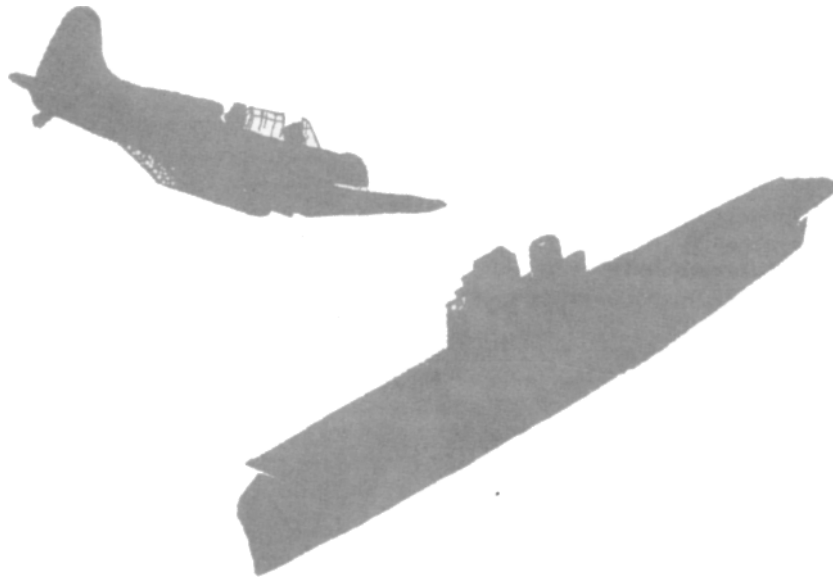


MIDWAY



Battle Manual



THE AVALON HILL COMPANY • BALTIMORE, MARYLAND

CONSUMER PANEL TESTED AND APPROVED

Game Length — Two to five hours Age Level — 12 years and Up Number of Players — Two

June 4, 1942 . . . Japanese Carrier and Occupation Forces are bearing down on the most strategic military island in the Pacific — Midway. Loss of Midway to the Japanese will place Hawaii in peril. Even the west coast of the United States will be within easy striking distance of Japanese air bombardment.

Less than 600 miles divide opposing forces that are to make this day one of the most memorable in the history of naval warfare. Here, where the invincible Japanese Navy is to meet the outnumbered forces of the United States in the decisive battle of the Pacific, you take command.

Your skill, your judgement and daring can alter the course of history. You command all the original Carriers, Battleships. Cruisers and Aircraft in this historic battle.

Midway is another Avalon Hill game designed for the above average who enjoy the thrills and excitement of authentic, all-skill battle games.

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INTRODUCTION

MIDWAY allows you to re-fight the famous naval battle that marked the turning point of the battle in the Pacific. It is not a simple game. It is designed for the person who enjoys a stimulating, intellectual game that incorporates highly realistic elements of naval warfare. Nevertheless, the game is easy enough for anyone to learn if he follows the step-by-step instructions that follow.

MIDWAY is really two games in one—a *Basic Version* and a *Tournament Version*. You should attempt to learn *only* the *Basic Version* first. If after playing several *Basic* games you feel you understand the basic concepts of play go on to the *Tournament* game.

EQUIPMENT

SEARCH BOARD: The Search Board represents the area in the Pacific in which the Midway battle took place. Each player has a reproduction of this entire area in front of him on which he will move the Order of Battle counters that represent each of the ships that were actually engaged in the Midway battle. He cannot see what the other player is doing on his Search Board because of the screen which is placed between them. **AREAS:** Large blocks such as A-1, B-2, etc. **ZONES:** The small blocks lettered A to I.

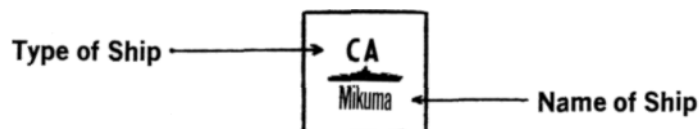
BATTLE BOARD: Actual battle is conducted on the Battle Board. When any air attacks take place against ships of one side, only ships of that side will be placed on the Battle Board; when, in the Tournament Version only, surface combat occurs between enemy ships, the ships of both sides will be placed on the Battle Board in accordance with the procedure outlined later in the Instructions under Surface Combat.

HIT RECORD PAD: Use to keep record of hits scored on ships. Also, use to record operations and the passage of time.

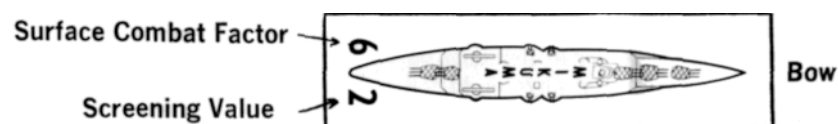
SCREEN: Place in the middle of the *Search Board* so that each player's *Search Counters* can be moved in secret. Screen contains the *Surface Combat* and *Fighter vs. Fighter Results Tables*, printed identically on both sides.

SEARCH COUNTERS: The *square* counters with the ship silhouettes and names on them represent all the ships that take part in the *Search Procedure*. They are used only on the Search Board.

TYPES: BB—Battleships; CV—Aircraft Carriers; CVL—Light Aircraft Carriers; CA—Heavy Cruisers; CL—Light Cruisers.



SHIP COUNTERS: The *rectangular* counters represent ships that take part in battle on the Battle Board. They are used *only* on the Battle Board.

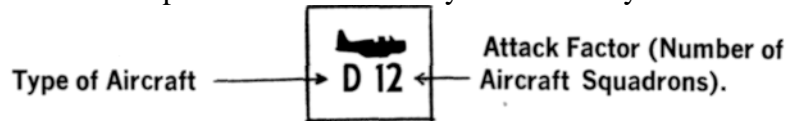


SURFACE COMBAT FACTOR: This number represents the combat value of the

ship when engaging enemy ships in surface combat. This number is used only in the Tournament game. When learning the Basic game, ