubble (B24.12)

KINDLING NUMBERS

SMC NTC required

7:	Wooden Building*/Rubble
8:	Stone Building*/Rubble
9:	Brush, Woods, Vineyards
10:	Grain
11:	Orchards, Olive Groves
12:	Cactus Patch

Fortified Bldg: -1 DRM
Leadership: -x DRM
* EC DRM NA

ORIGINAL 12 DR SUMMARY:

- AFV with red MP immobilized on Mechanical Reliability DR (D2.51)
- ATMM CC Dud (C13.74)
- Burning building collapse during Spreading Fire (B25.66)
- CC Defender may withdraw (A11.22)
- CC Attacker vs manned vehicle suffers Casualty Reduction (A11.621)
- Climbers fall (B11.41)
- DC/SCW/To Kill DR is Dud (A23.4, C7.35)
- Elim/Im Flail vs A-T/A-P Mines (B28.71)
- Gusting Winds (B25.651)
- Level A/C Booby Trap Attack (TC DR) causes Casualty Reduction (B28.9)
- Minefield Clearance DR causes Casualty Reduction (B24.74)
- MMC Replaced in Ammunition Shortage (A19.131)
- Multiple Casualties on MC (A10.31)
- OVR Malfunction or Immobilization (D7.17)
- PF To Hit DR causes Casualty Reduction to firer (C13.36)
- Rally suffers Casualty Reduction (A10.64)

ORIGINAL 2 DR SUMMARY (P.=Possible)

- CC Attacker may withdraw (A11.22)
- CH by FFE/Area Target Type (C3.7); P. CH by Vehicle/Infantry Target Types
- Field Phone Loss (C1.23)
- P. Improbable Hit (C3.6)
- P. Leader Creation in CC (A18.12) or first Self-Rally (A18.11)
- MC or Rally DR (not Self-Rally) yields Heat of Battle (A15.1)
- Rearms Scrounger (A20.552)
- P. Unlikely Kill IFT (A7.309), CCT (A11.501)
- Wind Change (B25.65)

B25.11 KINDLING ATTEMPT

Final Kindling DR ≥ K# = Flame
Treat as Prep Fire Attempt

DRM: EC DRM; HS/Crew: -1; SMC: -2; MOL: +2

ORIGINAL DOUBLES DR SUMMARY

- IFT Attack Cowers (A7.9)
- Gun ≤ 40mm Multiple Hit (C3.8)
- Bombardment MC causes Casualty Reduction (C1.82)

ORIGINAL 11 DR SUMMARY

- Russian AFV with red MP stalls (Russian Armor Note M)
- Removes Flail mechanism vs mine (B28.72)
- Level A/B Booby Traps TC cause Casualty Reduction (B28.9)
- Inexperienced Mine Clearance DR causes Casualty Reduction (B24.74)
- RCL TH DR causes P. Flame (C12.4)
- PF TH DR causes Casualty Reduction to Inexperienced firer (C13.36)

B32 RAILROAD MOVEMENT COSTS CHART

Terrain	MF ENTRANCE COST: Infantry	Cavalry	Horse-Drawn	MP ENTRANCE COST: Motorcycle	Armored Car	Fully Tracked	Halftrack	Truck
32. **RR** p								
GLRR	1 [DOT]	1 [1 + COT]	2 [1 + COT]	2 [1 + COT]	3 [2 + COT]	2 [1 + COT]	2 [1 + COT]	5 [5 + COT]
EmRR D	1 [DOT]	1 [1 + COT]	2 [1 + COT]	2 L [2 + COT]	3 L [3 + COT]	2 L [2 + COT]	2 L [2 + COT]	5 L [6 + COT]
ElRR D O	1 [h]	1 [h1]	2 [h1]	2 L [NA]	3 L [NA]	2 L [5 + COT B]	2 L [5 + COT B1]	5 L [NA]
SuRR D S	1 [1 + COT]	1 [2 + COT]	2 [NA]	2 [NA]	3 [NA]	2 [NA]	2 [NA]	5 [NA]

Crossing RR hexside and using RR (Infantry/Cavalry crossing GLRR hexside and not using RR pay COT)
[Crossing non-RR hexside and not using RR Crossing]

B: Requires Bog Check to enter
B1: Requires Bog Check with +1 DRM to enter
COT: Cost of Terrain
D: All MP penalties for entering a hex containing a vehicle/wreck or for changing VCA are doubled *[EXC: Motorcycles]*
DOT: Dependent on Other Terrain
h: MF cost of each full higher elevation entered is doubled (i.e., 2 x COT)
h1: 2 x [1 + COT]
L: +1MP if entering a half-level higher elevation
O: One-Lane Bridge rules (6.4-.431) apply *[EXC: VCA not restricted]* when crossing RR hexside
p: Paved Road rules apply unless noted otherwise
S: Sunken Lane rules apply (4.43)

A24 SMOKE SUMMARY

Type		Effect on Counter: Mild Breeze	Heavy Wind
Smoke +3 level 2	May be fired by ordnance/OBA only at start of PFPh (A24.5).[1]	A	B
Dispersed +2 level 2	May be fired by ordnance/OBA only at start of DFPh (A24.5), or is created at start of firer's next PFPh by flipping over from its +3 side (A24.4)[2]	C	B
Dispersed +2 level 2	Created downwind of White Smoke or Wreck/Terrain Blaze in next AFPh by Mild Breeze as per notes A or C (A24.61).[3]	—	D
level 4 NMC WP +2	May be fired by U.S./British/Japanese/ Chinese ordnance/OBA only at start of PFPh (A24.3). [1 5]	E	B
level 4 NMC WP +2	May be fired by U.S./British ordnance/OBA at start of any friendly Fire Phase (A24.3), or is created at start of firer's next PFPh by flipping over from its +2 side (A24.4). [2 5]	F	B
level 4 NMC WP +2	Created downwind of White WP counter in AFPh by Mild Breeze as per notes E or F (A24.61).[3]	—	D
Smoke +2 level 2 / NMC WP +1	May be placed by infantry rolling ≤ their Smoke Placement Exponent during own MPh at cost of one MF for same Location placement or two MF for ADJACENT Location placement. Placement to a higher level (one maximum) is allowed only across a single Crest Line or via stairwell on a separate dr of ≤ 3 [≥ 4 = Mandatory same-Location placement] (A24.1).[4] WP[5]	G	H
BLAZE	Inherently present above any Burning Wreck/ Terrain Blaze. No SMOKE counter is needed. Creates Hindrance up to four levels (inclusive) above Blaze's Location. Hindrance is +3 DRM for Terrain Blaze; +2 DRM for Burning Wreck (B25.2).	I,K	J

NOTES:
[1]: Flip over White Dispersed side at start of placing player's next PFPh (A24.4).
[2]: Remove at start of placing player's next PFPh (A24.4).
[3]: Remove if wind changes, or if its White SMOKE counter is removed (A24.61). If White SMOKE counter is flipped over, reduce number of Gray counters drifting from it appropriately.
[4]: Remove at end of MPh (A24.11)
[5]: NMC occurs vs occupants of Location where placed; not where it drifts. CH results if MC DR colored dr is "6" (A24.31).
A: Creates three dispersed Gray smoke counters in three downwind hexes at start of next AFPh (A24.61)
B: Cannot be placed; remove if onboard (A24.6)
C: Creates two Dispersed Gray smoke counters in two downwind hexes at start of next AFPh (A24.61)
D: Remove if onboard (A24.6)
E: Creates two Dispersed Gray WP counters in two downwind hexes at start of next AFPh (A24.61)
F: Creates a Dispersed Gray WP counter in a downwind hex at start of next AFPh (A24.61)
G: Cannot be placed in three adjacent upwind hexes (A24.1)
H: Cannot be placed *[EXC: from and into the same building; A24.6]*.
I: Creates two or three Dispersed Gray smoke counters as applicable in downwind hexes at start of next AFPh (B25.2).
J: No such smoke can exist (B25.63)
K: Becomes two level Hindrance (A24.4)

B24.11 RUBBLE CREATION BY HE ATTACK Δ

Any HE attack ≥ 70mm causing Original KIA allows Rubble dr
Rubble dr: dr ≤ Original KIA # causes Rubble
drm: +1 for stone building
Lower levels will collapse on Final second dr ≥ 6
drm: +1 per non-rooftop level above rubble
Upper levels Falling Rubble (B24.12): Final colored dr ≥ 7 = Spread
white dr = Direction
colored drm: +1 per non-rooftop level above ground level

B24.7 CLEARANCE ATTEMPTS & DRM

Rubble, Flame, Wire, Mines, Set DC, Roadblock Final DR ≤ 2

DRM	Condition
-1	Clearance attempt by Squad
-1	Per extra HS/Crew (-2 per extra squad) or *Hero
+y	the leadership DRM of one leader (unless alone)
-2	*Per Sapper Squad (-1 per Sapper HS)
-5	@Per bulldozer
+x	Labor Status DRM
+z	†EC DRM (B25.5)

* vs Mine/Set DC/Wire Only; @ vs Rubble/Flame/Roadblock; † Applicable only to Flame

B25.5 ENVIROMENTAL CONDITIONS (EC) Δ

dr	EC	EC DRM/drm
≤ 0	Snow	-3
1	Mud	-3
2	Wet	-2
3	Moist	-1
4	Moderate	0
5	Dry	+1
≥ 6	Very Dry	+2

B25.63 WIND FORCE Δ

dr 1-3: No Wind
dr 4-5: Mild Breeze
dr 6: Heavy Winds
Mild: As Per Wind Direction Diagram
Heavy: Automatic Flame Spread to 3 adjacent hexes
Gusts: (DR 12): Flame spreads to adjacent hex; one Blaze spreads Flame two hexes (B25.651)

B25.65 WIND CHANGE

DR 2: Change DR 12: Gusts

dr	Result Δ
1	Direction 1 CW
2	Direction 2 CW
3	Direction 1 CCW
4	Direction 2 CCW
5	Force Increases 1
6	Force Decreases 1

NOTE: Direction Change NA unless Mild Breeze or Heavy Winds already exist. Wind Force change below No Wind or above Heavy Winds results in Mild Breeze.

B25.6 SPREADING FIRE DRM Δ

+1	to higher elevation
-1	to lower elevation
-2	not directly attached
-1	*to Fortified Building
+X	*EC DRM
+Y	Wind Direction if Mild

* Applicable to Flame/Blaze Spread DR (B25.151)

B25.6 SPREADING FIRE Every AFPh Δ

Spread DR	Terrain
≥ 10	Cactus Patch
≥ 9	Stone Building/Rubble, Orchard, Olive Groves
≥ 8	Wooden Building/Rubble, Woods Road
≥ 7	Woods
≥ 6	Grain, Brush, Vineyards

Each hex checks only once but with highest applicable DRM

B25.13 HE FIRES Δ

After non-Rubble Original KIA, make Kindling DR & add EC DRM; ≥ K# = Flame

A5.132 vs OVERSTACKED VEHICLES:

Final TH DR > Modified TH# by < # of vehicles* hits other vehicle on dr < # of vehicles* in hex

* Excluding the firing vehicle if in same hex

C2.5 CONDITIONAL ROF: Δ

Non-Vehicular NT Gun *[EXC: 76-82mm Mortar]* reduces ROF (for next shot in same phase) by 1 for CA change

C2.6 GUN ELEVATION/DEPRESSION: Δ

Range ≥ Elevation Difference unless AA capable or MTR

C3.6 IMPROBABLE HITS: Δ

Original TH DR 2: subsequent dr: 1: CH; 2: Turret; 3: Hull; 4-6: Miss

C3.7 CRITICAL HITS:

AREA/VEHICLE Target Type:
Original TH DR of 2. NA for Deliberate Immobilization or MG TK

INFANTRY Target Type:
Final TH DR < half of Modified TH#, or 2 TH DR & subsequent dr of 1 or ≤ half of Modified TH#.

FFE: Original 2 IFT DR

C3.8 MULTIPLE HITS: Δ

Gun must be ≤ 40mm or U.S. and British Multi-Applicable Vehicle Note R, Chinese Vehicle Note 7; Any non-Critical Hit TH DR of Doubles yields choice of two resolution DR.

C3.9 LOCATION OF VEHICULAR HIT:

Turret Hit: TH DR colored dr < white dr Δ
Hull Hit: TH DR colored dr ≥ white dr

LOWERED ROF:

- IFE (C2.29)
- Captured/non-Qualified Use (A21.12)
- Conditional ROF (C2.5)
- Spotted Mortar Fire (C9.31)
- Using H#[9] (German Ordnance Note B)

LOST ROF:

- Placement of Residual FP (A8.23)
- Non-Mortar using Area Target (C3.33)
- Non-Opportunity Fire in AFPh (C5.2, A9.2)
- Pinned (C5.4)
- Subsequent First Fire (A8.3)
- 0 ROF gun using Conditional ROF (C2.5)*

*Place Intensive Fire counter

C7.346 DC PLACEMENT vs AFV DR Δ

Placement DR	Result
≤ 5	Use Aerial AF
6-8	Use AF
9-11	Specific Collateral Attack only*
≥ 12	Area Fire Attack vs non-armored units only

*Requires new Effects DR

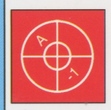
DRM:

+2	Motion/Non-Stopped AFV or concealed Target
+2	Thrown DC (or +3 if Thrown from Non-Stopped/Motion Conveyance)
+1	CX
+1	Placed/Thrown through hull front Target Facing
+1	AFV target is CE
+1	Thrown in AFPh (not as Opportunity Fire)
-1	Placed/Thrown through hull rear Target Facing
-2	Immobile or OT AFV target (each)
-2	Vehicle target is in Bypass in same hex
-1/-2	Elevation Advantage Case B (C7.22) as applicable

C6.5 ACQUISITION LOSS

A Gun's Acquired Target counter is removed if:

- the Gun leaves its present hex and/or uses Bounding First Fire vs its already-acquired target *[EXC: Gyrostabilizer; C6.55]*; or
- the Gun changes its CA without firing on its already-acquired target during the current phase; or
- the Gun (or its CMG unless in a separate turret) fires at a different target; or
- the Gun malfunctions, or fires SMOKE or Canister, or uses IFE; or
- the Gun's manning Infantry becomes broken, stunned, or shocked, or fires inherent FP/SW; or
- the target is no longer in the Gun's LOS (See also C6.15)





In addition, a Gun's Area (only) Target Acquired counter is removed if:

- the Gun is Stabilized and declares Bounding First Fire vs its already-acquired hex without having lost LOS to it. The removed Area Target Acquired counter is replaced by a ½" Acquired Target counter before the attack is made (C6.55)
- Note that an Area Target Acquired counter cannot "follow" a unit that is entering a new hex. That unit would have to be reacquired (C6.521).

C3 TO HIT TABLE

TARGET TYPE/RANGE	0-6	7-12	13-18	19-24	25-30	31-36	37-42	43-48	49-54	> 54
Vehicle •	10 10	9 8	8 7	7 6	6 5	6 4	5 3	4 2	3 1	2 0
Infantry (Other)	8 8	7 6	6 5	5 4	4 3	3 2	2 1	1 0	0 -1	-1 -2
Area (Mortar, SMOKE)	7	7	8	8	7	7	6	6	5	5
C4 GUN & AMMO BASIC TO HIT NUMBER MODIFICATIONS:										
* Weapon	0	0	-1	-1	-1	-1	-1	-1	-1	-1
L Weapon	0	0	+1	+1	+1	+1	+1	+1	+1	+1
LL Weapon	0	0	+1	+1	+2	+2	+2	+2	+2	+2
APDS/APCR	0	0	-1	-1	-2	-2	-3	-3	-4	-4
SMOKE	+2	+2	0	0	0	0	0	0	0	0
≤ 57mm	0	0	-1	-1	-2	-2	-3	-3	-4	-4
≤ 40mm	0	0	-1	-1	-1	-1	-1	-1	-1	-1

C5 FIRER-BASED HIT DETERMINATION DRM:

S	**A.**	Firer outside CA per hexspine changed	[T: +1/+1/+1] [ST: +2/+1/+1] [NT: +3/+1/+1] NA to Bounding First Fire (×2 if firer is in woods/building/rubble)
	B.	Fire in AFPh without entering a hex in that Player Turn (C5.2) (+3 if in woods/building/rubble)	+2
L	**C.**	Bounding Firer (C5.3)	Case B plus [Stabilized Gun: +1] [T/ST: +2] [NT: +3]
†L	**C¹**	Bounding First Firer, Restricted Aim (2.5-3 MP in LOS of target)	Case C +1
†L	**C²**	Bounding First Firer, Limited Aim (≤ 2 MP in LOS of target)	Case C +2
†L	**C³**	Firing LATW in AFPh/Backblast weapon from rubble/ground level building (each)	+2
†L	**C⁴**	Motion/Non-Stopped Firer	[Stabilized Gun: C/C¹/C² +1] [Other: C/C¹/C² & lower dr ×2]
L	**D.**	Pinned Firer/Spotter (Multiple ROF/Case F are NA) (C5.4)	+2
†S	**E.**	Fire within hex (×2 if in woods/building/rubble; Cases J³, J⁴, L, & M are NA)	+2
S	**F.**	Intensive Fire (B# -2; Case B, D, AFPh, stunned, pinned firer are NA) (C5.6)	+2
†L	**G.**	Deliberate Immobilization (Range: ≤ 6 hexes; Case N is NA) (C5.7)	+5HH
L	**H.**	Captured/Non-qualified Infantry (B# -2; red TH#) (C5.8)	(+4 if both apply) +2
	I.	Buttoned Up AFV (MA/SA only; RST/1MT must be BU to fire MA) (C5.9)	+1

Other:

- L Overstacked: +1 per vehicle/squad overstack (A5.12)
- L Encircled: +1 (A7.7)
- L CX: +1 (A4.51)
- Spotted Fire: +2 (C9.31)
- Bypass TCA Change to/through side Target Facing: +1 (D2.321)
- Bypass TCA equals side Target Facing: +TH Case A, unless Case N applies (D2.321)
- Stun +1 (D5.34) [per each Stun result (G12.111, G14.33, KGP SSR12)]
- L Firer in Ocean during Heavy Surf if the attack is resolved on the IFT (G13.445): +1
- L Leadership: +x (A7.531)

C6 TARGET-BASED HIT DETERMINATION DRM: Δ

@L	**J.**	Moving/Motion (C.8) Vehicle or Dashing Infantry (C6.1)	+2
L	**J¹**	Defensive First Fire vs Moving (C.8) Vehicle (≤ 3 MP in Firer's LOS)	Case J +1
L	**J²**	Defensive First Fire vs Moving (C.8) Vehicle (≤ 1 MP in Firer's LOS) [J¹ NA]	Case J +2
@L	**J³**	FFNAM (Case J is NA) (C6.13)	-1
@L	**J⁴**	FFMO (Case J is NA) (C6.14)	-1
@L	**K.**	vs Concealed Target (or Area Fire; C.4) (C6.2)	+2
†	**L.**	Point Blank Range (Non-Stopped/Motion target/firer NA) (C6.3)	[2 Hex Range: -1] -2
	M.	Bore Sighted Location (Case N, E is NA) (C6.4)	-2
G	**N.**	Acquired Target (NA to Case G) (C6.5)	as per Acquisition Counter
@L	**O.**	Target using Hazardous Movement (all Case J are NA) (C6.6)	-2
@L	**P.**	Target Size Modifier (-2 to +2) (C6.7)	per Vehicle/Gun Target Counter
†@L	**Q.**	TEM (C6.8)	Per TEM
@L	**R.**	LOS/LV Hindrance (C6.9; E3.1)	Per LOS/LV Hindrance

Other:

- @L vs Overstacked Personnel: -1 per overstacked squad (A5.131)
- @L vs Motorcyclist -1 (D15.5)
- @L vs Cavalry -2 (A13.5)
- @ Aerial attack vs Upper-Cliff-cave/its contents: height above Base/Crest Level (G11.86)
- @L vs Wading Vehicle (G13.422): +2
- L Target in Ocean during Heavy Surf if the attack is resolved on the IFT (G13.445): +1

† NA when using Area Target Type @ Applicable to Aerial Attack L Applicable to LATW even if using own To Hit Table
• ATR/MG counters use Black TH# unless captured HH Hull Hit Required G NA to non-mortar SW S NA to SW

C7.31 AP TO KILL TABLE Δ

ARMORED TARGET

								37LL		50L					75L				90L							
		42F			37	37L	40L	45LL		75					76L				105L							
		12.7	44F	20LL	47*	57	45L	47L	75*	76L					85L				150			88LL				
	39F	15	ATR	25LL	57*	65*	47	50	76	88	75	105	57L		150*	77L	90L	152	152	75LL		100L	150L		128L	
GUN SIZE:	@MG	ATR	20L	37*	70*	76*	75*	88*	84*	120*	105	57LL	76LL	16	152*	200L	88L	155	76LL	122L	25	120L	155L	140L	170L	
BASIC TK#	4	5	6	7	8	9	10	11	12	13	14	15	16	17	19	20	21	23	25	27	28	32	33			

NOTES: @:Must be within Normal Range and not halved FP Russian, Finnish, Japanese; Allied & Axis Minor/Italian (20L only) Russian/Japanese Italian Grant Gun British 88 (25 pdr) Australian 88* (Baby 25pdr) 12.7: .50 Cal MG F: Fighter MG armament by year Japanese 75* Year-38 Type

MODIFICATION/RANGE	0-1	2	3-6	7-12	13-18	19-24	25-30	31-36	37-42	43-48	49-54	55-60	61-66	67-72	73-78	79+
Case D TK# CHANGE																
≤ 25mm:	+2	+1	+1	0	0	-1	-2	-3	-4	-5	NA	NA	NA	NA	NA	NA
37-57mm:	+1	+1	0	0	0	-1	-2	-2	-3	-4	-4	-5	NA	NA	NA	NA
≥ 65mm:	+1	0	0	0	0	-1	-1	-2	-2	-3	-3	-4	-4	-5	-5	NA

UNARMORED TARGET: FINAL TK# (Double if Critical Hit): IFE/MG-15mm: ★ Vehicle line on IFT ATR-28mm: 7 37-57mm: 8 65-77mm: 9 85-95mm: 10 100+mm: 11

C7.32 APCR/APDS TO KILL TABLE Δ

ARMORED TARGET		28LL	45LL	40LL 50		57LL D57L		75L				
GUN SIZE:	37L	45L	47L	76L	50L	76LL	85L	76L	76L	88L	D76LL	90L
BASIC TK#:	10	12	13	14	17	18	19	20	22	23	25	27

UNARMORED TARGET: Use AP To Kill Table Russian U.S.

MODIFICATION/RANGE:	0-1	2	3-6	7-12	13-18	19-24	25-30	31-36	37-42	43-48	49+
Case D TK# CHANGE:											
APCR ≤ 57mm:	+3	+2	+1	0	-2	-4	-6	NA	NA	NA	NA
APCR ≥ 75mm:	+3	+2	+1	0	-1	-3	-4	-5	-6	-7	NA
APDS (D):	+1	0	0	0	0	0	-1	-2	-3	-4	NA

C7.33 HEAT TO KILL TABLE Δ

	57	BAZ43						(Sept43) PSK	
ARMORED TARGET:	65	75		PIAT	BAZ44+		(Aug43)	37	(Oct43)
GUN SIZE:	94	70	76	100	105	95	122	150	PFk	47	PF
BASIC TK#:	11	12	13	14	15	16	17	21	22	26	31

UNARMORED TARGET: 11 Final TK# (22 Final TK# if Critical Hit)

Case D: NA PF RANGE: Aug 43+: 1; June 44+: 2; 45+: 3 PFk Range: 1

C7.34 HE AND FLAME TO KILL TABLE (no mortars) [AF NA] Δ

GUN SIZE:	20+	30+	40+	50+	70+	80+	100+	120+	150+	DC	FT	MOL	MOL-P
ARMORED TARGET: BASIC TK#:	3	4	5	6	7	8	10	12	16	16	8[2]	6[3]	6[4]
UNARMORED TARGET: FINAL TK#:[1]	6	8	9	10	12	14	16	18	20	[★ Vehicle: IFT]			9

Case D NA *[EXC: FT]* [1]: Double if Critical Hit *[EXC: DC, FT, MOL]*

[2,3,4]: Only TK# Modifiers are +1 if Rear Target Facing and: [2]: Half if Long Range; +1 if CE & +2 if OT [3]: +1 if CE CT or +2 if OT; -2 vs Moving Target; +1/+2 Elevation adv. (C7.22) [4]: +1 if OT; double if CH

OBTAINING MODIFIED TK#: Δ
C7.2 BASIC TK# MODIFICATIONS:

A. Rear Target Facing: +1 to BASIC TK#
B. Aerial/DC/MOL Elevation Advantage: BASIC TK# +1; +2 if OT
C. Critical Hit: BASIC TK# × 2
D. Range: AP, APCR/APDS, and FT only

OBTAINING FINAL TK#: Δ
C7.11 ARMOR FACTOR (AF)

AF	0*	1	2	3	4	6	8	11	14	18	26
AERIAL AF	0	0	1	2	3	3	4	4			

*Not AFV vs Mines if any hull AF = 0

Subtract from MODIFIED TK# to get FINAL TK#

AERIAL AF: Aircraft or Underbelly Hit; A-T Mine DRM (B28.52)

C10.3 GUN MANHANDLING NUMBER MODIFICATIONS Δ

Pushed by Good Order (as per C10.111) Crew at double its normal MF cost, provided it makes a Final DR ≤ its M#/M # for each hex it attempts to enter.

+x	*x is TEM of hexside crossed plus that of hex entered
+y	y is pushing unit's MF expenditure for hex entered
+3	Pushing into/from mud or deep snow
-1	Per extra pushing Crew/HS (-2 per Squad); Maximum DRM: -4
-2	Crossing a road hexside except in mud/deep snow
-2	Low Ammo counter placed on Gun prior to DR
-1/-2	Per Labor Status (B24.8)

Manhandling DR > M#: Move Fails

Manhandling DR = M#: Move Succeeds; no further movement allowed

Manhandling DR < M#: Move Succeeds; may continue movement

* LOS Hindrance, Height Advantage, FFMO/FFNAM are NA



D3.2 TARGET FACING

When Fire Originates in Same Hex (Case E; C5.5)

Rear Target Facing	TH DR **colored dr** = 1-2
Side Target Facing	TH DR **colored dr** = 3-4
Front Target Facing	TH DR **colored dr** = 5-6

C1.55 INDIRECT FIRE vs AFV IFT DRM Δ



DRM	Cause
-1	All AF ≤ 4
-1	OT AFV
+1	All AF ≥ 8



C7.35 DUD: Any Original 12 TK DR=No Effect

C2.21 GUN SIZE: Overscore: AP NA Underscore: HE NA

D4.3 UNDERBELLY HIT:
Turret Hit=Hull Bottom Hit; Use Aerial AF

C11.6 GUN DESTRUCTION TABLE[1] Δ

	Ordnance Bomb/OBA	MG/IFE/Small Arms/ FT[2]/MOL[2]/OVR[2]	DC
≤ Final[4] KIA	Elim[3]	Random SW/Gun Dest	Elim
= Final[4] K	Malf-CR[5]	NA	Malf-CR
= CH	Elim	NA	NA

Elim: Gun and manning Infantry are eliminated.
Malf-CR: Gun is malfunctioned; manning Infantry suffers Casualty Reduction.
Random SW/Gun Dest: Check for Random SW/Gun Destruction (A9.74)

[1] If in tow or being (un)hooked, a Gun can only be destroyed if its vehicle is Eliminated (C10.1-.12).
[2] Gunshield is NA to FT/MOL-"only" attack (C11.51).
[3] If there are Personnel in the Location, unpossessed Guns check for Random SW/Gun Destruction if KIA achieved via Indirect Fire.
[4] Prior to applying Gunshield DRM (C11.4).
[5] K result = Elim if AP was fired (C11.52).

C8.31 HE EQUIVALENCY

AP[1]		HEAT			
< 37mm²	≥ 37mm	BAZ/PIAT	PSK/PFk[4]/ H#[9][3,4]	PF[4]	Other Ordnance
1	2	8	12	16	Use IFT column to the left of Gun's normal HE FP

[1]: No AP-type attack can leave Residual FP. ATR can use AP HE Equivalency only if it is 20mm.
[2]: Includes all APCR/APDS/ATR, but not MG (including 12.7 and 15mm).
[3]: As used by German 37mm AT and AA Guns.
[4]: PF/PFk/H#[9] cannot leave Residual FP.

UNARMORED VEHICLE DESTRUCTION TABLE:

Final Effects DR	Bomb/Ordnance Direct Fire	FT/ MOL	A-P Mine/Non-Ordnance/ Indirect Fire/DC	A-T Mine[1]	CC
≤ Half TK#/ ★ Vehicle IFT #/1KIA/CCV:	Burn	Burn	Burn	Burn	Burn
< TK#/ ★ Vehicle IFT #/1KIA/CCV:	Elim	Burn	Elim	Burn	Elim
= TK#/ ★ Vehicle IFT #/1KIA/CCV:	Im	Elim	Im	Burn	Im

[1]: > KIA = Elim (B28.52)

C7.7 AFV DESTRUCTION TABLE

Final Effects DR	Bomb/ Direct Fire[C]	DC[D]	FT/MOL	MG[F]	Indirect Fire[E]	A-P Mines[G]	A-T Mines[G]	CC
[A]≤ Half TK#/K/1KIA/CCV	Burn	Burn	Burn	Burn	Burn	Im	Burn	Burn
[A]< TK#/K/1KIA/CCV	Elim	Elim	Burn	Elim	Elim	Im	Elim	Elim
= TK#/K/1KIA/CCV	Im[H]/Sh[T]	Im[H]/Sh[T]	Elim[A]	Stun	Im[H]/Sh[T]	Im	Elim	Im
HE 1 > Final TK#/K	Im[H]/Sh[T]	Im[H]/Sh[T]	NA	NA	Im[H]/Sh[T]	NA	NA	NA
Non-HE[B] 1 > Final TK#	P. Sh	NA	NA	NA	NA	NA	NA	NA

[A]: -1 DRM to Final To Kill DR for Burning Wreck determination (only) if AFV has Red CS# [B]: Includes HEAT [C]: Includes Aerial Fire
[D]: Requires Position DR (C7.346) [E]: Use Original IFT DR for Hit Location (C1.55) [F]: Includes 12.7mm and 15mm and Aerial Fire
[G]: If AFV's lowest hull AF is 0, treat it as an unarmored vehicle K is the DR required for a K result on the IFT
1KIA is the DR required for a 1KIA result on the IFT [H/H]: Hull Hit [T/T]: Turret Hit

C7.31 AP TO KILL TABLE Δ

ARMORED TARGET

GUN SIZE:	@MG	ATR	20L	37*	70*	76*	75*	88*	84*	120*	105	57LL	76LL	152*	200L	88L	155	76LL	122L	120L	155L	140L	170L
	39F	42F 12.7 15	44F ATR	20LL 25LL	37 47* 57*	37L 57 65*	40L 45L 47	37LL 45LL 47L 50	75* 76	50L 75 76L 88	75	57L		75L 76L 85L 150*	77L	90L	90L 105L 150 152	75LL		88LL 100L	150L		128L
BASIC TK#	4	5	6	7	8	9	10	11	12	13	14	15	16	17	19	20	21	23	25	27	28	32	33

NOTES: @: Must be within Normal Range and not halved FP Russian, Finnish, Japanese; Allied & Axis Minor/Italian (20L only) Russian/Japanese
Italian Grant Gun British 88 (25 pdr) Australian 88* (Baby 25pdr) 12.7: .50 Cal MG FB MG by year Japanese 75* Year-38 Type

MODIFICATION/RANGE Case D TK# CHANGE	0-1	2	3-6	7-12	13-18	19-24	25-30	31-36	37-42	43-48	49-54	55-60	61-66	67-72	73-78	79+
≤ 25mm:	+2	+1	+1	0	0	-1	-2	-3	-4	-5	NA	NA	NA	NA	NA	NA
37-57mm:	+1	+1	0	0	0	-1	-2	-2	-3	-4	-4	-5	NA	NA	NA	NA
≥ 65mm:	+1	0	0	0	0	-1	-1	-2	-2	-3	-3	-4	-4	-5	-5	NA

UNARMORED TARGET: FINAL TK# (Double if Critical Hit): IFE/MG-15mm: ★ Vehicle line on IFT **ATR-28mm:** 7 **37-57mm:** 8 **65-77mm:** 9 **85-95mm:** 10 **100+mm:** 11

C10.3 GUN MANHANDLING NUMBER MODIFICATIONS

+x	*x is TEM of hexside crossed plus that of hex entered
+y	y is pushing unit's MF expenditure for hex entered
+3	Pushing into/from mud or deep snow
-1	Per extra pushing Crew/HS (-2 per Squad); Maximum DRM: -4
-2	Crossing a road hexside except in mud/deep snow
-2	Low Ammo counter placed on Gun prior to DR
-1/-2	Per Labor Status (B24.8)

Manhandling DR > M#: Move Fails
Manhandling DR = M#: Move Succeeds; no further movement allowed
Manhandling DR < M#: Move Succeeds; may continue movement Δ
* LOS Hindrance, HA, FFMO/FFNAM are NA

LOST ROF:

- Placement of Residual FP (A8.23)
- Non-Mortar using Area Target (C3.33)
- Non-Opportunity Fire in AFPh (C5.2, A9.2)
- Pinned (C5.4)
- Subsequent First Fire (A8.3)
- 0 ROF gun using Conditional ROF (C2.5)*

*Place Intensive Fire counter

C7.32 APCR/APDS TO KILL TABLE Δ

ARMORED TARGET:

GUN SIZE:	37L	45L	47L	76L	50L	76LL	85L	76L	76L	88L	D76LL	90L
		28LL	45LL	40LL 50		57LL D57L		75L				
BASIC TK#:	10	12	13	14	17	18	19	20	22	23	25	27

UNARMORED TARGET: Use AP To Kill Table Russian U.S.

MODIFICATION/RANGE Case D TK# CHANGE	0-1	2	3-6	7-12	13-18	19-24	25-30	31-36	37-42	43-48	49+
APCR ≤ 57mm:	+3	+2	+1	0	-2	-4	-6	NA	NA	NA	NA
APCR ≥ 75mm:	+3	+2	+1	0	-1	-3	-4	-5	-6	-7	NA
APDS (D):	+1	0	0	0	0	0	-1	-2	-3	-4	NA

LOWERED ROF:

- IFE (C2.29)
- Captured/non-Qualified Use (A21.12)
- Conditional ROF (C2.5)
- Spotted Mortar Fire (C9.31)
- Using H#[9] (German Ordnance Note B)

C11.6 GUN DESTRUCTION TABLE[1] Δ

	Ordnance Bomb/OBA	MG/IFE/Small Arms/ FT[2]/MOL[2]/OVR[2]	DC
≤ Final[4] KIA	Elim[3]	Random SW/Gun Dest	Elim
= Final[4] K	Malf-CR[5]	NA	Malf-CR
= CH	Elim	NA	NA

Elim: Gun and manning Infantry are eliminated.
Malf-CR: Gun is malfunctioned; manning Infantry suffers Casualty Reduction.
Random SW/Gun Dest: Check for Random SW/Gun Destruction (A9.74)

1 If in tow or being (un)hooked, a Gun can only be destroyed if its vehicle is Eliminated (C10.1-.12).
2 Gunshield is NA to FT/MOL-"only" attack (C11.51).
3 If there are Personnel in the Location, unpossessed Guns check for Random SW/Gun Destruction if KIA achieved via Indirect Fire.
4 Prior to applying Gunshield DRM (C11.4).
5 K result = Elim if AP was fired (C11.52).

C7.33 HEAT TO KILL TABLE Δ

ARMORED TARGET:

GUN SIZE:	94	70	76	100	105	95	122	150	PFk	47	PF
	57 65		BAZ43 75		PIAT	BAZ44+			(Aug43)	(Sept43) PSK 37	(Oct43)
BASIC TK#:	11	12	13	14	15	16	17	21	22	26	31

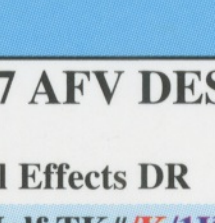
UNARMORED TARGET: 11 Final TK# (22 Final TK# if Critical Hit)
Case D: NA PF RANGE: Aug 43+: 1; June 44+: 2; 45+: 3 PFk Range: 1

C7.34 HE AND FLAME TO KILL TABLE (no mortars) Δ

GUN SIZE:	20+	30+	40+	50+	70+	80+	100+	120+	150+	DC	FT [	MOL AF NA	MOL-P]
ARMORED TARGET: BASIC TK#:	3	4	5	6	7	8	10	12	16	16	8[2]	6[3]	6[4]
UNARMORED TARGET: FINAL TK#:[1]	6	8	9	10	12	14	16	18	20	[★ Vehicle: IFT]			9

Case D NA *[EXC: FT]*
[2,3,4]: Only TK# Modifiers are +1 if Rear Target Facing and:
[1]: Double if Critical Hit *[EXC: DC, FT, MOL]* [2]: Half if Long Range; +1 if CE & +2 if OT.
[3]: +1 if CE CT or +2 if OT; -2 vs Moving Target; +1/+2 Elevation adv. (C7.22)
[4]: +1 if OT; double if CH

C1.55 INDIRECT FIRE vs AFV IFT DRM Δ



DRM	Cause
-1	All AF ≤ 4
-1	OT AFV
+1	All AF ≥ 8

C7.35 DUD: Any Original 12 TK DR=No Effect

C2.21 GUN SIZE: Overscore: AP NA
Underscore: HE NA

D4.3 UNDERBELLY HIT:
Turret Hit=Hull Bottom Hit; Use Aerial AF

OBTAINING MODIFIED TK#:

C7.2 BASIC TK# MODIFICATIONS: Δ

A. Rear Target Facing: +1 to BASIC TK#
B. Aerial/DC/MOL Elevation Advantage: BASIC TK# +1; +2 if OT
C. Critical Hit: BASIC TK# × 2
D. Range: AP, APCR/APDS, and FT only

OBTAINING FINAL TK#: Δ

C7.11 ARMOR FACTOR (AF)

AF	0*	1	2	3	4	6	8	11	14	18	26
AERIAL AF	0	0	1	2	3	3	4	4			

*Not AFV vs Mines if any hull AF=0
Subtract from MODIFIED TK# to get FINAL TK#
AERIAL AF: Aircraft or Underbelly Hit; A-T Mine DRM (B28.52)

C7.7 AFV DESTRUCTION TABLE:

Final Effects DR	Bomb/ Direct Fire[C]	DC[D]	FT/MOL	MG[C]	Indirect Fire[E]	A-P Mines[F]	A-T Mines[F]	CC
[A]≤ Half TK#/K/1KIA/CCV	Burn	Burn	Burn	Burn	Burn	Im	Burn	Burn
[A]< TK#/K/1KIA/CCV	Elim	Elim	Burn	Elim	Elim	Im	Elim	Elim
= TK#/K/1KIA/CCV	Im[H]/Sh[T]	Im[H]/Sh[T]	Elim[A]	Stun	Im[H]/Sh[T]	Im	Elim	Im
HE 1 > Final TK#/K	Im[H]/Sh[T]	Im[H]/Sh[T]	NA	NA	Im[H]/Sh[T]	NA	NA	NA
Non-HE[B] 1 > Final TK#	P. Sh	NA	NA	NA	NA	NA	NA	NA

[A]: -1 DRM to Final To Kill DR for Burning Wreck determination (only) if AFV has Red CS# [B]: Includes HEAT [C]: Includes Aerial Fire [D]: Requires Position DR (C7.346) [E]: Use Original IFT DR for Hit Location (C1.55) [F]: If AFV's lowest hull AF is 0, treat it as an unarmored vehicle **K** is the DR required for a K result on the IFT **1KIA** is the DR required for a 1KIA result on the IFT
[H] = Hull Hit [T] = Turret Hit

UNARMORED VEHICLE DESTRUCTION TABLE

Final Effects DR	Bomb/Ordnance Direct Fire	FT/ MOL	A-P Mine/Non-Ordnance/ Indirect Fire/DC	A-T Mine[1]	CC
≤ Half TK#/★ Vehicle IFT #/1KIA/CCV:	Burn	Burn	Burn	Burn	Burn
< TK#/★ Vehicle IFT #/1KIA/CCV:	Elim	Burn	Elim	Burn	Elim
= TK#/★ Vehicle IFT #/1KIA/CCV:	Im	Elim	Im	Burn	Im

[1]: > KIA=Elim (B28.52)

C3 TO HIT TABLE

TARGET TYPE/RANGE	0-6	7-12	13-18	19-24	25-30	31-36	37-42	43-48	49-54	> 54
Vehicle ●	10 10	9 8	8 7	7 6	6 5	6 4	5 3	4 2	3 1	2 0
Infantry (Other)	8 8	7 6	6 5	5 4	4 3	3 2	2 1	1 0	0 -1	-1 -2
Area (Mortar, SMOKE)	7	7	8	8	7	7	6	6	5	5
C4 GUN & AMMO BASIC TO HIT NUMBER MODIFICATIONS:										
* Weapon	0	0	-1	-1	-1	-1	-1	-1	-1	-1
L Weapon	0	0	+1	+1	+1	+1	+1	+1	+1	+1
LL Weapon	0	0	+1	+1	+2	+2	+2	+2	+2	+2
APDS/APCR	0	0	-1	-1	-2	-2	-3	-3	-4	-4
SMOKE	+2	+2	0	0	0	0	0	0	0	0
≤ 57mm	0	0	-1	-1	-2	-2	-3	-3	-4	-4
≤ 40mm	0	0	-1	-1	-1	-1	-1	-1	-1	-1

C3.7 CRITICAL HITS:

AREA/VEHICLE Target Type:
Original TH DR of 2.
NA for Deliberate Immobilization or MG TK
INFANTRY Target Type:
Final TH DR < half of Modified TH#, or 2 TH DR & subsequent dr of 1 or ≤ half of Modified TH#.
FFE: Original 2 IFT DR

ORIGINAL/FINAL COLORED dr IN DR SUMMARY

≤ 0:	Bog DR of entering AFV rubbles building (B23.41)
1:	Rear Target Facing vs same-hex target (D3.2); Turret Hit (white dr ≥ 2); Maintains ROF (ROF 1-3) (A9.2, C2.24); P. MOL Target Flame (A22.6111); Removes Wire on fully-tracked Bog DR (B26.53); CC P. Gun/SW elimination (A11.13)
2:	Rear Target Facing vs same-hex target (D3.2); Turret Hit (white dr ≥ 3); Maintains ROF (ROF 2-3) (A9.2, C2.24)
3:	Side Target Facing vs same-hex target (D3.2); Turret Hit (white dr ≥ 4); Maintains ROF (ROF 3) (A9.2, C2.24)
4:	Side Target Facing vs same-hex target (D3.2); Turret Hit (white dr ≥ 5)
5:	Front Target Facing vs same-hex target (D3.2); Turret Hit (white dr 6) Gun's "?" is lost if Good Order enemy ground unit in LOS and within 16 hexes (A12.34)
6:	Front Target Facing vs same-hex target (D3.2); MOL attacker is broken & Flame placed (A22.6111); AFV entering Building obstacle falls into cellar (B23.41); Unit taking NMC due to WP suffers CH (A24.31); Gun's "?" is lost if Good Order enemy ground unit in LOS (A12.34)
1-6:	1 FP attack on IFT for Backblast Weapon use in Restricted Area Option (C12.31 & C13.81)
≥ 7:	Causes Falling Rubble (B24.12)

C5 FIRER-BASED HIT DETERMINATION DRM:

S A. Firer outside CA per hexspine changed........................[T: +1/+1/+1] [ST: +2/+1/+1] [NT: +3/+1/+1]
NA to Bounding First Fire (×2 if firer is in woods/building/rubble)
B. Fire in AFPh without entering a hex in that Player Turn (C5.2) (+3 if in woods/building/rubble)..+2
L C. Bounding Firer (C5.3)..................................Case B plus [Stabilized Gun: +1] [T/ST: +2] [NT: +3]
†L C[1] Bounding First Firer, Restricted Aim (2.5—3 MP in LOS of target)..................................Case C +1
†L C[2] Bounding First Firer, Limited Aim (≤ 2 MP in LOS of target)..Case C +2
†L C[3] Firing LATW in AFPh/Backblast weapon from rubble/ground level building (each).......................+2
†L C[4] Motion/Non-Stopped Firer.....................[Stabilized Gun: C/C[1]/C[2] +1][Other: C/C[1]/C[2] & lower dr ×2]
L D. Pinned Firer/Spotter (Multiple ROF/Case F are NA) (C5.4)...+2
†S E. Fire within hex (×2 if in woods/building/rubble; Cases J[3], J[4], L, & M are NA)..............................+2
S F. Intensive Fire (B# -2; Case B, D, AFPh, stunned, pinned firer are NA) (C5.6)...............................+2
†L G. Deliberate Immobilization (Range: ≤ 6 hexes; Case N is NA) (C5.7)..+5[HH]
L H. Captured/Non-qualified Infantry (B# -2; red TH#) (C5.8)..................(+4 if both apply)................+2
I. Buttoned Up AFV (MA/SA only; RST/1MT must be BU to fire MA) (C5.9)..................................+1

Other:
L Overstacked: +1 per vehicle/squad overstack (A5.12)
L Encircled: +1 (A7.7)
L CX: +1 (A4.51)
Spotted Fire: +2 (C9.31)
Bypass TCA Change to/through side Target Facing: +1 (D2.321)
Bypass TCA equals side Target Facing: +TH Case A, unless Case N applies (D2.321)
Stun +1 (D5.34) [per each Stun result (G12.111, G14.33, KGP SSR12)]
L Firer in Ocean during Heavy Surf if the attack is resolved on the IFT (G13.445): +1
L Leadership: +x (A7.531)

A5.132 vs OVERSTACKED VEHICLES:

Final TH DR > Modified TH# by < # of vehicles* hits other vehicle on dr < # of vehicles* in hex
* Excluding the firing vehicle if in same hex

C7.346 DC PLACEMENT vs AFV DR Δ

Placement DR	Result
≤ 5	Use Aerial AF
6-8	Use AF
9-11	Specific Collateral Attack only*
≥ 12	Area Fire Attack vs non-armored units only

*Requires new Effects DR

DRM:

+2	Motion/Non-Stopped AFV or concealed Target
+2	Thrown DC (or +3 if Thrown from Non-Stopped/Motion Conveyance)
+1	CX
+1	Placed/Thrown through hull front Target Facing
-1	Placed/Thrown through hull rear Target Facing
-2	Immobile or OT AFV target (each)
-2	Vehicle target is in Bypass in same hex
+1	AFV target is CE
-1/-2	Elevation Advantage Case B (C7.22) as applicable
+1	Thrown in AFPh (not as Opportunity Fire)

ORIGINAL 2 DR SUMMARY (P.=Possible)

- CC Attacker may withdraw (A11.22)
- CH by FFE/Area Target Type (C3.7); P. CH by Vehicle/Infantry Target Types
- Field Phone Loss (C1.23)
- P. Improbable Hit (C3.6)
- P. Leader Creation in CC (A18.12) or first Self-Rally (A18.11)
- MC or Rally DR (not Self-Rally) yields Heat of Battle (A15.1)
- Rearms Scrounger (A20.552)
- P. Unlikely Kill IFT (A7.309), CCT (A11.501)
- Wind Change (B25.65)

ORIGINAL DOUBLES DR SUMMARY

- IFT Attack Cowers (A7.9)
- Gun ≤ 40mm Multiple Hit (C3.8)
- Bombardment MC causes Casualty Reduction (C1.82)

ORIGINAL 11 DR SUMMARY

- Russian AFV with red MP stalls (Russian Armor Note M)
- Removes Flail mechanism vs mine (B28.72)
- Level A/B Booby Traps TC cause Casualty Reduction (B28.9)
- Inexperienced Mine Clearance DR causes Casualty Reduction (B24.74)
- RCL TH DR causes P. Flame (C12.4)
- PF TH DR causes Casualty Reduction to Inexperienced firer (C13.36)

C6 TARGET-BASED HIT DETERMINATION DRM: Δ

@L J Moving/Motion Vehicle or Dashing Infantry (C6.1)...+2
L J[1] Defensive First Fire vs Moving Vehicle (≤ 3 MP in Firer's LOS) ....Case J +1
L J[2] Defensive First Fire vs Moving Vehicle (≤ 1 MP in Firer's LOS) [J[1] NA]..........................Case J +2
@L J[3] FFNAM (Case J is NA) (C6.13)...-1
@L J[4] FFMO (Case J is NA) (C6.14)..-1
@L K vs Concealed Target (or Area Fire; C.4) (C6.2)...+2
† L. Point Blank Range (Non-Stopped/Motion target/firer NA) (C6.3)......[2 Hex Range: -1]................-2
M. Bore Sighted Location (Case N, E is NA) (C6.4)...-2
G N. Acquired Target (NA to Case G) (C6.5)..as per Acquisition Counter
@L O. Target using Hazardous Movement (all Case J are NA) (C6.6)..-2
@L P. Target Size Modifier (-2 to +2) (C6.7)...per Vehicle/Gun Target Counter
†@L Q. TEM (C6.8)..Per TEM
@L R. LOS/LV Hindrance (C6.9; E3.1)...Per LOS/LV Hindrance

Other:
@L vs Overstacked Personnel: -1 per overstacked squad (A5.131)
@L vs Motorcyclist -1 (D15.5)
@L vs Cavalry -2 (A13.5)
@ Aerial attack vs Upper-Cliff-cave/its contents: height above Base/Crest Level (G11.86)
@L vs Wading Vehicle (G13.422): +2
L Target in Ocean during Heavy Surf if the attack is resolved on the IFT (G13.445): +1

C2.5 CONDITIONAL ROF: Δ

Non-Vehicular NT Gun *[EXC: 76-82mm Mortar]* reduces ROF (for next shot in same phase) by 1 for CA change

C2.6 GUN ELEVATION/DEPRESSION: Δ

Range ≥ Elevation Difference unless AA capable or MTR

C3.6 IMPROBABLE HITS: Δ

Original TH DR 2: subsequent dr: 1: CH; 2: Turret; 3: Hull; 4-6: Miss

C3.8 MULTIPLE HITS: Δ

Gun must be ≤ 40mm or U.S. and British Multi-Applicable Vehicle Note R, Chinese Vehicle Note 7; Any non-Critical Hit TH DR of Doubles yields choice of two resolution DR.

C3.9 LOCATION OF VEHICULAR HIT: Δ

Turret Hit: TH DR colored dr < white dr
Hull Hit: TH DR colored dr ≥ white dr

ORIGINAL 12 DR SUMMARY:

- AFV with red MP immobilized on Mechanical Reliability DR (D2.51)
- ATMM CC Dud (C13.74)
- Burning building collapse during Spreading Fire (B25.66)
- CC Defender may withdraw (A11.22)
- CC Attacker vs manned vehicle suffers Casualty Reduction (A11.621)
- Climbers Fall (B11.41)
- DC/SCW/To Kill DR is Dud (A23.4, C7.35)
- Elim/Im Flail vs A-T/A-P Mines (B28.71)
- Gusting Winds (B25.651)
- Level A/C Booby Trap Attack (TC DR) causes Casualty Reduction (B28.9)
- Minefield Clearance DR causes Casualty Reduction (B24.74)
- MMC Replaced in Ammunition Shortage (A19.131)
- Multiple Casualties on MC (A10.31)
- OVR Malfunction or Immobilization (D7.17)
- PF To Hit DR causes Casualty Reduction to firer (C13.36)
- Rally suffers Casualty Reduction (A10.64)

† NA when using Area Target Type @ Applicable to Aerial Attack
L Applicable to LATW even if using own To Hit Table
● ATR/MG counters use Black TH# unless captured HH Hull Hit Required
G NA to non-mortar SW S NA to SW

D2 NON-TERRAIN RELATED VEHICULAR MP EXPENDITURES

1 MP Per Hexspine Change in VCA (D2.11)

2 MP Per Hexspine Change in VCA in woods/building/rubble terrain (D2.11)

1 MP to start if not In Motion (D2.12); Red MP = Mechanical Reliability; Start DR of 12 = Immobilized (D2.51)

1 MP to stop movement (D2.13)

1 MP per vehicle/wreck (D2.14) *[EXC: Motorcycles]*

2 MP per vehicle/wreck if using road movement rate (D2.14) *[EXC: Motorcycles]*

1 MP per road hex if BU (D2.16); Towing a Gun (C10.1)

Minimum Move: ALL MP plus end MPh in Motion Status (D2.15); VCA-change/Reverse NA

Reverse Move: Tracked: 4 × MP Entrance cost, Truck: 3 × MP Entrance cost, AC: 2 × MP Entrance cost (D2.21)

Bypass: 2 × COT per hexside other than building/woods obstacle bypassed (D2.3)

Bypass VCA Change: 1MP; MUST move into new hex/hexside (D2.33)

HD Maneuver Attempt: Two extra MP following VCA change or hex entry (D4.22)

(Un)Load Infantry: 1/4 MP allotment; a loading vehicle cannot have spent any MP (D6.4); 1/4 MP per each MF spent by (un)loading Infantry (D6.4-.5); ESB NA if ≥ 3MF already spent.

OVR Attack: 1/4 MP (FRU) allotment (D7.1) in addition to COT to enter hex

Bog Removal: If freed; MP = colored dr × white dr or ALL (×2 if non-tracked vehicle) (D8.3)

Smoke Dispenser Firing: 1 MP during own MPh if sucessful (D13.2)

Hooking/Unhooking Guns: 1/2 or 2/3 (M#) MP (FRU) allotment (C10.11)

Intermediate Level of Abrupt Elevation Change: 4 MP to Ascend; 2 MP to Descend (B10.51)

Fully-Tracked inside Factory: 1/4 MP allotment plus Bog Check (B23.742)

Entry of enemy AFV hex (D2.6): must be out of LOS or able to destroy or shock that AFV with an Original TK or IFT DR of 5

D8.21 BOG CHECK DRM

DR + DRM ≥ 12 results in Bog Δ

DRM	Cause
+1	Vehicle has Normal Ground Pressure
+2	Vehicle has High Ground Pressure
+1	Vehicle is towing ordnance [1] or Trailer
+1	Ground is specified as soft,[2] mud,[2] or snow-covered [3]
+1	Ground is specified as Deep Snow [3]/vehicle is crossing a Drift (E3.752)
+1	Vehicle is not fully-tracked
+1	Vehicle has Truck-type MP Expenditure
+1	Making an Abrupt Elevation Change
+1	Exiting a Deep Stream & vehicle is neither amphibious nor water-proofed
+1	Gaining elevation and entering woods
+2	Moving into Wire
+3	*Entry of woods, graveyard, wooden building, or rubble at half MP allotment
+4	*Entry of stone building at half MP allotment

BOG DR ≥12

* +1 instead if moving from Factory hex to non-rubble hex within the same Factory (B23.742)

[1] NA if ordnance is 76-107mm Mortar

[2] NA if on paved road or in a building hex

[3] NA if in building hex or on plowed road

D8.3 BOG REMOVAL

Freed on Colored dr of 1-4

Start MP = Colored dr × White dr or ALL MP (and × 2 if not tracked)

Colored dr	Result
1-4	Freed
5	Mired
6-7	Immobilized

MIRED +1 Bog dr

BOG DR ≥12

Mired: +1 drm to colored dr

CE AFV Assistance: -1

(D3) AFV PHASE/MOTION FIRE MODIFIERS

	MG	FT[9]	Ordnance	Notes
PFPh—Stopped	Full FP	Full FP	No DRM	—
PFPh—Motion		Cannot fire any weapon		
MPh—Stopped	1/2 FP	Full FP	C,C[1], or C[2]	1,2
MPh—Non-Stopped	1/4 FP	1/2 FP	C[4]	1,2,3
DFPh—Stopped	Full FP	Full FP	No DRM	4
DFPh—Motion	1/2 FP	1/2 FP	C[4]	1,3,4
AFPh—Stopped	1/2 FP	Full FP	B or C	5,6
AFPh—Motion	1/4 FP	1/2 FP	C[4]	1,3,6
CCPh—Stopped	Full FP	NA	NA	—
CCPh—Motion	1/2 FP	NA	NA	7,8

Notes:

1: Area Target Type NA (C3.33), Acquisition lost unless Stabilized Gun (C6.55)

2: To Hit DRM Case A NA (The CA must be changed by expending MP) (D3.51)

3: To Hit DRM Case L NA

4: This line also applies to units using Defensive First Fire

5: Ordnance use Case B if vehicle has not moved to a new hex/or used VBM during that Player Turn. If it has moved, the vehicle uses Case C (C5.3).

6: Multiple ROF/Intensive Fire NA (C5.2 & C5.6)

7: Enemy Infantry not held in Melee (A11.7)

8: The FP of Nahverteidigungswaffe (sN) is not halved (A11.622)

9. FT TK # unaffected

D2.5 EXCESSIVE SPEED BREAKDOWN DRM Δ

MP Gain must be ≤ 1/4 MP Allotment (FRD)

Breakdown: DR + MP Gain + ESB DRM ≥ 12

Black MP (FRD) **Red MP (FRU)**

ESB Nationality of Manufacturer DRM:

0:	U.S. (a), Czech. (t)
+1:	Russian (r), all Chinese
+2:	British (b), German (g)
+3:	French (f), Italian (i), All others

TC Immobilized D5.5

D4.22 HD MANEUVER ATTEMPT

Two extra MP plus one MP to Stop

dr 1: 3 or less hexsides are HD

dr 2: 2 or less hexsides are HD

dr 3: 1 hexside is HD

1/2 HD

BU: +1

★CT: +2

drm:

BU: +1; Russian CT AFV: +2; Armor Leader DRM; attempt at setup

D5.34-.43 STUN/RECALL & SHOCK/UK

stun +1

stun
BU
No Repair/
Fire/Move

+1
TH/MC/TC
IFT/CC/OVR

Occurs when:

√ CE AFV crew that qualifies for normal CE DRM fails a MC
√ CE crew of a fully armored AFV is attacked by a "2" Sniper dr
√ MG Final TK DR vs any AFV equals the Final TK#
√ Falling Rubble lands on a CE CT AFV

Results:

- Place Stun counter. AFV immediately stops at no cost and becomes BU (including Passengers).
- For remainder of Player Turn, Stunned AFV may not move/expend MP/Interdict/ attack (even in CC—Rider hero can fire AAMG).
- Beginning next RPh, flip counter to +1 side and add one to any TH, MG/IFE/FT IFT, CC, TC/MC, Crew Survival, or OVR DR.

STUN-RECALL

STUN
BU
No Repair/
Fire/Move

RECALL
+1
TH/MC/TC
IFT/CC/OVR

Occurs when:

√ CE AFV crew that qualifies for normal CE DRM suffers K/KIA or Casualty MC result
√ CE crew of a fully armored AFV attacked by a "1" Sniper dr
√ 1MT AFV suffers a Stun Result*
√ AFV suffers a second Stun Result*

Results:

- Place Stun counter. AFV immediately stops at no cost and becomes BU (including Passengers).
- For remainder of Player Turn, Stunned AFV may not move/expend MP/Interdict/ attack (even in CC—Rider hero can fire AAMG).
- At the end of CCPh, flip counter to +1 side and add one to any TH, MG/IFE/FT IFT, CC, TC/MC, Crew Survival, or OVR DR.
- Recall eliminates any Armor Leader present in that AFV *[EXC: Inexperienced Crew; D3.45]*.

* A SMC acting as Temporary crew (A21.22) becomes Wounded if he suffers a Stun result (even while in a 1MT AFV). If he suffers Recall *[EXC: due to Disabled MA; Stunned in a 1MT AFV]* he is eliminated.

Beginning in its next MPh:

- Recalled AFV** must attempt to exit playing area along Friendly Board Edge along shortest route (in MP) using Motion status. ESB is NA
- If carrying Passenger(s)/Rider(s) it must unload as soon as possible after Recall occurs.
- Bogged/Immobilized/Recalled AFV must be Abandoned, crew no longer obliged to leave the board, but may not re-crew that AFV.

** Any vehicle whose MA and all Secondary Armament are disabled is immediately Recalled unless vehicle has Passenger/Towing capability

C7.4 SHOCK/UNCONFIRMED KILL

SHOCK
BU
1-2: OK
3-6: flip

UK
BU
1-3: OK
4-6: Elim

Occurs when:

√ Automatic Shock is caused by HE turret hit or FFE/DC effect DR one > the Final TK#/K IFT result
√ Turret hit TK# equal to Final TK#/K IFT result on Direct, Indirect, and DC attacks
√ AFV non-HE To Kill DR is one > the Final TK# equals Possible Shock. AFV crew takes NTC, failure of which results in Shock

Results:

- Place Shock counter. Shocked AFV immediately stops and immediately BU, Collateral Attack NA *[EXC: vs. Vulnerable Riders as per D.8]*
- Shocked AFV may not move (nor change TCA), Interdict/attack (even in CC) No MP expenditure necessary to stop shocked AFV.
- At the end of RPh, AFV must roll for recuperation (Δ) even if already Abandoned; dr ≤ 2, Shock counter is removed; dr ≥ 3 flipped to UK side.
- AFV under UK is still shocked, and must end next RPh by rolling again for recuperation; dr ≤ 3, UK counter is removed; dr ≥ 4 AFV is flipped to wreck-side, Crew Survival is NA.
- Shocked AFV hit by another Shock result must flip UK counter to Shock side; if already on Shock side there is no additional effect.

C13.7 ANTI-TANK MAGNETIC MINE

Available only to unpinned, unbroken German Infantry (1/44+) or Japanese Tank-Hunter Hero (anytime) against a vehicle *[EXC: wagon/motorcycle]* as part of CC; if successful adds -3 DRM to unit's CC attack.

ATMM Check dr (Δ)	Result
≤ 3	Successful
4-5	No Effect
6	Pinned*

* Original 6 Check dr pins the unit, even if Berserk *[EXC: T-H Hero; G1.4231]* and reduces CCV by 1 for subsequent attack (A11.5)

ATMM Check dr Modifiers (T-H Hero NA)

+1 HS/Crew
+2 SMC
+1 CX
+1 vs non-AFV



T-H Hero (only) ATMM Check dr Modifiers

+1 Scenario is pre-1944

- If a SMC attempts an ATMM check, no unit making a combined attack with it may make an ATMM Check dr of its own.
- Original CC DR 12 results in ATMM malfunction in addition to possible Casualty Reduction (A11.621).
- ATMM cause Gunflash *only* if vehicle is damaged (E1.85)

D1.8 VEHICULAR MG

Listed on counter, in vehicle listing as:

BMG/CMG/AAMG

BMG = Bow MG FP/**CMG** = Coaxial MG FP/**AAMG** = Anti-Aircraft MG FP; if no AAMG present listing is BMG/CMG. Superscript R# (EX: "R2") after BMG or CMG FP denotes Rear MG (RMG). RMG may only fire through rear VCA (for rear BMG) or rear TCA (for rear CMG), or in own hex. BMG printed over white dot is a Fixed-Mount (D1.81), cannot be Scrounged and receives +1 DRM when firing at a moving/Motion target.

	BMG[1]	CMG[2]	AAMG[3]
Range	8 hexes	12 hexes*	8 hexes
CA	Thru VCA only	Thru TCA only	No TCA/VCA restriction

[1] Non-MA BMG cannot be used vs target if firing vehicle is HD to target's position.

After *phase* in which a vehicle becomes bogged/immobile BMG may be used against a target in that vehicle's hex *only* during Defensive First Fire (thus unusable in CC), only if target is entering hex within the vehicle's VCA, and only a number of times ≤ the MF/MP expended by the target to *enter* the hex (if BMG is MA).

[2] If a vehicle's MA has AA capability, then its CMG does too. Use of a CMG vs non-acquired target causes loss of pre-existing Acquisition by the MA. If CMG is restricted to firing *only* through its VCA (shown by "CMG:VCA Only" on the counter back), that CMG may not attack in CC but does void -1 CC DRM for an attack vs a vehicle "without manned, functioning MG armament".

[3] AAMG must be manned by CE (D5.3) crew members to be used *[EXC: Hero A15.23]*.

* A turret Rear MG has a Normal Range of eight hexes, may not be used in OVR or in same phase MA fires; can fire only through its rear turret Target Facing or at a target in the same hex (D3.51).

See D3.51 for maintaining CA and TCA/VCA penalties

C13.3 PANZERFAUST

Available 10/43+ *[EXC: PFk available 8/43+ by SSR only]* to unbroken German Infantry during Friendly Fire Phase and may only fire at a vehicle or Gun, or Infantry/Cavalry receiving a wall/roadblock/building/rubble/pillbox TEM. NA as Subsequent First Fire or Final Protective Fire (A8.3-.31). PF leave no Residual FP.

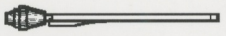
PF/PFk available: Equal to # of squads in OB pre-1944; $1^1/_2$ × number of squads (FRD) 1/44-12/44; 2 × number of squads (FRD) in 1945.

PF/PFk Availability Final dr (Δ)	Result
≤ 3	Successful
4-5	No Effect
6	Pinned*

* Original 6 Availability dr pins firer (even Heroic, Berserk) or breaks firer already pinned; Casualty Reduces pinned heroic/berserk firer.

PF/PFk Availability dr Modifiers	Range (hexes)	Date
+1 Date is 8/43-9/43 (PFk only)	1*	8/43-6/44
-1 Date is 1945	2	6/44-12/44
+1 Target not an AFV	3	1/45+
+1 CX firer		
+1 Firer is HS/Crew		
+2 Firer is SMC		

*PFk always has one hex range



BASIC TH#	Range
≤ 10	0
≤ 8	1
≤ 6	2
≤ 4	3

PF Basic TK#: **31**
PF HE equivalency: **16FP**
PFk Basic TK#: **22**
PFk HE equivalency: **12FP**

Original TH DR 12 (≥ 11 for Inexperienced Infantry) results in a Miss and Casualty Reduction. Fire from inside vehicle, pillbox, sewer, or upper-level building invokes a Desperation penalty,† as does non-Opportunity fire from ground-level rubble or the ground floor of a building that is not applying Case C[3]. TK/IFT DR 12 result is a Dud (C7.35) or No Effect on the IFT.

† Desperation penalty: all occupants of firing Location undergo attack on the 1 FP column of the IFT using the **colored dr** of the To Hit DR.

Barring Random Selection ties, only 1 Infantry/Cavalry unit affected if fired at non-vehicle—firer may choose affected unit if Known and manning a SW/Gun.

C8.4 CANISTER FP

Gun Size	IFT FP
37mm	12
75mm	20
105mm	24

H1.531 AIR SUPPORT AVAILABILITY TABLE

	1937	1938	1939-40	1941	1942	1943	1944	1945
German†	—	—	7[5]	6*[5]	5*[4]	4*[3]	3*[3]	2*[3]
Russian	—	—	4[3]	3[3]	4[3]	5[5]	6[5]	7[5]
U.S.	—	—	—	2[1]	4[2]	5[3]	6[4]	7[5]
British@	—	—	4[1]	4[1]	5[2]	5[3]	6[4]	7[5]
Italian††	—	—	4[1]	4[2]	4[2]	3[2]	—	—
Japanese	5[4]	5[4]	5[4]	5[4]	5[4]	4[4]	3[4]	2[4]
France**	—	—	4[1]	4	4	—	—	—
G.M.D.^	5[2]	4[2]	3[1]	2[1]	3[1]	3[1]	4[2]	5[3]

† If the German player in a pre-1944 scenario rolls < the exponent, he receives one or more Stuka Dive Bombers; if he rolls equal the exponent he receives one or more FB. Axis Minor Air Support Availability Number is always two less than German.††

* Air Support Availability Number vs. Russians is one higher.

@ Includes Commonwealth, Free French, and forces of other conquered countries fighting with British backing.

** Includes France through June, 1940, other Allied Minor Countries, and Vichy France.

†† An Italian or Axis Minor bomb availability dr of 1 in a 1942-43 scenario results in receiving Stuka aircraft—not FB.

^ G.M.D. may only purchase Observation Planes (H1.532) for OBA ≥ 100mm and only for scenarios set in 1944-45, otherwise they use Air Support normally *[EXC: Napalm G18.831]*. The Red Chinese may not purchase Air Support.

E7.22-.221 DOGFIGHT DR SUMMARY

Final DR ≤ 4	Eliminates target
Final DR 5	Damages target
Final DR ≥ 10	Target has Recall option
Original 11*	vs Stuka; Rear Gunner
*cdr 6	FB Eliminated
*cdr 5	FB Damaged





DRM	Cause
+1	Firer is Stuka
+1	Firer has bombs
+1	Firer is Damaged
-1	Target is Damaged
-1	Target is not a FB
-1	Target has bombs

E1.55 JITTER FIRE; Straying DR Doubles



Doubles DR	Result
2	Closest DEFENDER Jitter Fires
4	Closest DEFENDER Jitter Fires unless Stealthy
6	Closest DEFENDER Jitter Fires unless Stealthy or Normal
8	Moving unit(s) Jitter Fires unless Cloaked, Stealthy or Normal
10	Moving unit(s) Jitter Fires unless Cloaked or Stealthy
12	Moving unit(s) Jitter Fires

E1.23 RECON drm:

British, Partisans, Russians, Japanese	+1
Stealthy	+1
Germans, U.S.	0
All other nationalities	-1
Lax	-1

E2.42 INFORMATION TABLE

dr	Result
0	Defenses Compromised (E2.24)
1-2	Hidden Fortification(s) Revealed* (E2.23)
3-4	HIP Unit(s) Revealed* (E2.22)
5-6	Concealed Unit(s) Revealed* (E2.21)
7	False Information. Affected unit(s) are TI

* If not applicable, select any result with a higher Final dr up to a maximum of 6. Right of Inspection (A12.16) applies regardless of LOS. Friendly Country: -1 drm; Hostile: +1 drm

E3.31 FOG LEVEL

dr	Level Affected
1	Level -1 and lower
2	Level 0 and lower
3	Level 1 and lower
4	Level 2 and lower
5	Level 3 and lower
6	Level 4 and lower

E7.3 SIGHTING TC DRM

DRM	Condition
+X	SMOKE Hindrance DRM as per E.6
+3	Target is in building/woods/rubble/orchard (in season)
+1	Target is in brush, grain, marsh, crag, graveyard
+1	Target is within four hexes of non-HIP vehicle/MMC friendly to and in the LOS of the aircraft
+1	Mist/Dust/Heat Haze (regardless of the Aerial Range)
-1	Target is vehicular, or boat in water
-1	Target has entered a new hex/used VBM/been in Motion during this Player Turn*
-1	Target is part of a Convoy or Column
-1	Target has been attacked by a friendly plane during this Player Turn
-2	Target is not entirely concealed/HIP

*Dashing or movement totally inside a building/trench/pillbox is not applicable

E3.311 FOG DENSITY

Inherent Smoke DRM

dr	per Hex
1	+1
2-3	+2
4-6	+3

E2.2 INTERROGATION TABLE

Final DR	Result	DRM	Cause
≥ 6	No Effect	-1	Prisoner is Inexperienced
5	Concealed Unit(s) Revealed	-1	Prisoner is squad
4	HIP unit(s) Revealed*	+1	Prisoner is SMC
3	Hidden Fortification(s) Revealed*	+1	Prisoner's Heroic DRM
≤ 2	Defenses Compromised	+1	Prisoner is Elite
		+1	Guard is Inexperienced

* If not applicable, select any result with a higher Final DR. If equidistant qualifying hexes exist, the choice of which hex to reveal is made by the interrogated player. Automatic Right of Inspection (A12.16) regardless of LOS is permitted of any non-concealed unit(s).

E8.23 GLIDER CRASH dr



Final dr 7 = Damaged
Final dr ≥ 8 = Eliminated

drm	Condition
+1	Not landing in final ILH; glider is Damaged; night landing; landing during Gusts, landing in shellholes, trench, hedge†, marsh, fordable river, Crest Line†, or Location that contains a vehicle@/wreck@/previously-landed glider@
+2	Landing in orchard, stone wall†, graveyard, bocage†, Depression, roadblock†
+3	Landing in woods, building/rubble, bridge, crag, cliff†, or in a Blind Hex* as determined by the Avenue of Approach

@ +1 maximum

* Bocage does not create a Blind Hex

† Applicable only if the hexside was crossed

E3.7 DYO SNOW CHART

Final dr	Condition
0-1	Falling Snow
2	Ground Snow
3	Ground Snow & Falling Snow
4	Deep Snow
5	Deep Snow & Falling Snow
6	Deep Snow & Drifts
7	Extreme Winter (make another dr; see E3.74)

drm: Dec-Feb: +1; Mar, Nov: -1

E3. DYO TEMPERATE WEATHER CHART

DR	Mar, Apr, May	Jun, Jul, Aug	Sep, Oct, Nov	Dec, Jan, Feb
2	Mud	Overcast	Fog/Mist	Gusty
3	Mud	Clear & Gusty	Clear & Gusty	Overcast
4	Clear & Gusty	Fog/Mist	Mud	Mud & Overcast
5	Overcast	Overcast	Overcast	Clear & Gusty
6	Clear	Clear	Clear	Snow
7	Clear & Gusty	Clear	Clear	Clear
8	Clear	Clear	Clear	Clear & Gusty
9	Fog/Mist	Clear	Clear & Gusty	Snow
10	Mud	Clear & Gusty	Mud	Snow
11	Mud & Overcast	Mud	Mud & Overcast	Snow
12	Snow*	Mud & Overcast	Snow*	Snow

* March & November only; otherwise treat as Overcast.

NIGHT (E1.)

NVR CHANGE (E1.12)

NVR 6 cdr

- No change First Player Turn
- One hex unless Scattered Clouds
- Minimum NVR is 0, maximum NVR is 6
  [EXC: 2 and 9 for Ground/Deep Snow]
- Wind Change DR:
  cdr = 6 & wdr
  - ≤ 3: Lowers NVR
  - = 4: Increases NVR *[EXC: no change after Starshell/IR placed]*
  - ≥ 5: Increases NVR

LINE OF SIGHT (E1.1-.15)

LOS from non-Illuminated Location to:
- Within NVR (NVR halved [FRD] from BU AFV)
- Illuminated Locations
- Moving vehicles (1.5x NVR [FRU], or 2x if tracked)
- Gunflashes (treated as a concealed unit if beyond NVR)

LOS from Illuminated Location to:
- Illuminated Locations
- Gunflashes (treated as a concealed unit)

STARSHELLS/IR (E1.92-.93)

First time (during PFPh, MPh, DFPh) if:
- LOS to enemy unit
- Moving enemy vehicle within 16 hexes (no friendly vehicles on board)
- Friendly Gunflash
- Enemy FFE

3

During subsequent Player Turns only at beginning *[EXC: A leader may place Starshells at any time during Phase]* of:
- PFPh (ATTACKER)
- MPh (DEFENDER Starshells)
- DFPh (DEFENDER IR)

IR

Usage dr:
- ≤ 4: Leader/CE-armor-leader, mortar IR
- ≤ 2: MMC, CE AFV crew

PLACEMENT

Placement methods:
1. In hex (Starshells only); one hex drift.
2. Along LOS to Known enemy unit (must be < 9 hexes for Starshell); drift ½ dr (FRU).
3. At 3 (multiple of 6 for IR) hexes; drift 1 full dr.

- Successful Starshell placement does not limit the placer's actions, place a Gunflash, or cause concealment loss, but does cause loss of HIP/Cloaked status.
- Successful IR placement uses the mortar's entire ROF and places a Gunflash.

DEFENSE (E1.16-.21)

Scenario Defender:
- 25% (FRU) of squad equivalents (incl. HS/Japanese-crews) set up HIP
- Fortifications set up and remain HIP until TEM used, or extra MP paid to enter/exit in LOS of enemy, or Location entered by enemy unit
- SMC/SW HIP when set up with MMC
- All units set up concealed
- Concealment and HIP in non-Concealment Terrain
- One dummy counter per squad equivalent (incl. HS/Japanese-crews)
- All units lack Freedom of Movement.

Foxhole 5 1S OVR, OBA: +4 Other: +2

STRAYING (E1.53; 1.55)

Straying NA if:
- LOS to Known enemy unit, or Beach/Ocean
- On or ADJACENT to road, gully, stream, path, river bank, or Illuminated Location
- Moving within same hex; entering sewer/tunnel
- IN cave/cave-complex

Movement DR:

cdr = 6 & wdr = 5-6: Stealthy Strays
= 3-6: Normal Strays
= 1-6: Lax Strays

TI No: Adv, Move, Fire CC: +1/−1

Subsequent Straying DR (cdr) determines direction (Jitter Fire on doubles after first attack)
- Move "as far as possible"
- **TI if:**
  - Cannot move one hex without Double Time, Minimum Move, or ESB
  - Next Location would require: climbing, using stairwell, fording, scaling, or swimming; moving closer to a Known enemy unit, or offboard; entering an Illuminated Location
  - Gains LOS to Beach/Ocean hex

MOVEMENT PHASE (E1.5)

- Cavalry/non-Cloaked Infantry pay 1 MF extra in Concealment Terrain
- Vehicles pay 1 MP extra per hexside
- If NVR is 0, Double Time, Infantry road bonus (B3.4), Gallop, and expending MP *[EXC: to Stop]* are NA
- +1 DRM to Falling DR
- Fire Lane beyond NVR; special Fire Lane at Bore Sighted Location
- +1 Recovery drm

4

ROUTING (E1.54)

DM Rally: +4

- DM until Original Rally DR ≤ morale
- No elimination for Failure to Rout
- Low Crawl only (toward any terrain type)
- Can Low Crawl ADJACENT to (but not toward) Known enemy unit

CLOSE COMBAT (E1.77)

ATTACKER gains Ambush with dr 2 less than **DEFENDER** in non-Illuminated Locations

CC

FIRES (E1.94)

BLAZE: Illuminated Zone equals 2 times number of blazing levels
FLAME: Illuminates own Location

BLAZE

FREEDOM OF MOVEMENT (E1.21)

GAINED IF:
- LOS to Known enemy unit
- Attacked by enemy *[EXC: OBA/Sniper]*
- Stacked with Good Order SMC with Freedom of Movement at beginning of unit's MPh
- Best leader if dr < ELR at start of Movement Phase (after any attack by Scenario Attacker)

NO MOVE E1.21

COMBAT (E1.7-.88)

- Multi-Location FG NA
- Acquisition in Illuminated Locations only
- +1 Night LV Hindrance *[EXC: NA with HA TEM or target terrain ≥ 1 Level higher than firer]*
- Gunflash placed in any Location where:
  - A unit fires *[EXC: MOL/PIAT does not leave in own Location]*
  - A Melee exists
  - A unit becomes broken/Immobile/Reduced/eliminated by mine attack
  - Location attacked by MOL/FT
  - DC detonates
  - ATMM damages a vehicle
  - HE FFE Blast Area (SR can be seen by Observer only)

CONCEALMENT/CLOAKING (E1.3-.43)

CONCEALMENT GAIN:
- Automatic when dr needed during day

CONCEALMENT LOSS:
- Non-Assault Movement: Only when entering Illuminated/enemy-unit's Location
- Assault Movement: Only when entering enemy unit's Location
- Firing: Only when in Illuminated-Location/enemy-NVR

CLOAKING:
- One Cloaking counter per squad equivalent (incl. HS/Japanese-crews)
- Six MF; road or ski bonus only; no Double Time
- No extra MF costs for Concealment Terrain

CLOAKING LOST:
- As if concealment
- For making an attack *[EXC: successful Ambush]*
- For successfully placing a Starshell
- Suffers Sniper attack (all units placed onboard unconcealed)

? 7 morale

MISTAKEN FIRE (E1.76)

- SAN 2 greater than printed value
- Captured MG use causes automatic SAN dr

6 1 2 5 4 3

CLOAKING DISPLAY

A	B	C	D	E
F	G	H	I	J
K	L	M	N	O
P	Q	R	S	T
U	V	W	X	Y
Z	AA	BB	CC	DD
EE	FF	GG	HH	II
JJ	KK	LL	MM	NN

F. DESERT TERRAIN CHART

Terrain	Example	LOS Obstacle /Hindrance	TEM/Indirect†	MF ENTRANCE COST			MP ENTRANCE COST					Kindle # /Spread #	Fortifiable	Notes
				Infantry	Cavalry	Horse Drawn	Motorcycle	Armored Car	Fully Tracked	Halftrack	Truck			
1. Open Ground	26B1	—	0 FS	1	1	1 bb	1 Gir	1 bbGir	1 bbr	1 bbir	1 bbGir	—	Yes f	
2. Scrub E	26E9	—	0 FS	1	2 r	2 r	4 r	4 bbr	2 bbr	3 bbr	6 bbr	—	Yes f	
3. Hammada	26D4	—	−1* F	1	3 r	3 r	4 Ir	4 Ir	2 r	3 Ir	6 Ir	—	Yes f	Cumulative, DC, or ordnance/OBA HE, vs unarmored; otherwise 0
4. Deir	Ovrly "D"	—*	+1**©/0 S	COT	COT	COT	DOT hi	DOT bbhi	DOT bbh	DOT bbhi	DOT bbhi	—	Yes f	*Limited LOS if entrenched/Emplaced in non-Lip hex **(or HD) vs same-level fire across non-adj. Lip
5. Wadi	25P9; Ovrly "W"	Depression	DOT*	2** r	2** r	ALL r	4+COT ir	4+COT bbir	2+COT bbr	3+COT bbir	6+COT bbir	—	Yes f	*Crest status possible for *all* units **+COT if not OG
6. Hillock	Ovrly "H"	■ Half-Level	0* FS	COT	COT	COT	DOT iL	DOT bbiL	DOT bbL	DOT bbiL	DOT bbiL	—	Yes f	+1 TEM or HD possible if behind and "adjacent" (F6.4) to hillock
7. Sand	Ovrly "S" and "SD"	—**	0 FS	1*+COT r	2*+COT r	2*+COT br	4*+COT r	4*+COT br	2*+COT br	3*+COT br	6*+COT br	—	Yes***	*Reduce by 1 for Wet/Mud EC **■ Half-Level if High Dune ***pillbox/trench/sangar NA; foxhole TEM halved if no Wet/Mud EC
7.5 Dune Crest	Ovrly "SD"	Half-Level	+1*©/0	1+COT	1+COT	1+COT	1+COT	1+COT	1+COT	1+COT	1+COT	—	—	Vs fire along/across Crest from elevation ≤ target's; otherwise 0
8. Sangar	Counter	—	+1/+3 ©	COT*	COT**	COT**	COT**	COT**	COT**	COT**	COT**	—	—	*+1 MF to enter/exit beneath [EXC: via Accessible trench; F8.6] **COT×2 if Accessible trench present; F8.5
9. Track*	SSR	—	DOT FS	T	T	T	T	T	T	T	T	—	Yes f	Can negate Bog/Hammada-Immobilization DR
10. Hillside Wall /Hedge	25X4-X5; 25U3-U4	Half-Level	+2 or +1*© /+1 or 0*©	W	W	NA	W	W	W	W	NA	—	—	Wall/hedge respectively. Wall Advan and TEM NA to lower unit
13.1 Broken Ground*	SSR	—	+1	2 r	2 r	2 br	6 Ir	6 br	2 br	2 br	2 br	—	Yes f	Non-Depression OG hexes Accessible to hammada
13.3 Cactus Hedge	SSR	Half-Level	+1/0 ©	Y	NA	NA	W	W	W	W	NA	—	—	Wall/hedge hexsides
13.4 Cactus Patch*	SSR	■ Half-Level	+1	3 r	3 r	3 r	9 r	9 r	3 r	3 r	12 r	12/10	Yes f	"Ex-orchard" hexes. Always in season
13.5 Olive Grove*	SSR	■ One-Level	+1	2 r	2 r	2 r	6 r	6 r	2 r	2 r	8 r	11/9	Yes f	"Ex-orchard" hexes. Always in season
13.6 Vineyard	SSR	■ Hindrance	0	2 r	2 r	2 r	4 r	4 Br	2 Br	2 Br	6 Br	9/6	Yes f	

†: Indirect Fire TEM is listed following "/" only if different than Direct Fire TEM.
*,**,***: See Notes Column.
■: Whole hex affects LOS (Inherent Terrain; B.6).
B: Requires Bog DR to enter/change VCA within unless on road or track.
b: Requires Sand Bog DR to enter/change VCA within (even if scrub is present) unless on road or track.
bb: May require Sand Bog DR if Accessible to Sand; F7.31.
©: Not cumulative with +TEM in same hex.
COT: Cost of Terrain.
DOT: Dependent on Other Terrain in hex.
E: Concealment Terrain only for Infantry/Entrenchments/Emplaced-Guns; F2.3.
F: −1 FFMO can apply if no HA.
f: +2 DRM for Entrenching Attempt on Desert Board (F.1) unless Sand is present; F.1B.
G: Chap. B costs if on a Board 25 hill hex; F.2A.
h: 1 MP + COT if leaving deir hex via Lip hexside; otherwise, cost is COT (usually OG).
I: Hammada Immobilization DR required unless on road or track; F3.31.
i: May require Hammada Immobilization DR if Accessible to Hammada; F3.31.
L: 1 MP/MF + COT if entering a higher elevation; otherwise, cost is COT (usually OG).
r: Road cost instead if through Road/Runway, or track cost if through track, hexside.
S: Most ordnance/OBA FP halved on IFT if Sand is present; F7.4.
T: If crossing Track hexside, reduce *total* MF/MP cost by 1 (to minimum of 1) before adding any Weather/Towing/Convoy/SMOKE/Dust cost; F9.1.
W: As per Chapter B Terrain Chart for wall/hedge.
Y: Crossable only via Minimum Move, Low Crawl, or Advance vs Difficult Terrain.
Terrain listed in red is Concealment Terrain.

F3.31 HAMMADA IMMOBILIZATION DR △

Original DR ≥ # = Immob.

MP Type	In Hammada Hex COT	In Hammada Hex 2 × COT	In OG[b] Hex Access. To Hammada COT	In OG[b] Hex Access. To Hammada 2 × COT
Truck, < 4 tons	11	12	12	NA
Truck, ≥ 4 tons;				
British-built	11	12	12	NA
Other	10	11	11	12
Armored Car	11	12	12	NA
Halftrack	11	12	12	NA
Full-track	NA	NA	NA	NA
Motorcycle	10[c]	11[c]	11[c]	12[c]

[a] NA if following a track or road.
[b] [EXC: scrub, hammada, sand]
[c] The Rider breaks and is dismounted as per D15.46. An Original DR > this # eliminates the motorcycle; F3.32.

BOG DR ≥ 12

F7.31 SAND BOG DR △

Original DR ≥ #[b] = Bog

Ground Pressure	Non-Brit.-Built tr[c] In Sand	Non-Brit.-Built tr[c] In Access. OG[d] Hex	Brit.-built tr; AC; ht In Sand	Brit.-built tr; AC; ht In Access. OG[d] Hex	Full-Track In Sand	Full-Track In Access. OG[d] Hex
Low	10[e]	11	11[e]	12	12[e]	NA
Normal	9[e]	10	10[e]	11	11[e]	12
High	8[e]	9	9[e]	10	10[e]	11

[a] NA if following a track or road.
[b] Increase # by one if EC are Wet or Mud.
[c] (And weighing ≥ 4 tons).
[d] [EXC: hammada; sand.]
[e] Lower # by one if the present hex was entered via a Dune Crest (7.51) hexside.

F11.1 ARID CLIMATE SUMMARY

RULE	MAY BE APPLICABLE/IN-EFFECT ONLY WHEN
Arid Weather Chart (11.2) Arid EC Chart (11.4) Arid Wind Force Chart (11.5)	DYO scenario is set in an Arid Land (North Africa, Middle East, Mediterranean isles, or East Africa; see 11.2).
Time of Day Table (11.3)	DYO scenario uses ≥ one Desert Board (F.1).
Sun Blindness (11.61-.612)	Daytime scenario uses ≥ one Desert Board, and Weather is not Overcast (or Mud and Overcast).
(Intense) Heat Haze (11.62-.624)	Daytime scenario is set in North Africa (11.2), uses ≥ one Desert Board, and Weather is not Overcast (or Mud and Overcast).
Heavy, Very- or Extremely-Heavy Dust (11.73-732) Wind/Gust effects on Dust (11.76-.761)	Scenario uses *only* Desert Board(s), EC are Dry or Very Dry, and Steppe Terrain (13.2) is not in effect.
DYO Dust Table (11.701) Light/Moderate Dust (11.71-.72) Vehicle Dust (11.74) FFE Dust (11.75)	Scenario uses ≥ one Desert Board, and EC are Dry or Very Dry [EXC: Very Dry *only*, if Steppe Terrain is in effect].
Desert Mud (11.8)	Scenario is set in an Arid Land (see 11.2), uses *only* Desert Board(s), and Mud is in effect (11.2; 11.4).

F11.2 ARID WEATHER CHART △

DR	April	May-Sept	Oct,Nov	Dec-March
2	Mud	Clear	Mud	Clear & Gusty
3	Clear & Gusty	Clear & Gusty	Clear & Gusty	Clear & Gusty
4	Clear & Gusty	Clear	Clear	Clear
5	Clear	Clear & Gusty	Clear	Clear
6	Clear	Clear	Clear	Clear & Gusty
7	Clear & Gusty	Clear	Clear	Overcast
8	Clear	Clear	Clear & Gusty	Overcast
9	Clear	Clear & Gusty	Overcast	Mud
10	Overcast	Clear	Overcast	Mud & Overcast
11	Overcast	Clear	Clear	Mud & Overcast
12	Mud & Overcast	Overcast	Mud & Overcast	Mud & Overcast

F11.3 TIME OF DAY TABLE △

dr	Result	Effect
1	Early Morning	* Sun Blindness (11.611) is in effect. If the scenario is set in Nov-April, Mist (E3.32) is also in effect. EC are automatically Moist (or wetter); 11.6111.
2	Mid Morning	*† Intense Heat Haze (11.621) is in effect if the scenario is set in May-Sept. Otherwise, Heat Haze (11.62) is in effect.
3	Midday	*† Intense Heat Haze (11.621) is in effect.
4	Mid Afternoon	*† Heat Haze (11.62) is in effect.
5	Late Afternoon	* Sun Blindness (11.612) is in effect.
6	Night (other)	Section E1 (or "None", if both players agree) is in effect.

* "None" in effect if Weather is Overcast (or Mud & Overcast).
† "None" in effect if scenario is *not* set in North Africa (11.2).

F11.4 ARID EC CHART △

dr	EC	EC DRM/drm	Month	drm
≦ 1	Mud	−3	Dec-March	−1
2	Wet	−2	April-Sept	+3
3	Moist	−1		
4	Moderate	0		
5	Dry	+1		
≥ 6	Very Dry	+2		

F11.5 ARID WIND FORCE TABLE △

dr	Wind Force	Result
1	No Wind	No Wind Direction DRM
2-5	Mild Breeze	Wind Direction DRM & Dispersed Smoke
6	Heavy Wind	Automatic Spread Downwind; None Upwind

F11.701 DYO DUST TABLE △

Final dr	Density	drm
≦ 5	None	+1 If Mild Breeze is in effect.
6-7	Light (11.71)	+2 If Heavy Wind is in effect.
8-9	Moderate (11.72)	+3 Per each Bombardment (C1.8) available in the scenario.
≥ 10	Heavy* (11.73)	

* [EXC: Moderate, if Steppe Terrain (13.2) is in effect].

G. PTO TERRAIN CHART

Terrain	Example (Hex Terrain Type)	LOS Obstacle /Hindrance	TEM/Indirect†	MF ENTRANCE COST			MP ENTRANCE COST					Kindle # /Spread #	Fortifiable	Notes
				Infantry	Cavalry	Horse-Drawn	Motor-cycle	Armored Car	Fully Tracked	Halftrack	Truck			
2. Light Jungle d	35B4 (Woods)	Two-Level	+1/−1	2 pRt	4 CpR	ALL B*DR	NA PR	ALL B*DR	ALL/Z B*DRt	ALL B*DR	ALL B*DR	12/12	Yes g	§Woods *If not using road or VBM (or TB if fully tracked)
2.2 Dense Jungle dmn	35B4 (Woods)	■ Two-Level	+2/−1	2 pRst$	NA CpRS	NA DR	NA PR	NA DR	ALL/Z a B*DRt	NA DR	NA DR	12/12	Yes g	§Woods *If not using road/TB; +2 DRM unless dozing
3. Bamboo dmn	35P8 (Brush)	■ One-Level	+1*/−1	M jpst$	NA CpS	NA	NA	NA	ALL/Z a B***DRt	NA	NA	10/10**	No Wire/ Entrench. g	§Dense Jungle *−1 vs DC/HE; see G3.3 **EC DRM×2 ***If not using road/TB; +2 DRM unless dozing
4. Palm Trees	35O6 (Orchard)	■ One-Level* or Hindrance**	0	1	1	1	3 R	3 R	1 R	1 R	4 R	11/11	Yes	§In-Season Orchard *To higher LOS **To same-level LOS at Palm Trees' Base Level
5. Hut [Collapsed k]	35P6 (> 1 Single-Story Wood Bldg)	One- [Normal-] Level Hindrance	+1 [0]	2 [2]	NA [2]	NA [NA]	NA [NA P]	4 [4 B]	2 [2]	2 [2]	NA [5 B]	6/7	Mines Only*	§Wooden Single Story Bldg [§Hut but not Bldg] *[Mines/Wire *or* Panjis]
6. Kunai dn	35O8 (Grain)	Hindrance	0	2	2	2	4	4	2	2	6	9/8	Yes g	§Brush
7. Swamp n	35O10 (Marsh adjacent to Jungle)	Two-Level (but no Hindrance)	+1*/−1	ALL @	ALL	NA	NA	NA	NA**	NA	NA**	—	No	§Marsh *DC/ordnance-HE FP halved; see G7.2 **Unless amphibious; see G7.3
8.11 Drained Paddy	Overlay "RP"	—	+1q/0	1 c	1 c	NA*	3 cJ	NA*	1 c	NA*	NA*	—	Yes	*OG COT if entering via breach; G8.8
8.12 Irrigated Paddy	Overlay "RP"	—	{+1q[+2q]/+1}	3 cj	3 Cc	NA	NA	NA	4 B*c	NA	NA	—	Mines/Wire *or* Panjis	{DC/HE FP halved; see G8.12} {vs HE; G8.5} *Mud & +2 Bog DRM
8.13 In-Season Paddy E	Overlay "RP"	■ Hindrance*	+1q/0	1½ c	1½ c	NA**	4 cJ	NA**	1 c	NA**	NA**	10/6	Yes	*§Grain (halved; FRD) **Grain COT if entering via breach; G8.8
8.21 Paddy Bank	Counter Overlay "RP"	—	0	[1*j] {1+COT}	[1 C] {1+COT}	[NA] {NA}	[3 J] {3+COT J}	[NA] {NA}	[NA] {1+COT}	[NA] {NA}	[NA] {NA}	—	No	[Onto Bank counter] *Haz. Move. applies {Across Bank hexside *not* onto Bank counter}
9. Panjis	Counter	—	DOT	COT* [1***j]	COT Ce [1]	COT ii [NA]	COT e [NA]	COT ii [NA]	COT ii [1**]	COT ii [NA]	COT ii [NA]	—	"Beneath" only	*Panji MC possible **NA unless AFV/dozer [Above to beneath or vice-versa] ***Advance *off* NA

Terrain listed in red is Concealment Terrain.

Terrain shown underscored confers −1 Rally DRM.

†: Indirect Fire TEM is listed following "/" only if different from Direct Fire TEM.
*,**,***: See Notes Column
■: Whole hex affects LOS (Inherent Terrain; B.6).
$: Stacking limit two if no road; G2.2 & G3.1.
§: Except as specified otherwise in rules, treat as the terrain type indicated by the symbol.
@: APh entry NA.
a: Tankette/Carrier entry NA; G2.21 & G3.1.
B: Requires Bog DR to enter/change-VCA-within unless on road.
C: Cavalry may not Charge/Gallop in Jungle/Bamboo (even along path; G2.4) [EXC: Gallop allowed along road]. IN Irrigated Paddy (G8.12), along Paddy Bank (G8.2112), or onto/off-of non-hidden Panjis (G9.422).
c: COT IN Paddy (plus cost to cross Bank if applicable)
COT: Cost of Terrain; B.2
D: All MP penalties for entering hex that contains wreck/vehicle, or for changing VCA, are doubled.
d: Special rules for Detection apply; see G.4. +2 Recovery drm can apply; see G.5. Ambush terrain (+1 ATTACKER drm); see G.6.
DOT: Dependent on other terrain in hex.
E: Concealment Terrain only for Infantry/Fortifications/Emplaced-Guns; G8.13.
e: Eliminated (and Rider must Bail out) if entering onto Panji counter across its covered hexside [EXC: Cavalry expending 11 MF and not Galloping/Charging]. G9.422.
g: Set up and revealed as if at night; see G2.
H: Immobilized if entering onto Panji counter across its covered hexside, unless it is a full-tracked AFV/dozer (G9.42); VCA change NA on Panji counter (G9.52).
J: Sidecar NA.
j: Manhandling NA (G3.2 [EXC: via path]; G8.12 [EXC: boat]; G8.21 [EXC: cycle]; G9.5).
k: Concealment Terrain only for Infantry/Emplaced-Guns; G5.51.
M: Requires Minimum Move, Low Crawl or Advance vs Difficult Terrain; G3.2.
m: Mortar fire NA from, and Bypass NA in, this terrain; G2.212, G2.24, G3.1.
n: FG restrictions apply; see G.3.
P: May be Pushed.
p: Or per path cost if crossing path hexside (for Bamboo, see also G3.2).
q: Vs target IN Paddy. Reduce TEM by 1 vs LOF from higher elevation/across non-bank hexside of target Location; G8.3
R: Or per road cost if crossing road hexside.
s: Straying may be possible even in daytime; G2.22 & G3.21.
t: Or per Trail Break cost if crossing TB hexside (for Bamboo, see also G3.2).
Z: Or may use half of MP allotment at greater Bog risk.

G8.1 RICE PADDY STATE △

Final dr	State	drm	
≤ 2	In-Season	−2	EC are Dry or Very Dry
3-4	Drained	−1	EC are Moderate
≥ 5	Irrigated	+2	EC are Wet/Overcast/Mud

G1. JAPANESE CAPABILITIES CHART

CREW (BPV)	LG	CLASS	SQUAD	BPV	HS	BPV	ORDNANCE TH# Color OBA ACCESS	HoB DRM	SMOKE GRENADES	MISCELLANEOUS
	4.5	E	4²-4-8 *3²-4-8	16	2-3-8⁸	7	Black 5B/2R	+4	SMOKE	* Reduced Strength (G1.1; G1.3) • Disruption NA (G1.2) • SMC PTC/Pin/break NA (G1.4) • Ldr: Replace NA; Cas MC=elim; ML/rally/berserk as "Commissar" (G1.41) • T-H Heroes (G1.421) & ATMM (G1.4231) • Banzai Charge (G1.5) • E & 1 Stealthy, C & Banzai Lax (G1.6) • ATR/MMG/HMG B# penalty (G1.611) • NA: PAATC; RtPh Surrender; Encircled lower ML (G1.62) • LLMC=LLTC if unbroken; Leader Creation NA (G1.62) • Massacre allowed; Escape NA; −1 Interrog DRM (G1.621) • −2 Concealment drm & enemy +2 Search drm (G1.63) • Hand-to-Hand CC & Hara-Kiri (G1.64-.641)
2-2-8 (10) *1-2-8		1	4¹-4-7 *3¹-4-7	13	2-3-7⁷	6				
1-2-7⁸ (8)		2	3-4-7 *2-3-7	10	1-3-7⁶	4				
		C	3-3-6 *1-2-6	6	1-2-6⁵	2				

Broken Morale Level is listed as superscript to Morale Level

G1.421 TANK-HUNTER HERO CREATION

Japanese Infantry Squad/HS only △

Attempt allowed:*
- During creating MMC's MPh, provided MMC is within 8 MF of, and has LOS to, enemy AFV;
- At start of creating MMC's APh, provided MMC is ADJACENT to enemy AFV;
- During enemy MPh, provided MMC is able to use CC Reaction Fire vs enemy AFV;
- At start of CCPh, provided MMC is DEFENDER in same Location as enemy AFV.

* Attempt NA if MMC not armed and in Good Order, or if marked with Prep/Bounding/First/Final Fire or Pin/TI counter.

Successful Creation: Final dr ≤ 3 Original 6 pins MMC unless making Banzai Charge

drm:
+2 If Conscript
+1 If HS
−2 If MMC possesses DC it will give to T-H Hero

PTO DATE-DEPENDENT RULES

Date	Effect
6/42+	No Quarter in effect, and Mopping Up NA, for both sides; G1.621
1944+	Trip Flares available to U.S. Scenario Defender; G.8
1944+	Tank-Hunter Heroes may use HIP; 1.422
1944+	No drm to T-H Hero ATMM Check dr; G1.4231
1944+	Non-Russian Interrogating Japanese MMC receives −1 DRM; 1.621
1945	Japanese may use A-T Set DC vs non-Russian; 1.6121

G1.4231 TANK-HUNTER HERO ATMM △

Available on Final dr of ≤ 3;
Original 6 dr does not Pin T-H Hero

drm:
+1 Scenario is pre-1944

G10.4 ANIMAL-PACK GUN VULNERABILITY TABLE △

Subsequent dr made if Mule is eliminated/Casualty-Reduced while Animal-Packing a Gun and/or Pack-TI.

Final dr	Result (only *Low Ammo* can apply if Gun is not loaded on Mule)
≤ 2	Gun is eliminated (or, if already unloaded, is marked with *Low Ammo* counter).
3	Unload Gun in its Malfunctioned state and mark with *Low Ammo* counter.*
4	Unload Gun and mark with *Low Ammo* counter.*
5	Unload Gun in its Malfunctioned state.*
6	Unload Gun.*

* Determine Gun's CA randomly. Gun and Mule (but not the crew) also become (or remain, along with the crew) Pack-TI [EXC: if Gun is unloaded into prohibited terrain (see 10.31 {10.62 for SW}), it is eliminated and Animal-Pack status is NA].

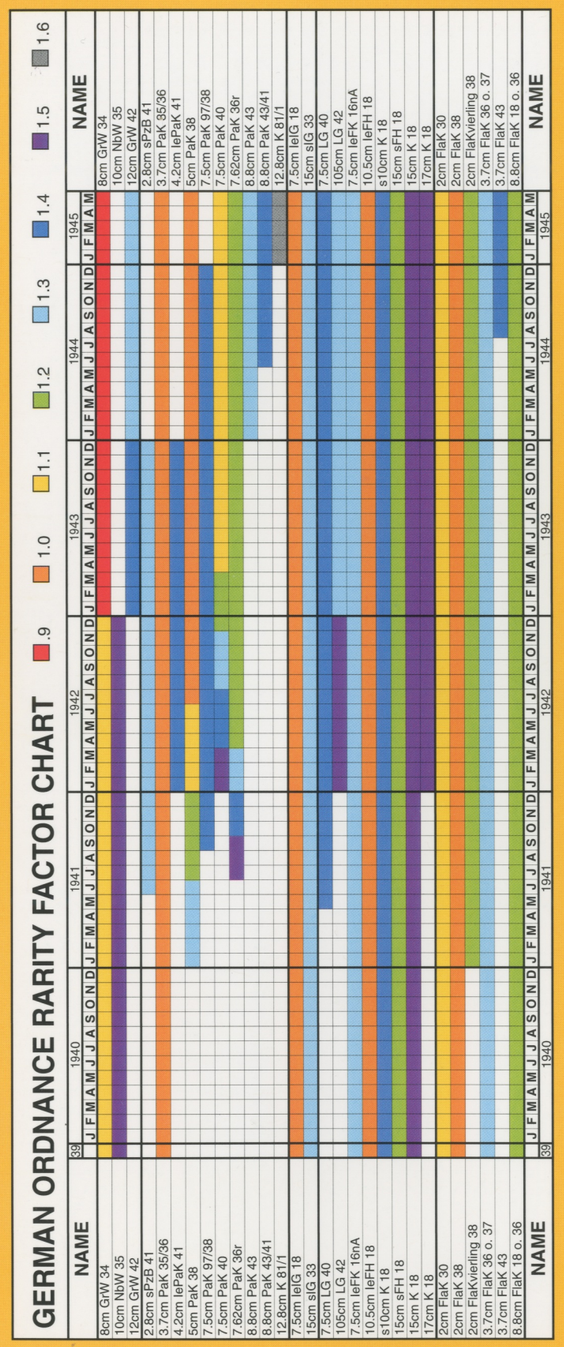
drm:
−1 If the attack eliminated the Mule.

GERMAN VEHICLE RARITY FACTOR CHART

.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6

| NAME | 39 | 1940 | | | | | | | | | | | | 1941 | | | | | | | | | | | | 1942 | | | | | | | | | | | | 1943 | | | | | | | | | | | | 1944 | | | | | | | | | | | | 1945 | | | | NAME |
|---|---|---

GERMAN ORDNANCE RARITY FACTOR CHART



ELR CHART

Time/ Nationality	thru 1938	1/39-8/39	9/39-12/40	1/41-6/41	7/41-12/41	1/42-6/42	7/42-12/42	1/43-6/43	7/43-12/43	1/44-6/44	7/44-12/44	45
German	—	—	3	3	4	4	4	4	4	3	3	2
Russian	—	—	2	2	2	2	3	3	3	3	4	4
American	—	—	—	2	2	2	3	3	4	3	4	4
British*	—	—	3	3	3	3	4	4	4	4	4	3
Italian	—	—	1	1	2	2	2	1	0	1	1	1
Japanese	3	3	3	4	4	4	4	4	4	4[1]	4[1]	4[2]
G.M.D.**	2[3]	1[3]	1[3]	1[3]	1[3]	1[3]	1[3]	1[3]	1[3]	2	2[4]	2[4]
French***	—	—	2[5]	3	3	2	2	3	3	3	3	3

* Includes all Commonwealth, Free French, and forces of other conquered countries fighting with British backing.

** Red Chinese use is NA.

*** Free French use British #.

[1] "3" vs Chinese

[2] "3" vs British/Chinese; "2" vs Russians

[3] Increase this # by one if G.M.D. Majority Squad Type (E.4) is Elite

[4] Increase this # by one of G.M.D. Majority Squad Type (E.4) is Elite and/or by one if scenario is set in Burma

[5] Increase this # by two if the scenario is set in Norway

Axis Minors are always two less than Germans *[EXC: Finns' ELR always equals Germans']*

Non-Italian Allied Minors are always 3

H1.43 ARMOR LEADER DRM CHART

Year	thru 38	39	40	41	42	43	44	45
German	—	+2	+1	0	-1	-1	-1	0
Russian	—	+3	+3	+2	+1	0	0	-1
British	—	—	+2	+1	0	-1	-1	-1
U.S.	—	—	—	+3	+3	+1	-1	-1
Italian	—	+3	+3	+2	+1	+1	0	0
French/Vichy[1]	—	—	+2	+2	+2	—	—	—
Allied Minor[1]	—	+3	+3	+3	—	—	—	—
Axis Minor	—	—	—	+2	+1	+1	0	0
Japanese	+2	+2	+2	+2	+1	+1	0	0
G.M.D.[2]	+3	+3	+3	+3	+3	+3	+2[3]	+1

[1] Allied Minors after 41 and Free French use British DRM

[2] Red Chinese use is NA

[3] Decrease this # by one if scenario is set in Burma

1.3 AVAILABILITY TABLE

Current RF	Availability DR	Armor Leader Available
1.6	≤ 2	10-2
1.5	3	9-2
1.4	4	9-1
1.3	5	8-1
1.2	6	—
1.1	7	—
1.0	8, 11	—
.9	9, 10, ≥ 12	—

SCHUERZEN & GYROSTABILIZER TABLE

dr/date	42	1-6/43	7-9/43	10-12/43	1-3/44	4-6/44	7-12/44	45
≤ 1	G	G	Sz G	Sz G	Sz G	Sz G	Sz G	Sz G
2	—	G	G	Sz G	Sz G	Sz G	Sz G	Sz G
3	—	—	—	—	Sz G	Sz G	Sz G	Sz G
4	—	—	—	—	—	Sz	Sz	Sz G
5	—	—	—	—	—	—	Sz	Sz
≥ 6	—	—	—	—	—	—	—	—

BONUS INFANTRY CHART

TOTAL INFANTRY MPV	1-0	51-50	101-100	151-150	201-200	251-250	301-300	351-350	401-400	451-450	500
ELR DIFFERENCE											
1	0	½	1	1½	2	2½	3	3½	4	4½	5
2	0	1	2	3	4	5	6	7	8	9	10
3	0	1½	3	4½	6	7½	9	10½	12	13½	15
4	0	2	4	6	8	10	12	14	16	18	20

RUSSIAN OBA AVAILABILITY CHART

YEAR		39-40	41	42	43	44-45
DR: / BPV:	2	120+ 59	100+ 49	150+ 82	100+ 65	150+ 105
	3	100+ 49	150+ 74	80+M 48*	150+ 98	150+ 105
	4	150+ 74	70+ 29	200+R 74	200+R 88	200+R 95
	5	70+ 29	70+ 29	80+M 48*	80+M 57*	80+M 62*
	6	120+ 59	120+ 59	120+ 66	120+ 78	120+ 84
	7	80+M 43*	80+M 43*	80+M 48*	80+M 57*	80+M 62*
	8	80+M 43*	80+M 43*	70+ 33	70+ 39	70+ 42
	9	80+M 43*	80+M 43*	120+R 49	120+R 59	120+R 63
	10	70+ 29	80+R 29	80+R 33	80+R 39	80+R 42
	11	70+ 29	120+R 44	70+ 33	80+M 57*	80+M 62*
	12	100+ 49	70+ 29	100+ 55	70+ 39	70+ 42
MAX. BPV:		74	74	82	98	105

M: Battalion mortar OBA (C1.22).

R: Rocket OBA (C1.9).

*: Can fire IR (see E1.93).

All Modules have Smoke capability (WP only by SSR) unless SSR denies it.

GERMAN OBA AVAILABILITY CHART

YEAR		39-40	41	42	43	44-45
DR: / BPV:	2	80+M 92*	80+M 92*	120+ 126	200+R 95	80+M 92*
	3	80+M 92*	80+M 92*	80+M 92*	120+ 126	80+M 92*
	4	150+ 158	150+ 158	150+ 158	150+ †158	200+R †95*
	5	150+ 158	150+ 158	150+ 158	150+ †158	120+ 126
	6	100+ 106*	100+ 106*	100+ 106*	100+ †106*	150+ †158
	7	80+M 92*	80+M 92*	80+M 92*	80+M 92*	100+ †106*
	8	80+M 92*	80+M 92*	80+M 92*	80+M 92*	80+M 92*
	9	100+ 106*	100+ 106*	100+ 106*	100+ †106*	150+R 79
	10	70+ 63	70+ 63	70+ 63	150+R 79	70+ 63
	11	70+ 63	70+ 63	150+R 79	70+ 63	80+M 92*
	12	70+ 63	150+R 79	70+ 63	70+ 63	70+ 63
MAX. BPV:		158	158	158	158	158

M: Battalion mortar OBA (C1.22).

R: Rocket OBA (C1.9).

*: Can fire IR (E1.93).

† : OP tank possibly available (1.46).

All Modules have Smoke capability (WP only by SSR) unless SSR denies it.

FINNISH OBA AVAILABILITY CHART

YEAR		39	40-41	42-44
DR: / BPV:	2	150+ 105	150+ 105	150+ 105
	3	150+ 105	150+ 105	150+ 105
	4	100+ 70	120+ 84	120+ 84
	5	80+M 62*	100+ 70	100+ 70
	6	80+M 62*	80+M 62*	80+M 62*
	7	80+M 62*	80+M 62*	80+M 62*
	8	80+M 62*	80+M 62*	70+ 42
	9	70+ 42	70+ 42	70+ 42
	10	70+ 42	70+ 42	80+M 62*
	11	70+ 42	70+ 42	120+ 84
	12	70+ 42	150+ 105	150+ 105
MAX. BPV:		105	105	105

M: Battalion mortar OBA (C1.22).

*: Can fire IR (see E1.93).

All Modules have Smoke capability (WP only by SSR) unless SSR denies it.

FORTIFICATION BPV:

TYPE:	BPV:
Foxhole	3/2/1[1]
Trench	7 (21 if an AT Trench)
Minefield	1 per IFT factor[2]
A-T Mine	3 per factor[3]
Roadblock	12[4]
Wire	5
Pillbox	(a+b+c) × 3[5]
Fortified Building or Tunnel	25[6]
HIP	4/3/2[7]
"?"	2
Booby Traps	10/20/30[8]
Sangar	½[9]
Trip Flares	1
Panji	2[10] per hexside
Caves	20/10[11]
Tetrahedron	3[12]
UDT	3[13]
Recon	10[14]
Ammo Dump	25[15]

[1]: For 3 squad, 2 squad. and 1 squad-capacity respectively

[2]: For DYO purposes, the maximum allowed per board in whole hexes is 120 factors. For Known minefields, see B28.45-.46; for Dummy minefields, see B28.47.

[3]: Includes Daisy Chain.

[4]: For DYO purposes, the maximum allowed per board in whole hexes is three.

[5]: Add the Capacity, CA DRM, and NCA DRM and multiply the sum by three.

[6]: Per building Location.

[7]: Per squad, HS, and SMC respectively. For DYO purposes, no more than 10% (FRU) of a side's Infantry squads (plus all SW/leaders stacked with them) may set up using HIP in a daytime scenario. See A12.34 for Gun HIP.

[8]: Level C/Level B/Level A (B28.9) respectively.

[9]: Only allowed per hex (F8.2)

[10]: The BPV of each Panji counter equals two points per Covered hexside on that counter.

[11]: Only the Japanese side may purchase caves. Each Cave counter has a BPV of 20 prior to 1944, and of 10 in 1944-45.

[12]: The BPV of other Beach Obstacles remains unchanged (hence a Tetrahedron-and-Wire counter's BPV is "8").

[13]: The U.S. (only) player may purchase as many UDT dr as he wishes *[EXC: purchase is NA both prior to 1944 and vs (versus) other than Japanese; G14.561]*. UDT Expenditures are recorded as Fortifications on the DYO Purchase Roster. Note that in DYO scenarios the terrain of Beach Obstacle hexes may change from OCEAN to Beach or vice-versa (due to the amphibious player's declaration of the tide as High or Low; G13.97); see G14.56.

[14]: See E1.23.

[15]: See E10.6.

1.82 LEADER EXCHANGE

DR	2	3	4	5	6	7	8	9	10	11	12
New Leader	10-3	10-2	9-2	9-1	8-1	8-1	8-0	8-0	—	—	6+1*
Finnish	10-1	10-0	9-1	9-0	8-0	8-0	—	—	—	—	—
Japanese	10-2	10-2	10-1	10-1	10-0	9-1	9-1	9-1	9-0	—	8+1**

* Replaces 8-0 (or any other leader, if no 8-0 present).

** Replaces 9-0 (or any other leader, if no 9-0 present).

ADVANCED SEQUENCE OF PLAY (rev.)

As listed in the Advanced Sequence of Play (ASOP), each phase is usually broken down into three main parts: the START, DURING, END and several discrete Steps. In each Step Number (e.g., "1.11A"), the player(s) involved is specified as **A** (ATTACKER), **D** (DEFENDER), or **B** (Both). The ASOP lists the official order of actions, even for those whose order is not given elsewhere (e.g. as per Steps 3.21A-3.22A, units that start the MPh berserk must move before non-berserk units); however, inconsequential violations of sequence should be tolerated in the spirit of good sportsmanship.

Should the order of actions given in the body of the rules conflict with the ASOP, the latter takes precedence. All activities in the same Step may be conducted in any order unless stated otherwise; if actions conflict, the ATTACKER goes first. Certain mutually exclusive actions may be listed in the same Step despite the fact that they cannot be conducted by the same unit—and many restrictions normally applicable to the listed actions are left unmentioned; in both cases, the normal rules pertaining to such actions still apply.

†Sniper Attacks/Checks are possible during this phase (A14.1; A14.4; E1.72; E1.76; G12.603; G14.261; *RB* SSR CG8, *ABTF* SSR CG8, *BRT* SSR CG8, *KGP* SSR CG 16, and *PB* SSR CG13).

PRE-GAME SEQUENCE

Follow in the order given. Not all will apply to every scenario. Items pertinent only to a DYO scenario are indented. Should the order of actions given in the body of the rules conflict with this Sequence, the latter takes precedence *except* in the case of a CG Refit Phase.

- Agree upon which (if any) optional/house rules will be in effect (A16, B10.211, C13.311, E1-E2, E4-E12, footnote A18/C5/C9, Incremental IFT, etc.).
- Determine who will play each side.
- Set up mapboard(s), and overlay(s) if any *[EXC: if a DYO scenario, do not set up OCEAN overlays yet; G13.91]*.
  - Determine Weather (E3 Temperate, F11.2 Arid, G16.2 Tropical, or O11.618 *RB*, P8.617, R9.62161).
- Ascertain Stream/River depth (B20.4/B21.122) and River current (B21.121); see also B16.6 (/G16.2, if DYO).
  - Determine Jungle type (G2.1).
  - Determine Rice Paddy state (G8.1).
  - Check to see if a Reef exists (G13.91)
  - Determine Beach Slope (G13.92), if applicable.
  - Determine Beach Width (G13.93), if applicable.
  - Check for purchase restrictions/ BPV alterations (G1.66-.664; G11.99; G12.9; G14.261-.262; G14.6; G14.69; G14.74; G15.3; G17.15-.152; G18.8-831).
  - Make DYO purchases (H1).
  - Calculate Battlefield Integrity Base (A16.1; G14.24).
- Choose Commissar (s) if/as allowed (A25.22; G18.31; O11.6206).
- Ascertain the special limitations/capabilities of all units and Guns, (see National Capabilities Chart and pertinent Vehicle/Ordnance Listing/Notes).
- Assign armor leaders (D3.41).
  - Set up all OCEAN overlays (G13.95).
- Check for the presence of all other terrain changes/conditions, and implement if/as required.
- Assemble all OBA Draw Piles (C1.211; G14.63).
- Record all Pre-Registered hexes (C1.73; E12.71), Offboard Observer hexes (C1.63) *[EXC: Aerial (E7.61): Shipboard (G14.68)]*, Barrage Blast-Area hexes (E12.2), and Aiming Hexes (E12.71).
- Record the Drop Point of each paratrooper Wing (E9.12) and the single hex-grain direction that will apply to all wings.
  - Determine Time of Day (F11.3), if applicable.
  - Determine Base NVR and Cloud Cover it applicable (E1.11; see also E1.15/E3.5/E3.71, BRT SSR CG10, KGP SSR CG5, PB SSR CG4, and R9.62162).
  - Determine EC (B25.5, F11.4, G16.3, or O11.618; see also E3.3, E3.4, E3.6, E3.713, E3.72, E3.73, E3.74, and/or F11.6111, R9.62163).
- First side (or the side "defending the beach"; G13.95) commences setup.
- ‡ Deploy squad(s) if/as allowed (A2.9; A5.5; A25.2; A25.61; A25.7; G14.311; G17.11; G18.2).
- ‡ Ascertain setup limitations (A2.9 {Offboard: A2.51; dm SW, A9.8}; Half-Hexes, A2.3; Stacking, A5.1, G2.2, G3.1; "?", A12.12; Crest, B20.91; HD, D4.221; Guns, B23.93, B30.111, C2.7; Motion, A2.52, D2.4; Seaborne Assaults, G14.21, G14.23; Reserves, P8.4, O11.6194b: see also the rules for specific Fortification types).
- ‡ Employ HIP if/as allowed (A12.3) {HS Equiv., A5.5; Fortifications, A12.33, E1.16, G.2; Emplaced Guns, A12.34, G3.4; Mines, B28.1 [Daisy Chain, B28.531, G1.613: Known, F.7-.7C; as Beach Obstacles, G14.501]; Field Phones, C1.23; Scenario Defender, E1.2; Trip Flares (E1.95); Japanese, G1.631-32 [T-H Hero, G1.422; A-T Set DC, G1.6121]; CCSS, G11.32-.321}.
- Scenario Defender records all allowed Bore Sighting (C6.41-42) *[EXC: NA in RB; SSR CG5; NA in KGP; SSR CG12]*.
- ‡ Attempt any HD Maneuver(s) (D4.22-.221).
- ‡ May claim Wall Advantage (B9.322).
- ‡ Note special DD tank/amphibian setup abilities (D16.8).
- Scenario Defender places No Move counters (E1.21).
- ‡ Scenario Attacker employs Cloaking (E1.4-.411) *[EXC: either/both side(s) in RB; O11.6194b]*.
- ‡ Record Dare-Death squads if Chinese side (G18.6).
- First side (or the side "defending the beach"; G13.95) completes setup.
- Scenario Attacker makes one Recon dr if allowed (E1.23).
  - Make all allowed *DYO* UDT dr (G13.96; G14.561).
  - Determine Tide (see G13.97), if applicable.
  - Determine Surf (G13.98; see also G13.448), if applicable.
- Second side commences setup (also repeat all Steps above marked with "‡").
- Second side completes setup.
- Record all allowed NOBA Ocean hexes (G14.62).
- Make all allowed *non-DYO* UDT dr (G14.561).
  - Determine Wind Force (B25.63, F11.5, G16.4 {see also G13.448}, or O11.6241, P9.62164) and Direction (B25.64).
  - Determine Fog Level (E3.31) and Density (E3.311), if applicable.
  - Determine Dust Density (F11.701; F11.77), if applicable.
- As determined by LOS/range, reveal hidden Fortifications (A12.33) *[EXC: E1.16; G.2]*, then place "?" if/as allowed (A12.12).
- Set up Sniper counters (DEFENDER first) (A14.2; *ABtF* SSR CG8, *BRT* SSR CG8, *KGP* SSR CG16, *PB* SSR CG13, and *RB* SSR CG8).
- Conduct all allowed Bombardments (C1.8-.823 or G14.7-.73).
- Scenario Attacker determines Creeping-Barrage timing (E12.72) if applicable, then conducts (E12.72-.74) all "pre-Game Turns" if/as required.
- Begin RPh of initial Player Turn.

1. RALLY PHASE

Only one action (attempt) allowed per unit per RPh [EXC: repairing > one SW/Gun (A9.72); leader rallying > one unit (A10.7); Recovery (A4.44) is not an action by a broken unit].

1.1 START OF RPh:

1.11A Roll for any provisional (SSR) reinforcements (including Air Support; E7.2). Set up, offboard, all forces due to enter in this Player Turn (A2.51-.52 {DD tanks, D16.8; Cloaking, E1.41; Gliders, E8.1; Parachutes, E9.1-.11; LC, G1.664/G14.23}).

1.12A Check for Wind Change (B25.65 {Blazing building collapse, B25.66; NVR change, E1.12; Civilian Interrogation, E2.4; Fog Level, E3.312; Rain/Falling-Snow intensity, E3.51/E3.71; Dust, F11.76-.77; Heavy Surf, G13.448; if DYO note also G16.2 footnotes}). During Gusts (B25.651), remove Vehicle Dust (F11.74) and Dispersed SMOKE, then flip remaining SMOKE counters to their Dispersed side *[EXC to both: SMOKE in cave; G11.8]*.

1.13B May Recombine Good Order HS if Good Order leader present, and/or Unarmed/Guard/Finn/Carrier HS without leader (A1.32). May place/remove Animal Pack counter(s) in *initial* RPh of Game Turn (G10.3) {Pack-TI; G10.11}. May (un)load Animal Pack Gun(s) if halfway through (Un)packing Period (G10.31).

1.14B May attempt to Recover SW/Gun(s) in same Location (A4.44; D6.31; G.5) {Ski-use dr; E4.21}.

1.2 DURING RPh:

1.21A May (attempt to) Deploy Good Order squad(s) if Good Order leader present, and/or Unarmed/Guard(s)/Finn(s)/Carrier HS/U.S.M.C. 7-6-8(s) without leader (A1.31; G17.11). Infantry MMC may attempt to Scrounge abandoned vehicle(s) or non-burning wreck(s) (D10.5); place Scrounged and TI markers.

1.22B May attempt to repair SW/Gun(s)/vehicular-armament (A9.72; D3.7). May Transfer SW/Gun(s)/Prisoner(s) (A4.431; A9.72; A13.33;A20.5; D3.7) {Ski-use dr; E4.21}.

1.23B May attempt to Rally broken unit(s) (A10.6); those with Commissar (A25.222)/Japanese leader, (G1.41) which fail to Rally are replaced or eliminated. First ATTACKER MMC Rally attempt (or first *two; ABtF* SSR CG14, *BRT* SSR CG14, *KGP* SSR CG18, and *RB* SSR CG17) may be Self-Rally/Field Promotion (A10.63; A18.11).

1.24A Determine final Drop Point for each Para Wing, then place all Sticks (i.e., Parachutes; E9.12) onboard in Aerial Locations.

1.3 END OF RPh:

1.31B Roll for Shocked/UK AFV recuperation (C7.42); remove or flip marker/AFV as appropriate. May/must remove DM markers from eligible broken units (A10.62).

1.32B May claim Wall Advantage (ATTACKER first).

2. PREP FIRE PHASE†

2.1 START OF PFPh:

2.11A Remove his Dispersed SMOKE (checking for any Napalm terrain-Blaze/weapon destruction; G17.41); then flip his SMOKE counters to their Dispersed side (A24.4). Leader(s)/MMC/CE AFV may attempt to fire Starshell(s) (E1.91-.921). Check for Vehicle Dust removal (F11.74).

2.12A May fire ordnance, SMOKE (C8.5-.51)/MTR, IR (E1.91; E1.93-.932), after designating Spotter (C9.3) if necessary; resolve ensuing WP NMC. May fire MOL Projector(s) (C13.51). Check for ensuing Flame(s) (A24.32; C13.57). Place Prep Fire or Gunflash counter(s) as required.

2.13A May attempt Radio Contact (C1.2; G.7) if necessary (C1.63; E12.77). If successful may (must, for FFE:C; C1.34) attempt (Sighting TC [E7.61] and) Battery Access (C1.21; G14.63); if successful may place AR (C1.3) and either SR (C1.3-.31) or Pre-Reg. FFE/IR (C1.731/E1.931), or must place rocket AR and FFE (C1.9) or remove or replace FFE:C (C1.34-.343; G14.671).

2.14A May (must, for a Creeping Barrage FFE) Correct/Convert or Cancel SR/FFE (C1.33-.337; C1.35-.4; E12.73-.74; E12.76; E12.771) *[EXC: rocket Correction is NA; C1.9]*.

2.15A May place OBA SMOKE (C1.71; E12.51)/IR (E1.91; E1.93-.932), resolving ensuing WP NMC (C1.71; C3.76; G14.65) and checking for ensuing Flame(s) (A24.32). Then resolve HE FFE (C1.5; C1.52-.56; G14.65), checking for shell-hole/Flame/rubble creation (B2.1/B6.331/B25.13/B24.11/G13.7), wire/roadblock/pillbox removal (B26.52/B29.5/B30.92/G14.56), minefield/panji removal/reduction (B28.62/G9.72/G14.56), and sangar/trip flare elimination (E1.952/F8.41). Check for Column Disbandment (E11.533) and Reverse Slopes (G14.66-.661).

2.2 DURING PFPh:

2.21A Infantry MMC may become TI and: Mop Up (A12.153) {Casualties; A12.154}, or; attempt to entrench (A25.21; B27.11; F.1B; G3.5; G13.3; G13.82), placing Labor counter if unsuccessful. Infantry may make Kindling Attempt(s) (B25.11; MMC requires leader who passes NTC); place Prep Fire counter on each unit involved.

2.22A May designate Spotter(s) for MTR(s) that had no original Spotter (C9.3). May fire non-Aerial, non-TI Good Order unit(s)/manned and functioning weapon(s) {Heavy AA fire; E7.52}, placing Prep Fire or Gunflash counter(s) as required; both sides resolve attacks. Infantry/Cavalry may declare Opportunity Fire; place Bounding Fire counter(s) (A7.25). Leader (/MMC/CE AFV, if a Starshell/IR has been fired in *no* previous Player Turn) may attempt to fire Starshell (E1.921). May destroy/malfunction/dismantle/reassemble SW/Gun(s) (A9.73; A9.8).

2.23A May (un)limber Gun(s) (C10.21; it and crew become TI if unlimbering).

2.3 END OF PFPh:

2.31A May change CA of Gun(s) presently able to fire without using Intensive Fire (C3.22). May designate/cancel AA mode of weapon(s) that can/do(es) thusly change CA (E7.5).

3. MOVEMENT PHASE†

The MPh Sequence of Play is expressed separately in terms of THE *MPh and of each moving unit's (or stack's) MPh; i.e., each moving unit has a* START, DURING *and* END *to* ITS *MPh within the overall context of* THE *MPh—usually followed by the START of another unit's (or stack's) MPh. However, the MPh of all units that* start THE *MPh berserk must be completed before any non-berserk unit may start* ITS *MPh, and the MPh of all non-berserk units that start* THE *MPh on the ground (i.e., non-Aerial) must be completed before any Glider/Parachute may start* ITS *MPh.*

3.1 START of THE MPh:

3.11A May designate new mortar Spotter for one eliminated or not in Good Order (C9.3).

3.12D Leader(s)/MMC/CE AFV may attempt to fire Starshell(s) (E1.91-.921).

3.13A Place all Gliders, blue side up (i.e, in Aerial Locations), onboard in their ILH (E8.2).

3.2 START OF ITS MPh:

3.21A Prepare to move any currently berserk unit/stack required to charge (A15.43); then go to Step 3.31A *[EXC: if no such berserk unit can charge, go to Step 3.22A]*.

3.22A Prepare to move any Good Order/Mobile ground unit/stack *[EXC: pinned Infantry; A7.8]* not marked with a Prep/Bounding Fire or TI counter (A4.1; D2.1). May drop possession of SW/Gun(s) (A4.43). Best leader may make Freedom of Movement dr if Scenario Defender (E1.21). Make Movement (E1.53-.531)/Straying (E1.53; G2.22; G3.21; G13.83) DR if necessary. Infantry may declare Double Time for two extra MF (A4.5; place CX counter), or Assault Movement (A4.61), Dash (A4.63), Sewer entry (B8.4) or Climbing (B11.4). Infantry/Cavalry may declare Human Wave (A13.62/A25.23/G18.61—Banzai Charge if Japanese Infantry; G1.5), or Swimming (E6), movement. Dare-Death Infantry may declare berserk status (G18.6). Cavalry (or Wagon) may declare Gallop for 8 (or 4) extra MF unless Cavalry/Horse (or Wagon) is CX (A13.36 or D12.4). Remove vehicle's Motion counter if it will expend MP/MF. Check for Column (E11.52)/Convoy (E11.2)/Platoon (D14.2) movement status. Onboard radioless AFV that will use non-Platoon movement takes NTC (D14.23) unless Recalled. Flail tank declares TB creation attempt in minefield hex it will enter (B28.7). Boat/Non-Aground LC in Heavy Surf makes any required (un)Beaching DR (G13.442/G13.4423). Crew abandons or enters vehicle (D5.41-.42). Lastly, go to Step 3.32A *[EXC: if no ground unit can/wishes to declare/conduct any Step 3.32A action, go to Step 3.23A if an Aerial Glider/Parachute exists or to Step 3.5 otherwise]*.

3.23A Prepare to conduct Glider/Parachute movement; go to Step 3.37D *[EXC: if no Aerial Glider exists, go to Step 3.34A]*.

3.3 DURING ITS MPh:

3.31A Berserk unit charges if so required (A15.43-.431; A15.45; G13.491);then go to Step 3.35D.

3.32A May move that non-TI Good Order/Mobile (or must charge with that voluntarily berserk Dare-Death) ground unit/stack after making any required Sewer dr (B8.41) or Mechanical Reliability (D2.51 {Stall}), Bog Removal (D8.3; G12.211-.212) and/or Movement/Straying (E1.53-.531; G2.22; G3.21; G13.83) DR. May conduct Infantry OVR (A4.15-.152). Infantry may declare Double Time for one extra MF (A4.5; place CX counter), and/or make Manhandling DR (C10.3, E5.2; Pushing unit and Gun/Boat become TI—place Labor counter if unsuccessful). Infantry may Place (A23.3) or Set DC (A23.7; roll US#). Personnel (etc., for LC; G12.12) may mount/dismount horse (A13.31) or vehicle (D6.4-.5; D12.2; D15.41; G12.4-.45; G13.443). Personnel may attempt SW/Gun Recovery (A4.44) {Ski-use dr; E4.21} and/or drop possession of SW/Gun(s)/Prisoner(s) (A4.43; A20.53). May *declare* attempt to Clear rubble (B24.71), wire (B24.73), mines (B24.74), Set DC (B24.75), roadblock (B24.76), Path (G2.7), Panji Covered-hexside (G9.71), or non-Factory Debris (O1.5); unit becomes TI. May attempt to Clear Flame (B24.72; unit becomes TI—place Labor counter if unsuccessful). May hook up Gun (C10.11; it, Personnel and vehicle become TI). May unhook Gun (C10.12; it and Infantry become TI). May attempt to place SMOKE Grenades (A24.1; D13.35) or use Smoke Dispenser (D13); resolve ensuing WP NMC (A24.31) and check for ensuing Flame (A24.32). May claim Wall Advantage (B9.322). Japanese Infantry squad/HS within 8 MF and in LOS of enemy AFV may attempt to create T-H Hero (G1.421 {DC Hero; G1.424}). Cavalry may declare Gallop (for 4 extra MF) unless Horse is CX (A13.36), and may declare Charge while ≥ 3 hexes from and in LOS of target (A13.6; resolve in target Location). Make Bog DR as required (D8.2-.23). Recalled vehicle must (attempt to) exit (D5.341; G14.232 *[EXC: G14.33]*). Vehicle may use Bounding First Fire (C5.3; C8.6; D3.3; D7.1; E7.51-.512; G12.5). Vehicle may declare Wreck Removal (D10.42), attempt ESB-(D2.5)/HD-Maneuver-(D4.22), and/or place *or* remove CE counter (D5.33). May conduct Armored Assault (D9.31). Wagon/Motorcycle resolves any required Wreck Check dr (D12.4/D15.46). Units using Impulse movement expend MF/MP in their Impulse before receiving First Fire. Check for "?" loss (A12.14-.15; A12.2; A12.33; A12.41-.42) and Column Disbandment (E11.531). Infantry resolves any required Lost dr (B8.41), Falling DR (B11.41) or Swimming TC/MC (E6.1/E6.5). Place appropriate Climb counter for Infantry that successfully ascends or descends (B11.43). Resolve Panji MC (G9.41). May don/remove Skis (E4.2). Check for creation of Vehicle Dust (F11.74-.741). DD tank may drop screens (D16.11). May (un)Beach Boat/LC (E5.23/G12.3). LC might run Aground (G12.21; G13.446). Check for Swamping (G13.4222) and/or Heavy-Surf Swamping/Immobilization/(un)Beaching/Broaching (G13.44-.4423). Infantry/Cavalry Wading in Heavy Surf become CX (G13.447). Lastly, go to Step 3.35D.

3.33A Aerial Glider takes Evasive Action if necessary (E8.211); then go to Step 3.37D.

3.34A All Aerial Parachutes drift (E9.2); then go to Step 3.38D *[EXC: if no Aerial Parachute exists, go to Step 3.5]*.

3.35D During Steps 3.31/3.32 resolve, vs moving ground unit/stack (only), each Residual FP (A8.22; A9.22), FFE (A24.31; C1.51-.53; C1.55-.56; C1.72; C1.9; G12.5; G14.65-.661) and/or minefield (B28.41-.412; B28.42-.52; B28.531; G14.53) attack as it occurs.

Leader(s) (/MMC/CE AFV, if a Starshell/IR has been fired in *no* previous Player Turn) may attempt to fire Starshell(s) (E1.921). Check for Column Disbandment (E11.532)/trip flare activation (G.8). Lastly, go to Step 3.36D.

3.36D During Steps 3.31/3.32, may conduct First Fire (A8.1)/Subsequent First Fire (A8.3)/FPF (A8.31) vs moving ground unit/stack {Snap Shot, A8.15; Fire Lane, A9.22; Thrown DC, A23.6; Reaction Fire, D7.2; Sighting TC and FB/DB Ground Support, E7.3-.4/G17.4-.42}. Place Residual FP (A8.2; A9.22; G11.82), First/Final/Intensive/No Fire or Gunflash counter(s) as required. Place MOL-Projector Smoke and check for any ensuing Flame (C13.57-.58). Japanese squad/HS in CC Reaction Fire position may attempt to create T-H Hero (G1.421). DEFENDER vehicle may attempt Motion (D2.401)/Smoke Dispenser use (D13.2). ATTACKER may conduct Light AA fire (E7.51) vs attacking FB/DB, placing AA/Prep/Bounding Fire or Gunflash counter(s) as required (E7.5). Check for Column Disbandment (E11.532). Lastly, go to Step 3.41A.

3.37D May conduct Light AA First/Subsequent First Fire vs Aerial Glider (E7.51-.512, E8.21-.211), placing AA/First/Final Fire/Gunflash counter(s) as required; then go to Step 3.33A (or to Step 3.42A if no Light AA fire occurred).

3.38D May conduct First/Subsequent First Fire vs all Aerial Parachutes (Small Arms/Light AA only; E9.3-.33, E7.5-.512)), placing AA/First/Final Fire/Gunflash counter(s) as required; then go to Step 3.43A.

3.4 END OF ITS MPh:

3.41A Non-Bypassing Good Order Infantry/Cavalry may Search (A12.152; E1.95/1.953; G1.63) {Casualties; A12.154}; becomes TI—Defensive First/Subsequent First/FPF allowed. Broken Infantry in Bypass enter that obstacle (A4.32). Sewer unit/stack makes emergence dr (B8.42). Unarmed unit(s) may attempt to Scrounge Small Arms (A20.552; G17.14). Place Motion counter on qualifying vehicle(s) (D2.4) or expend Stop MP. Place CC counter if necessary. Lastly, go to Step 3.21A.

3.42A Glider lands (E8.211 {Landing DR, E8.22; Crash dr, E8.23}); then go to Step 3.23A.

3.43A All non-German 5/8" Parachutes move one hex; *all* Parachutes then land, and all 1/2" Parachutes are flipped over (E9.4; {NMC/NTC, E9.42}); then go to Step 3.5.

3.5 END of THE MPh:

3.51A Each vehicle unable to leave, and each Glider/Parachute that landed in, terrain Blaze Location is eliminated (B25.4; E8.232; E9.42). Resolve Wreck Removal (D10.42). Air-Dropped pre-1942 German *MMC* may attempt to locate arms canisters (E9.7).

3.52A Berserk unit(s) with no Known enemy in LOS return(s) to Good Order (A15.46).

3.53B Remove all Residual FP (A8.2; A9.223) and 1/2" SMOKE (A24.11 *[EXC: G11.85]*) counters.

4. DEFENSIVE FIRE PHASE†

4.1 START OF DFPh:

4.11D May fire ordnance Dispersed SMOKE (C8.5)/MTR IR (E1.91; E1.93-.932). Resolve ensuing WP (A24.31) NMC. May fire MOL-Projector(s) (C13.51). Check for ensuing Flame(s) (A24.32; C13.57). Place Final/Intensive/No Fire or Gunflash counter(s) as required.

4.12D May attempt Radio Contact (C1.2; G.7) if necessary (C1.63; E12.77). If successful may (must, for FFE:C; C1.34) attempt (Sighting TC [E7.61] and) Battery Access (C1.21; G14.63); if successful may place AR (C1.3) and either SR (C1.3-.31) or Pre-Reg. FFE/IR (C1.731/E1.931), or must place rocket AR and FFE (C1.9) or remove or replace FFE:C (C1.34-.343; G14.671).

4.13D May (must, for Creeping Barrage recorded as "FFE:1-2"; E12.731) Correct/Convert or Cancel SR/FFE (C1.33-.337; C1.35-.4; E12.74; E12.771) *[EXC: any such action of Creeping Barrage recorded as "FFE:1" is NA; rocket Correction is NA (C1.9)]*.

4.14D May place OBA Dispersed SMOKE (C1.71; E12.51)/IR (E1.91; E1.93-.932), resolving ensuing WP NMC (C1.71; C3.76; G14.65) and checking for ensuing Flame(s) (A24.32). Then resolve HE FFE (C1.5; C1.52-.56; G14.65), checking for shellhole/Flame/rubble creation (B2.1/B6.33/B25.13/B24.11/G13.7), wire/roadblock/pillbox removal (B26.52/B29.5/B30.92/G14.56), minefield/panji removal/reduction (B28.62/G9.72/G14.56), and sangar/trip flare elimination (E1.952/F8.41). Check for Column Disbandment (E11.533) and Reverse Slopes (G14.66-.661).

4.2 DURING DFPh:

4.21D May designate Spotter(s) for MTR(s) that had no original Spotter (C9.3). May fire unit(s) *not* marked with First or Final Fire counter {Heavy AA fire; E7.52}, and/or any marked with First Fire counter (as Final Fire at adjacent/same hex target; A8.4), placing AA/Final/Intensive/No Fire or Gunflash counter(s) as required; both sides resolve such attacks. Leader(s) (/MMC/CE AFV, if a Starshell/IR has been fired in *no* previous Player Turn) may attempt to fire Starshell(s) (E1.921). May conduct FB/DB Sighting TC (E7.3) and Ground Support (E7.4; G17.4-.42); ATTACKER may conduct Light AA fire (E7.51-.512), placing AA/Prep/Bounding Fire (E7.5) or Gunflash counter(s) as required. May *declare* attempt to Clear wire (B24.73), Set DC (B24.75), road block (B24.76), Path (G2.7), or Panji Covered hexside (G9.71). May attempt to Clear Flame(s) (B24.72-.721; unit becomes TI—place Labor counter if unsuccessful). Check for Column Disbandment (E11.533). May destroy/malfunction/dismantle/reassemble SW/Gun(s) (A9.73; A9.8).

4.22D May (un)limber Gun(s) (C10.21; it and crew become TI if unlimbering).

4.3 END of DFPh:

4.31D May change CA of Gun(s) presently able to fire without using Intensive Fire (C3.22). May designate/cancel AA mode of weapon(s) that can/do(es) thusly change CA (E7.5).

4.32D In daytime scenario, remove all First and Final Fire counters (A3.4; E1.8).

5. ADVANCING FIRE PHASE†

5.1 START OF AFPh:

5.11B During Mild Breeze, place Drifting (i.e., gray) Dispersed SMOKE downwind of each Blaze, and of each white SMOKE, counter that has none (A24.61) *[EXC: NA in cave; G11.851]*.

5.12A May fire ordnance Dispersed WP (C8.6); resolve ensuing NMC (A24.31) and check for ensuing Flame (A24.32).

5.13A During Gusts (B25.651), remove Dispersed SMOKE, then flip remaining SMOKE counters to Dispersed side *[EXC to both: NA in Cave; G11.8]*.

5.2 DURING AFPh:

5.21A Place all Glider contents *[EXC: vehicle/Gun and its PRC/Crew]* onboard (E8.4).

5.22A All unbroken ground (or sewer; B8.43) units/weapons not marked with Prep/Bounding/Intensive/No Fire or TI counter may fire, using halved FP for non-ordnance *[EXC: DC; Non-Motion FT; Opportunity Fire (A7.25)]*; qualified squad(s) may use Assault Fire (A7.36); ordnance uses TH Case(s) B/C *[EXC: Case B NA for Opportunity Fire; C5.2]*. May (un)limber Gun(s) (C10.21); it and crew become TI if unlimbering. Resolve Placed DC attack(s) (A23.4; C7.346).

5.23A Each berserk unit that eliminated all Known enemy units (at least one) in its Location with halved TPBF returns to Good Order (A15.46).

5.3 END OF AFPh:

5.31B Resolve Blaze Spread (B25.6; B25.651) every Player Turn *after* initial appearance.

5.32B Resolve Flame to Blaze Spread for each unpinned Flame (B25.15-.151).

5.33B Remove all Prep Fire, Intensive Fire, No Fire and Bounding Fire counters. If night scenario, also remove all First Fire, Final Fire and Gunflash counters (E1.8).

6. ROUT PHASE

ATTACKER first, then DEFENDER (A3.6).

6.1 START OF RtPh:

6.11B Unit(s) may Voluntarily Break (A10.41). Place DM counter on each non-DM unit/stack that must rout (A10.62).

6.12B Disrupted unit(s) in/ADJACENT to enemy Infantry/Cavalry Location (might) Surrender (A19.12) {Interrogation; E2.1}.

6.2 DURING RtPh:

6.21B Conduct all routs (A10.5-.52; A19.12; E1.54; G14.41); leader(s) may accompany routing unit(s) (A10.711). Routing unit(s) may don/remove Skis (E4.2). Broken Infantry in/ADJACENT to Known enemy Infantry/Cavalry might Surrender (A20.21/A20.3) {Interrogation; E2.1}. Check for Failure to Rout elimination (A10.5; A20.21). Resolve Interdiction (A10.53)/ Panji (G9.41) MC *[EXC: if using Low Crawl]*, and check for trip flare activation (E1.95), as enemy unit/stack routs. Resolve, vs routing unit/stack only, each FFE-(C1.51-.53 {C1.71-.72; C1.9; E12.5; G14.65-.661})/minefield (B28.41-.413) attack as it occurs. Check for Column Disbandment (E11.532).

6.3 END OF RtPh:

6.31B Eliminate all Infantry unable to leave terrain Blaze Location(s) (B25.4).

7. ADVANCE PHASE

7.1 START OF APh:

7.11A May Transfer SW/Gun(s)/Prisoner(s) (A4.431; A20.5) {Ski-use dr; E4.21}.

7.12A Japanese Infantry squad/HS ADJACENT to enemy AFV may attempt to create T-H Hero (G1.421).

7.13A Boat/Non-Aground LC in Heavy Surf makes any required (un)Beaching DR (G13.442/G13.4423).

7.2 DURING APh:

7.21A Good Order Infantry not pinned or TI may advance (A4.7 {PAATC, A11.6; vs Difficult Terrain = CX/Panji MC, A4.72/G9.41}). Climbing unit(s) may exchange Climb counter for CX counter if at proper level (B11.432). May don/remove Skis (E4.2). May place/remove CE counter(s) (D5.33). May claim Wall Advantage (B9.322). Sewer unit(s) may emerge (if allowed; B8.42) or advance into CC with adjacent sewer unit(s) (B8.44). Check for trip flare activation (E1.95).

7.22A Boat(s)/Amphibian(s)/Swimmer(s) might drift in Moderate/Heavy Current (B21.121/E5.23/E6.2); check for OCEAN drift in Heavy Surf (G13.444) *[EXC to all: Pier; G13.734]*.

7.23D Boat(s)/Amphibian(s)/Swimmer(s) might drift in Heavy Current (B21.121/E5.23/E6.2) *[EXC: Pier; G13.734]*.

7.24A May (un)Beach Boat(s) (E5.23). Boat/Non-Aground LC in Heavy Surf makes any required (un)Beaching DR (G13.442/G13.4423).

7.25B During Steps 7.21-.24 resolve, vs advancing/drifting unit/stack (only), each FFE (C1.51-.53 {C1.71-.72; C1.9; E12.5; G14.65-.661})/minefield (B28.41-.412; G14.53) attack as it occurs. Check for Drowning (E6.21) and Column Disbandment (E11.532).

7.26A All 5/8" Parachutes onboard are removed and replaced by their contents (E9.6).

8. CLOSE COMBAT PHASE

*Perform all Steps listed under **"... LOCATION'S CCPh"** in any one CC/Melee Location first, then in the next such Location, etc.*

8.1 START of LOCATION's CCPh:

8.11B Place onboard beneath a "?" all hidden items, then reveal Strength Factors of all concealed units (eliminating Dummies) (A11.19).

8.12B Resolve Ambush if *advance* into CC (not Melee) was into woods/building/jungle/bamboo/kunai (A11.4; G.6) and/or by/vs "?" (automatic ATTACKER Ambush for Street Fighting; A11.8) {night Ambush dr; E1.77}.

8.13D Japanese Infantry squad/HS in same Location with enemy AFV may attempt to create T-H Hero (G1.421).

8.14B Check for Sequential CC if vehicle(s)/Ambush/Prisoner(s) involved (A11.3); Prisoner(s) of broken Guard(s) may declare escape attempt(s) (A20.55). Infantry may declare attempt to capture escorted Abandoned vehicle(s) (A21.2).

8.15B May (must, if non-Disrupted/non-Guard broken Infantry; A11.16) declare Withdrawal(s) from *Melee* (ATTACKER first; A11.2), dropping possession of any SW/Gun(s) that would prevent Withdrawal (A4.43).

8.16B Declare each SMC's solo status or pair it with another SMC or MMC (A11.14)—ATTACKER first (A11.12).

8.2 DURING LOCATION's CCPh:

8.21B Declare first/next sequential CC attack (A11.3-.34) or, ATTACKER first (A11.12; G13.495), all simultaneous CC attacks if no sequential CC exists. Declare if Hand-to-Hand (A25.43; G1.64; G18.62; J2.31; SSR *RB*11) and/or Capture attempt (A11.52; A20.22). Reveal (A12.31) all units declared to be making/directing a CC attack (A11.19).

8.22B '44-45' German(s), or Japanese T-H Hero(es), may make ATMM dr (C13.7; G1.4231).

8.23B Japanese Personnel may attempt/commit Hara-Kiri (G1.641) vs CC Capture attempt.

8.24B Resolve that sequential CC attack, or all simultaneous CC attacks if no sequential CC exists. Successfully Withdrawing unit(s) enter(s) Accessible Location(s) (A11.21-.22); resolve, vs Withdrawing unit/stack (only), each FFE (C1.51-.53 {C1.71-.72; C1.9; E12.5; G14.65-.661})/minefield (B28.41-.412) attack as it occurs, and check for Column Disbandment (E11.533)/trip flare activation (E1.95)/Panji MC (G9.41). Berserk unit(s) that eliminated all Known enemy units (at least one) in Location return(s) to Good Order (A15.46). Lastly, go to Step 8.21B if further sequential CC can be declared.

8.25B May Interrogate new Prisoner(s) (E2.1; G1.621; G18.71).

8.3 END OF LOCATION's CCPh:

8.31B Automatic capture of unescorted abandoned vehicle(s) (A21.2). Flip/remove CC, or retain/remove Melee, counter as appropriate. Dare-Death Infantry remain beserk only if in Melee (G18.6).

8.4 END OF CCPh:

8.41B Declare and resolve (sequentially; ATTACKER first) all Aerial Combat (E7.22-.226).

8.42B Resolve all non-Flame Clearance attempts (B24.7; B28.7; G2.7; G9.71; O1.5); place Labor counter if unsuccessful (B24.8). Eliminate all Recovered tunnel entrances (B8.63).

8.43B Remove all TI *[EXC: Ammo Replenishment (E10.3); Animal-Pack (G10.11)]* and Pin counters. Flip each Stun counter to its +1 side (D5.34) *[EXC: cumulative Stuns (G12.111; G14.33)]*. Check for Ammo Replenishment (E10.3).

8.44A Place a "?" on his qualifying non-concealed, Good Order unit(s) or stack(s) (A12.12-.122; E1.32; E3.712; F11.601; G1.63; *ABtF* SSR CG12, *BRT* SSR CG11, *KGP* SSR CG11, *PB* SSR CG10, and *RB* SSR CG15).

8.45B If night, remove all Starshells (E1.923) and IR (E1.933), and all Acquisition not Illuminated by Blaze/Flame (E1.74).

AMMUNITION SHORTAGE CHART (SSR CG 17)

LEVEL	ORIGINAL DR FOR UNIT SUBSTITUTION (A19.131)	B#†	ELR LOSS DRM (9.6202)
One	12	0	+1
Two	12	-1	+2
Three	≥ 11	-1	+3
Four	≥ 11	-2*	+4
Five	≥ 10	**	+5

† SW/Vehicle/Gun B#s reduced by the indicated amount per A19.131

* No British SW/Gun repair attempts may be made during the CG Scenario (but may be done normally in the RePh). British may not use Intensive or Sustained Fire [EXC: OVR Prevention/FPF; C5.64, A8.31]. ATMM Check dr (see SSR ABtF 6) receive an additional +1 drm.

** All SW/Guns automatically malfunction after their first use. No British SW/Gun repair attempts may be made during the CG Scenario (but may be done normally in the RePh). British may not use Intensive or Sustained Fire [EXC: OVR Prevention/FPF; C5.64, A8.31]. ATMM Check dr (see SSR ABtF 6) receive an additional +2 drm.

BRITISH RG (A6, A18)

Retained Units (R9.071)

Purchased Units (R9.617)

Walking Wounded Holding Box (SSR CG19)



A Bridge Too Far

KG GRAEBNER (R23)

Retained Units (R9.071)

Purchased Units (R9.617)

KG HARDER (A5, A17)

Retained Units (R9.071)

Purchased Units (R9.617)

KG KNAUST (F0, M1, V0, GG1)

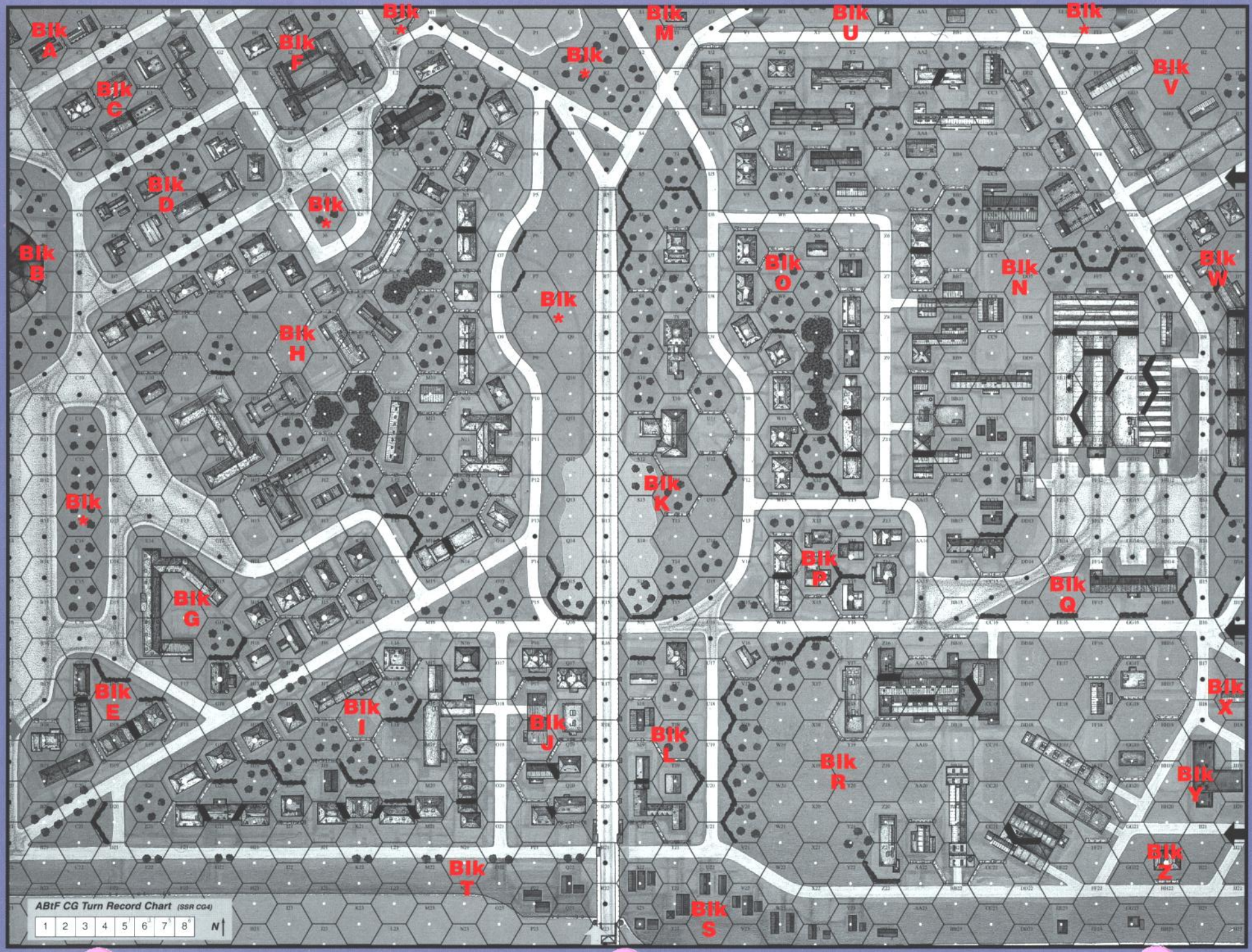
Retained Units (R9.071)

Purchased Units (R9.617)

KG BRINKMANN (JJ4, JJ15, JJ20)

Retained Units (R9.071)

Purchased Units (R9.617)


Blk A
Blk B
Blk C
Blk D
Blk E
Blk F
Blk G
Blk H
Blk I
Blk J
Blk K
Blk L
Blk M
Blk N
Blk O
Blk P
Blk Q
Blk R
Blk S
Blk T
Blk U
Blk V
Blk W
Blk X
Blk Y
Blk Z
Blk *
ABtF CG Turn Record Chart (SSR CG4)
1 2 3 4 5 6 7 8
N

Overrun Flowchart

Vehicle prepares to enter Defender's Location

- If the Location contains any Known enemy units, any OVR must be declared before entering
- In order to OVR, vehicle must not have Bounding First Fired (other than prior OVR)

Vehicle enters Defender's Location

- Only fully-tracked CT BU AFV may enter a Building (B23.41)
- Only BU AFV may enter a non-Collapsed Hut (G5.4)
- OVR NA from Bypass (A12.42) *[EXC: vs Bypass units]*, via Reverse Movement (D7.13), or in Lumberyard hex (B23.211)

Expend MP for entry: OVR: 1/4 printed MP (FRU [D7.1]) + COT
Non-OVR: COT

Concealed Personnel in the Location must* either:

- Drop Concealment, *or*
- Take one combined PAATC using the lowest Morale in the stack (A12.41). Leadership applies.
  - PAATC NA for SMC, Beserk, Fanatic, IJA
  - 1PAATC if Inexperienced, non-Elite GMD Chinese, non-Elite Italians, Allied/Axis Minors
  - Dummy stacks use ML 7 for PAATC as printed on ? counter

  Pass: retain Concealment
  Fail: lose Concealment and Pinned (A11.6)

? 7 morale

* Concealment is retained without a PAATC if the entering vehicle is "broken" (A12.1) or uses Bypass or a Woods-Road (A12.41).

Terrain Effects Check for:

- ❑ Bog (D8.2)
- ❑ Rubble cdr ≤ 0 on Bog Check DR (-1 drm each for Wooden Building, Single Story House) (B23.41)
- ❑ Fall into Cellar—original 6 on Bog Check cdr
- ❑ Hut Collapse—automatic if AFV enters (G5.4)—All units take PTC (G5.5)
- ❑ Place partial Trail Break (B13.421) in Woods, Jungle, or Bamboo if Fully-Tracked AFV is still Mobile

Defensive First Fire is allowed vs this MP expenditure, DFF from outside the vehicle's hex is performed normally. In-hex DFF options vary depending on whether an OVR was declared upon entry.

No Overrun

Defensive Fire Options with no OVR:

	CC RF [b]	IFT [a,q]	LATW [c,d,q]	Gun [d,i,q]
Unmarked	✔[h]	✔	✔	✔
First Fired	✔[g]	✔	✔[k]	✔
Final/Intensive Fired [l]	✔[g]	✔	No	No
Pinned	No	✔	✔[f]	✔[f]

If there were no Known enemy units in the Location when the Vehicle entered, it may now declare an OVR if still Mobile with sufficient MP. Defensive First Fire is allowed vs this second MP expenditure. DFF from outside the vehicle's hex is performed normally.

Overrun

No Overrun

Defensive Fire Options Before OVR:

	CC RF	IFT [a]	LATW [c,d]	Gun [d,i,o]
Unmarked	No	✔	✔	✔
First Fired	No	✔	✔[k]	✔[j]
Final/Intensive Fired [l]	No	✔	No	✔[j]
Pinned	No	✔	✔[f]	✔[f]

Vehicle Elim or Immob (including Shock, Stun, and crew K/KIA/Break) does not prevent an already-announced OVR but does halve its FP. Pin results and effects vs Passengers/Riders (only) do not affect OVR.

Vehicular Bounding First Fire Options

	Stopped	Non-Stopped[u]
MG/IFE/Passengers of CE Armored HT [r,s]	3/2 FP	3/4 FP
Riders/non-BU Passengers not in armored HT [r,s,t]	3/4 FP	3/8 FP
FT	Full FP	1/2 FP

Ordnance:
- TH Case E and C-C4 as appropriate (C5.5)
- Area Target Type NA (C3.33)

BOUNDING FIRE Case C TH

BFF From Bypass

- Only turreted weapons pointing toward side TCA are available (D2.32)
- Case A applies *[EXC: Stabilized Gun firing at Acquired Target or CMG/IFE firing at same target as last fired on (D2.321)]*

BFF Footnotes:

r – TPBF (A7.21)
s – Bounding Fire [D3.31]
t – Mounted Fire [D6.1]
u – Motion Fire [D2.42]

Resolve OVR vs unarmored units (including Vulnerable PRC) in the location

OVR FP = Base 4 (AFV with usable MA not MG/FT/IFE/ATR/MTR) *or*
2 (other AFV, unarmored bulldozer) *or*
1 (unarmored vehicle, motorcycle sidecar)
+ FT firepower

$$+ \tfrac{3}{2} \times \left[\text{Usable MG (not RMG)} + \text{IFE} + \text{Passengers of CE armored HT} + \tfrac{1}{2} * (\text{Riders} + \text{non-BU Passengers not in armored HT}) \right]$$

- FP halved if vehicle Eliminated or immobilized (inc. Shock/Stun, crew K/KIA/Break) in DFF before OVR
- OVR FP halved vs Concealed target
- Check for Random SW Destruction (A9.74) on an OVR KIA (-1 drm if fully-tracked)
- If no Personnel are in the Location, SW/Guns in the Location are eliminated (A9.74)
- Sanger and Gun inside are automatically eliminated if OVR by a fully-tracked Mobile AFV (F8.41) or if OVR result is a final KIA

OVR DRMs:

- Armor Leader or Passenger Leader directing Passengers
- TEM (NA if only FT firepower is used (D7.15), Crest TEM NA (B20.92))
- Smoke
- -1 DRM vs Inf/Cav in Open Ground (including Entrenchments, Emplacements, Shellhole, vehicle, Wreck, Bridge, Wall, Hedge, Bocage, Smoke)
- +2 DRM for Motion vehicle targets and their Vulnerable PRC

Vehicle may exit if able

- Complete Trail Break (B13.421) as fully-tracked AFV exits Woods, Jungle, or Bamboo.
- Vehicle must exit the Location before concluding another OVR

Staying in the Location:

- Vehicle must be able to Shock/Elim an enemy AFV on an original TK/IFT DR of 5 in order to stay in that AFV's hex (D2.6)
- Random SW Destruction for unpossessed or non-portable SW/Guns not in Pillbox/Entrenchment when OVR by a fully-tracked AFV if it ends the MPh in the Location (A9.74)
- Concealed/HIP units are revealed if an "unbroken" vehicle (A12.1) ends the MPh in Bypass of their Location (A12.42)
- All units are marked with a CC counter and are bound by TPBF Target Selection Limits (A7.212) *[EXC: vs Unknown unit or unarmored vehicle with no Vulnerable PRC]*
- Surviving units are eligible to attack in the CCPh if able

Defensive Fire Options After OVR: (Reaction Fire)

	CC RF [b]	Non-CC RF IFT [a,e]	Non-CC RF LATW [c,e]	Non-CC RF Gun [e,n]
Unmarked	✔	✔	✔	✔
First Fired	✔[g]	✔	✔[k]	✔[l,m,o]
Final/Intensive Fired [l,m]	✔[g]	✔	✔	No
Pinned	No [p]	✔	✔[f]	✔[f]

Defensive Fire Footnotes

a TPBF vs unarmored vehicle and Vulnerable PRC (including those BU in OT AFV).

b PAATC (D7.21) required vs AFV if the unit is not exempt and has not yet taken a PAATC vs this vehicle in this phase. Failure of *this* PAATC Pins the unit *and* prohibits Reaction Fire *[EXC: footnote m]*. After performing a CC RF attack, mark the unit and all of its SW/Guns with First/Final Fire as appropriate; if the vehicle survives, mark the defending unit with CC to prohibit further non-CC RF attacks.

c Including SW Ordnance and unpinned FT, MG, DC, MOL. (MOL NA for Infantry marked with First/Final Fire) (PF NA in SFF/FPF)

d Vehicle target facing determined by the TH cdr: [1-2: rear 3-4: side 5-6: front] (D3.2). Underbelly Hits (D4.3) possible vs vehicle crossing Wall/Bocage/Dune Crest or exiting Depression (Gully/Stream/Wadi) via non-Depression hexside, or vs fully-tracked AFV OVRing a Sanger.

e Non-CC RF uses the vehicle's rear target facing (Underbelly Hits NA). NA if unit marked with CC.

f TH Case D also applies. ROF, FT, MG, MOL, and DC usage all NA.

g CCV reduced by 1 because unit was marked with First/Final Fire. Ambush vs Bypass Vehicle NA.

h Automatic Ambush vs Bypass vehicle (A11.8) unless Defender possesses a SW/Gun that is marked with First/Final Fire (D7.211)

i Using TH Case E and (if applicable) TH Case A. The Gun's CA must change to include the hexside being crossed by the entering AFV, therefore the shot is NA if the Gun cannot do so (fixed CA due to previously firing from Woods/Bldg/Rubble, Pinned Crew, etc.)

j Intensive Fire (TH Case F), one shot only, then mark with No Fire. NA for No-IF/No-Fire Guns.

k Only for squads still able to First Fire a SW without using it as SFF/FPF. LATW marked with First Fire may not fire in SFF/FPF.

l Resolved as FPF (A8.31)

m Reaction Fire mandatory *[EXC: vs unarmored vehicle with no PRC]*, even if Pinned (D7.212)

n Must turn CA to match vehicle's VCA, but TH Cases A and E are NA [D7.22]. NA if Gun cannot change CA (fixed CA due to previously firing from Woods/Building/Rubble, Pinned Crew, etc.).

o OVR Prevention (C5.64)/ Non-CC Reaction Fire (D7.23). The Original TH DR acts as an NMC vs its manning Infantry. If the manning Infantry is Pinned or Broken as a result of this NMC, the TH attempt is voided (except for any malfunction result).

p Unless marked with Final Fire or Intensive Fire and thus required to Reaction Fire per footnote m

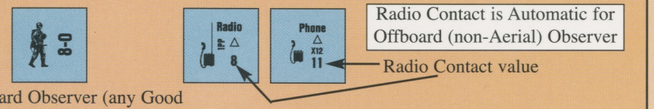
q Attacker may declare Gun Duel vs this type of defensive fire (C2.2401)

C1 Offboard Artillery Player Aid

Radio Contact

Δ

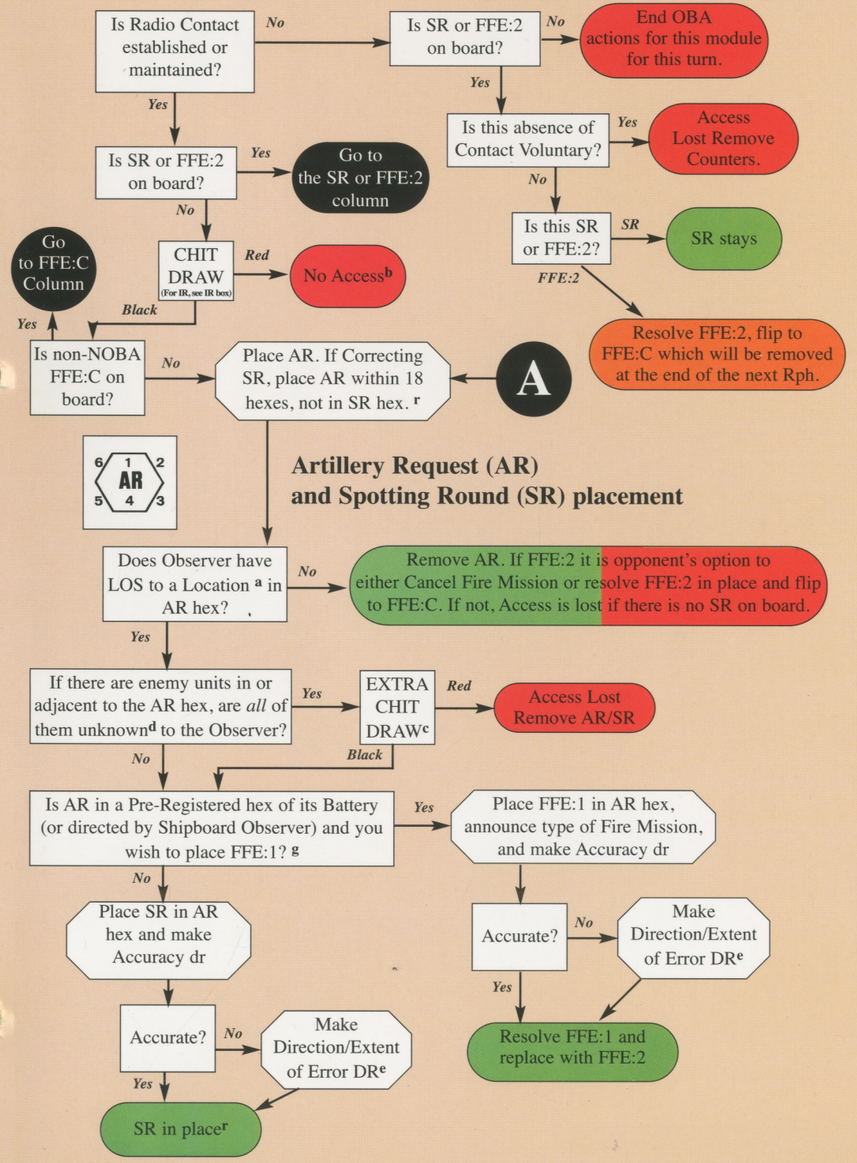
Performed by Observer at the start of any friendly PFPh or DFPh. If a DR is ≤ to the Radio Contact value on the radio/phone counter, Radio Contact has been achieved.



Onboard Observer (any Good Order leader with a functioning Radio or Field Phone, or an OP tank [H1.46] or an Observation Plane [E7.6]).

DRM:
- -1 for currently having Radio Contact (Maintenance)
- -1 Maintanence of 70+mm/80+mm battalion mortar OBA
- +1 PTO radio (not Field Phone)

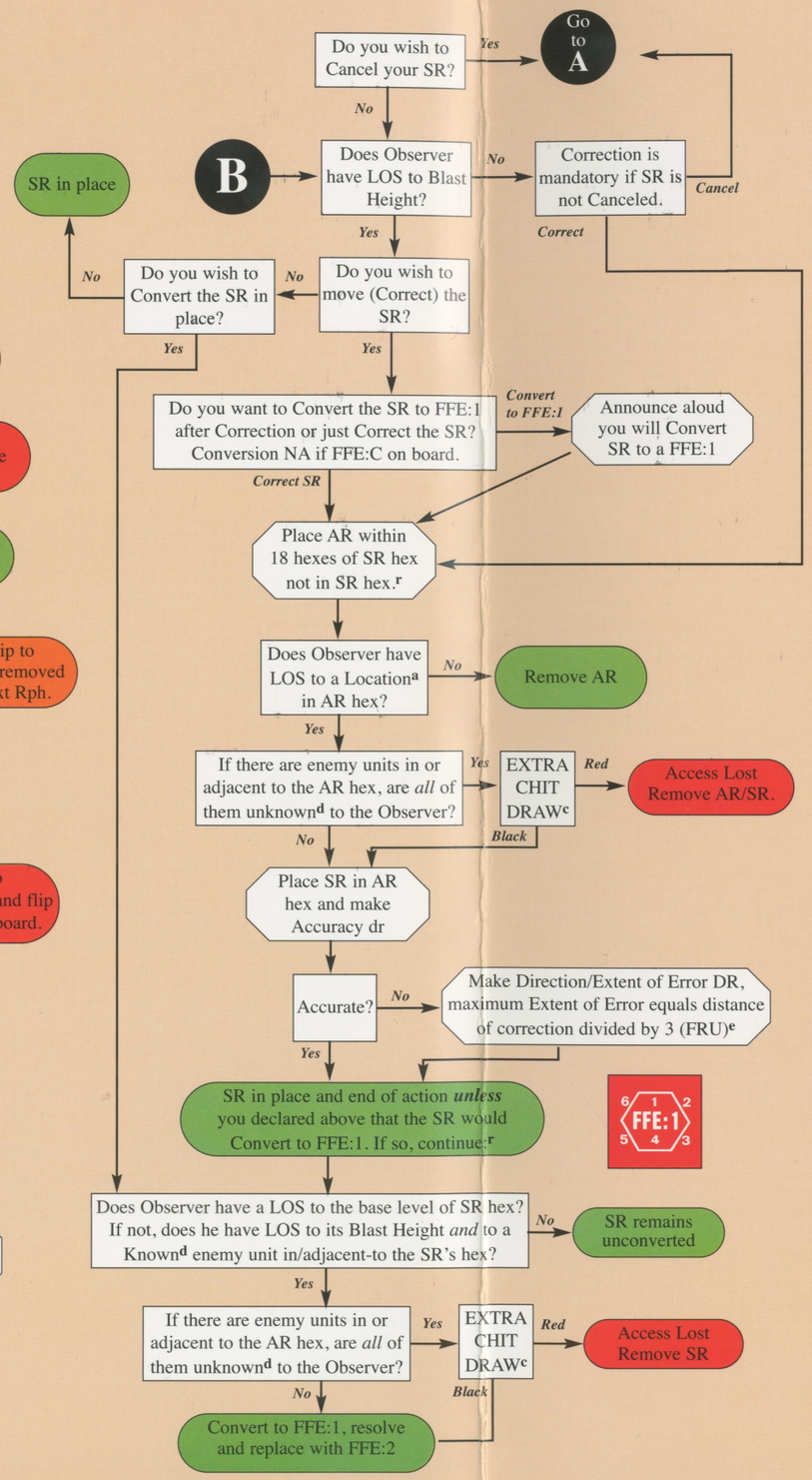
Contact and Access



Artillery Request (AR) and Spotting Round (SR) placement

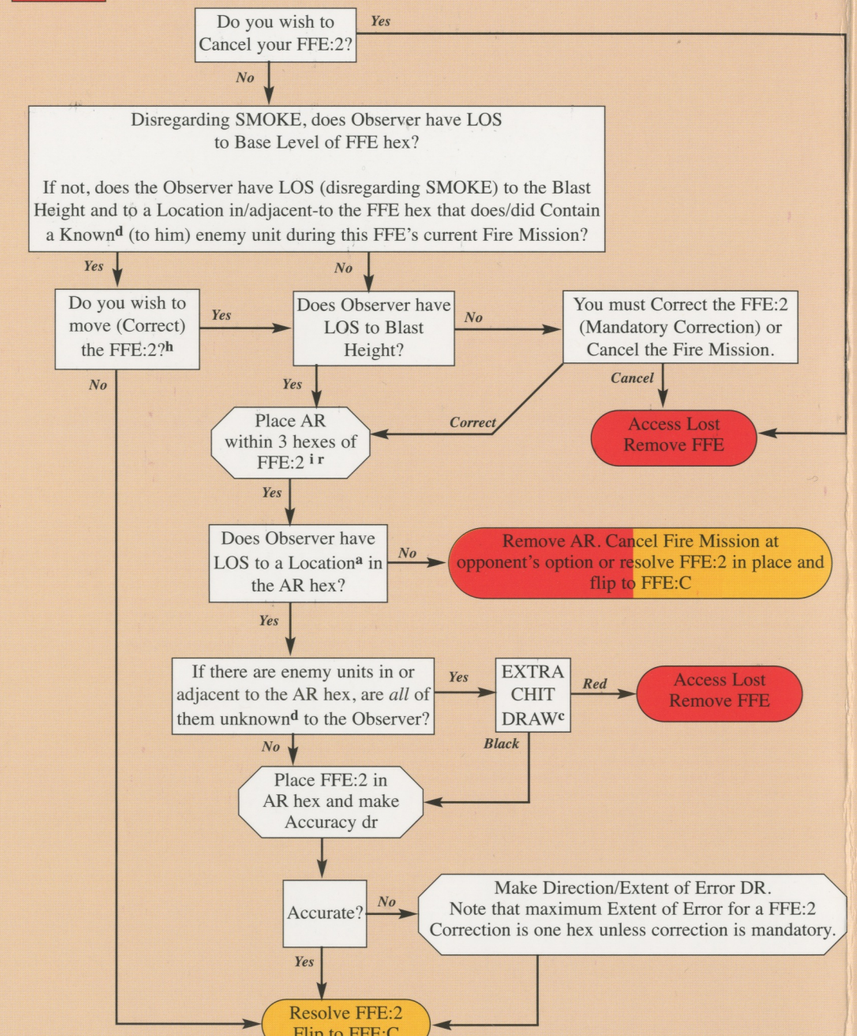
Converting and/or Correcting a SR

Observer has Radio Contact, Battery Access and a SR counter on board.



FFE:2 Correction and Fire

Observer has Radio Contact, Battery Access and FFE:2 counter on board.



Attempt Battery Access [f]

Draw one chit from your OBA Draw Pile and permanently remove it *[EXC: NOBA or IR]*. If the Chit is black, then access is gained.

Each battery's Draw Pile is assembled prior to play. The OBA Access Column on the National Capabilities Chart of Chapter A./G. divider lists the number of black and red chits available. NOBA always has 5B/2R. Besides a nationality's normal allotment, a battery may receive extra chits for the following circumstances:

- 1 Black chit if Pre-Registered (C1.73)
- 1 Black chit if Plentiful Ammo (C1.211)
- 1 Red chit if Scarce Ammo (C1.211)

Accuracy dr

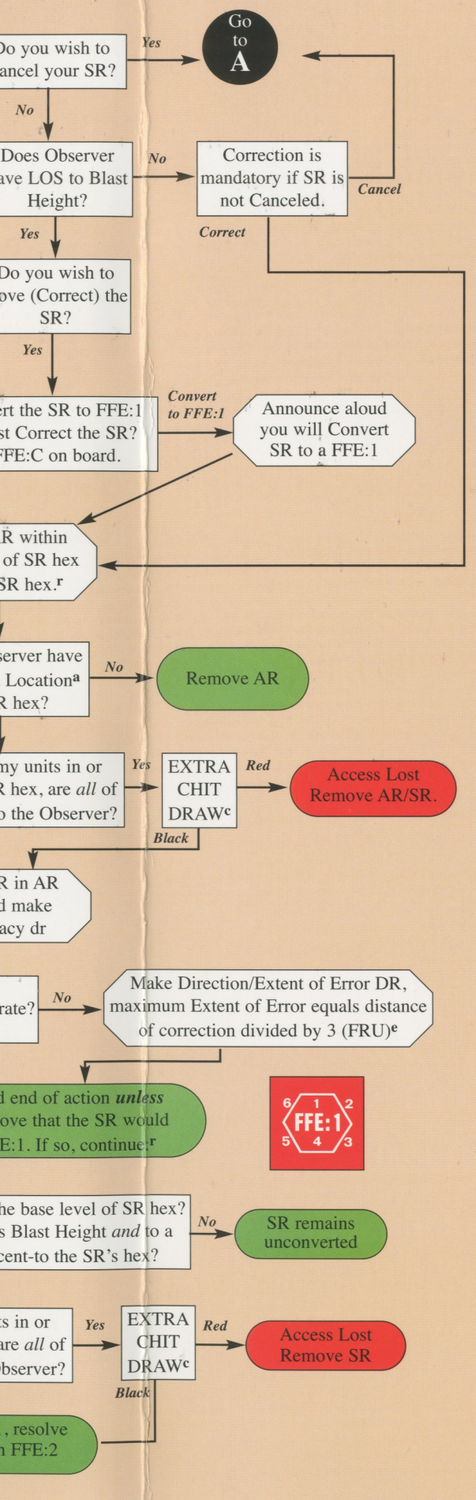
Accurate if dr:
- ≤ 4 Pre-Registered hex
- ≤ 2 German, British, or American onboard observers and any Shore Fire-Control Party.
- 1 All others

Die roll modifiers:
- +1 SR corrected 7-12 hexes
- +2 SR corrected 13-18 hexes
- +x x is cumulative Hindrance of SMOKE in Observer's hex and Hinderances along the LOF between Observer and AR *[EXC: Hinderance drm are NA when the AR is in a Pre-registered hex].*
- -1 Shipboard Observer
- +1 NOBA in Heavy Surf

Note: Accuracy NA if Correction was Mandatory.

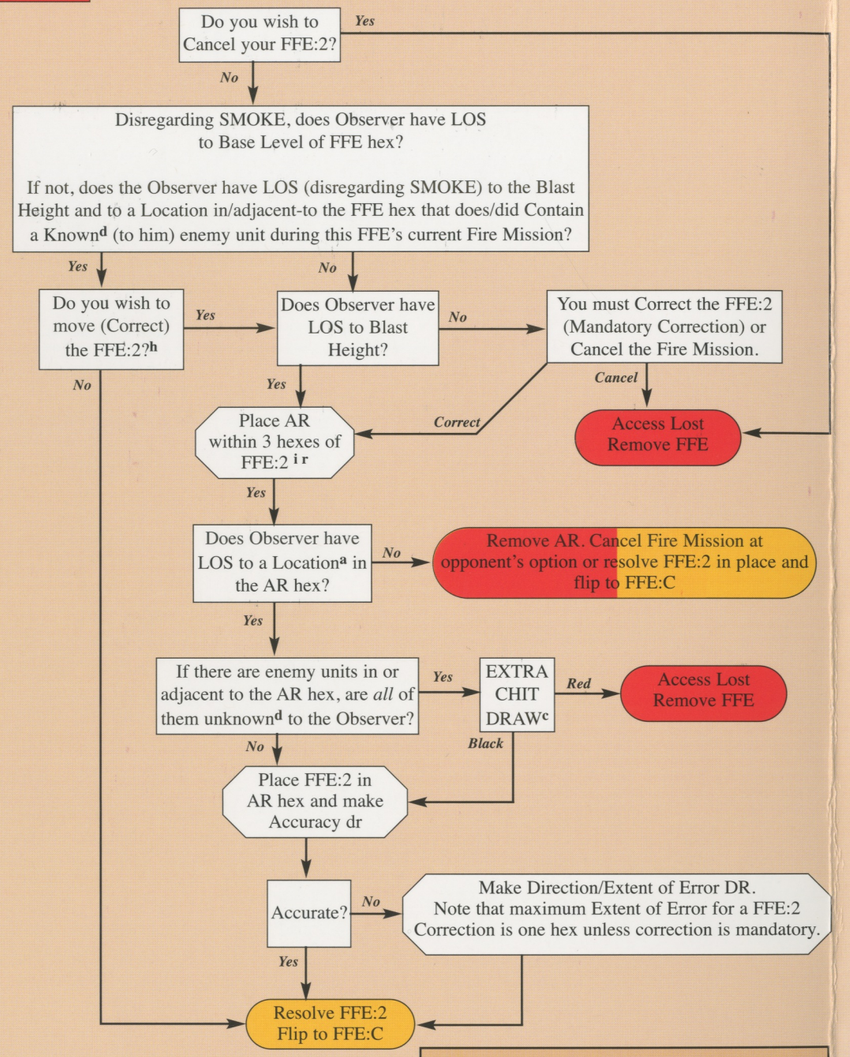
g and/or Correcting a SR

s Radio Contact, Battery Access
unter on board.



FFE:2 Correction and Fire

Observer has Radio Contact, Battery Access and FFE:2 counter on board.



Attempt Battery Access [f]

Draw one chit from your OBA Draw Pile and permanently remove it *[EXC: NOBA or IR]*. If the Chit is black, then access is gained.

Each battery's Draw Pile is assembled prior to play. The OBA Access Column on the National Capabilities Chart of Chapter A./G. divider lists the number of black and red chits available. NOBA always has 5B/2R. Besides a nationality's normal allotment, a battery may receive extra chits for the following circumstances:

1 Black chit if Pre-Registered (C1.73)
1 Black chit if Plentiful Ammo (C1.211)
1 Red chit if Scarce Ammo (C1.211)

Accuracy dr

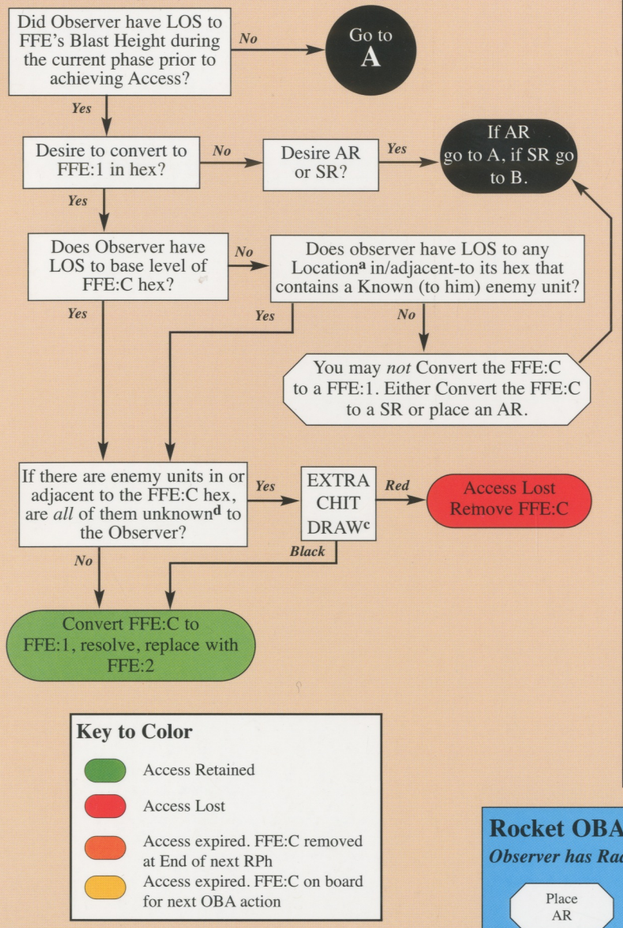
Accurate if dr:
≤ 4 Pre-Registered hex
≤ 2 German, British, or American onboard observers and any Shore Fire-Control Party.
1 All others

Die roll modifiers:
+1 SR corrected 7-12 hexes
+2 SR corrected 13-18 hexes
+x x is cumulative Hindrance of SMOKE in Observer's hex and Hinderances along the LOF between Observer and AR *[EXC: Hinderance drm are NA when the AR is in a Pre-registered hex]*.
-1 Shipboard Observer
+1 NOBA in Heavy Surf

Note: Accuracy NA if Correction was Mandatory.

FFE:C Procedures

Observer has Radio Contact, Battery Access and FFE:C counter on board.

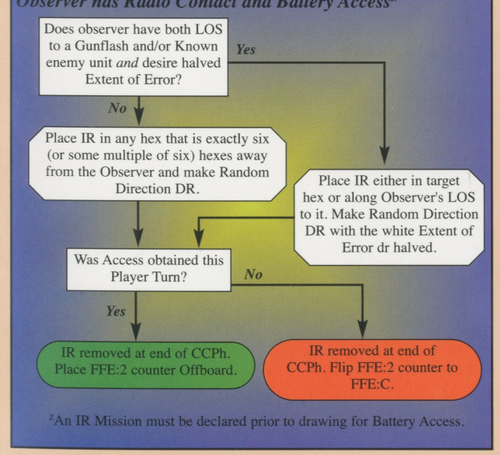


Key to Color

- Access Retained
- Access Lost
- Access expired. FFE:C removed at End of next RPh
- Access expired. FFE:C on board for next OBA action

Firing Illuminating Rounds (IR) with OBA

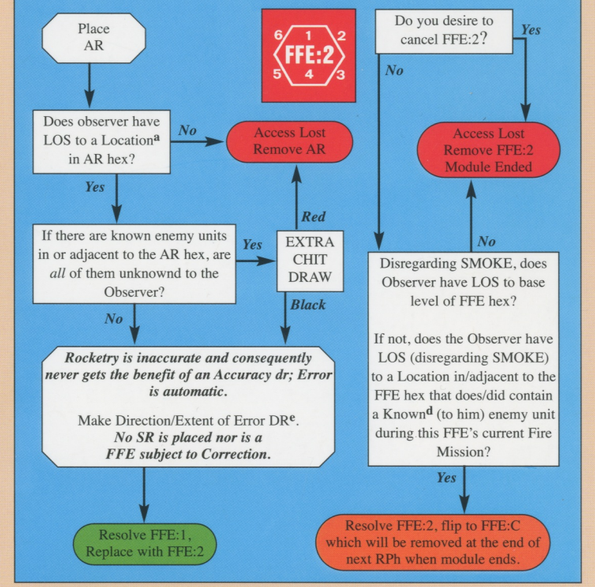
Observer has Radio Contact and Battery Access[z]



[z]An IR Mission must be declared prior to drawing for Battery Access.

Rocket OBA

Observer has Radio Contact and Battery Access



[a] Whenever Location is used here, it refers to a non-Aerial Location.

[b] If this is the 2nd "permanently" removed red chit, Battery Access is lost for duration of scenario.

[c] These "extra" chits drawn when all enemy units in/adjacent to the AR/SR/FFE placement hex are unknown to the Observer are not "permanently" removed from the Draw Pile.

[d] A Known enemy unit is an unconcealed enemy unit that you have LOS to. However, Concealed units in *non*-Concealment Terrain [EXC: night, Winter Camouflage] and in LOS of the Observer are always considered Known to him for his OBA actions.

[e] Extent of Error dr is halved (FRU) if in a Pre-Registered hex or directed by a Shipboard Observer. Extent of Error is always full if Correction is mandatory.

[f] An Observation Plane must have first passed a Sighting TC against a target in the planned seven-hex Blast Area of a hypothetical Concentration since Access was last gained. If target is HIP/Concealed, an extra black chit draw is also needed when the sighting TC is passed.

[g] Must choose FFE:1 if Barrage is desired.

[h] Cannot Correct Barrage FFE:2 if already in Pre-Registered hex.

[i] A Barrage AR may only be placed in/adjacent to its Pre-Registered hex unless the FFE:2 is already adjacent, in which case the AR may only be placed in the Pre-Registered hex.

[r] If a NOBA battery's AR/SR is placed (or lands) in a Reverse Slope hex, or if its FFE Blast Area lies completely in Reverse Slope hexes, that counter is removed and the Fire Mission (if any) is Canceled (EXC: if in a non-immune upper-level building Location that is also in Observer's LOS or if firing IR [G14.66]). A Shipboard Observer may place an AR only in/adjacent-to a Known (to him) enemy ground unit and must make an *extra* chit draw if a Known (to him) *friendly* ground unit is within six hexes of that AR.

ASL SCENARIO AID CARD

MONTH:	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
EC Determination drm:	-3	-3	-2	-1	0	+1	+2	+2	+1	0	-1	-2
Seasonal Terrain:	Ø	Ø	Ø	P O	P O	G O	G O	G O	G O	O	Ø	Ø

KEY: Ø: Orchard is 1 level Hindrance; P: Plowed Fields; G: Grain; O: Orchard is Level 1 Obstacle

Wind Force:

NONE*	MILD	HEAVY*
No Spreading Fire DRM due to wind	Fog decreases 1 level per Game Turn Spreading Fire DRM Drifting SMOKE Level 2 Hindrance (A24.4)	Drift Formation per RPh (E3.75) Fog decreases 1 level per Player Turn Fire Spreads as Blaze downwind automatically; no Spread upwind No SMOKE
1-3	4-5	6

*Change to < NONE, or > HEAVY, = MILD

FOG DISPLAY CHART (E3.3)

Level	
4	& lower
3	& lower
2	& lower
1	& lower
0	& lower
-1	& lower
-2	

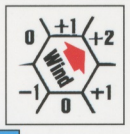
Fog dr: 6
Mist dr: 1-5

EC:	SNOW	MUD	WET
Weather:	Extreme Winter	Mud	Ground Snow
Final dr:	Deep Snow ≤ 0	1	Rain 2
EC/Kindling DRM:	-3	-3	-2

MOIST	MODERATE	DRY	VERY DRY
Fog/Mist Falling Snow 3 -1	4 0	5 +1	≥ 6 +2

Wind Change DR Summary	6 cdr = NVR Change
2	Wind Change (B25.65)
3	Hostile-Country Attacker Information (E2.4)
≤ 3	Rain/Falling Snow Stops (E3.51, .71)
4	Friendly-Country Attacker Information (E2.4)
≥ 10	Gusts occur if Gusty (E3.4) Rain/Falling Snow starts or increases (E3.51, .71)
12	Gusts; Burning Building(s) Collapse (B25.66)

ELR: 0 | 1 | 2 | 3 | 4 | 5



B25.65 WIND CHANGE dr	Result
1	Direction 1 CW
2	Direction 2 CW
3	Direction 1 CCW
4	Direction 2 CCW
5	Force Increases 1
6	Force Decreases 1

SAN: 0 | 2 | 3 | 4 | 5 | 6 | 7
+2 at night (E1.76)

Previous Integrity Base Loss: 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8

Base NVR: 0 | 1 | 2 (minimum in snow) | 3 | 4 | 5 | 6 (maximum w/o snow) | 7 | 8 | 9

NVR Change: Wind Change DR cdr 6: wdr ≤ 3 lowers; ≥ 5 (≥ 4 if no starshell/IR yet) raises

Radio Contact and OBA Status:	Battery A	Contact	Battery Access	Battery B	Contact	Battery Access	Battery C	Contact	Battery Access	Battery D	Contact	Battery Access

River Current dr*	Heavy ≤ 1	Moderate 2-5	Slow ≥ 6
River Depth dr*	Flooded ≤ 1	Deep 2-5	Fordable ≥ 6
Stream Depth dr*	Flooded ≤ 1	Deep 2-3	Shallow 4-5	Dry ≥ 6

*EC DRM=drm

Boobytrap Level	PF RANGE	ATMM Available	MOL Available
A	1	YES	YES
B	2		
C	3		

Casualty Tally/Victory Point/PF Usage Track

0	1	2	3	4	5	6	7	8	9
10	20	30	40	50	60	70	80	90	100

Current Turn Phase [(SAN) = Only Phases SAN are applicable]

Rally Phase	Prep Fire Phase (SAN)	Movement Phase (SAN)	Defensive Fire Phase (SAN)	Advancing Fire Phase (SAN)	Rout Phase	Advance Phase	Close Combat Phase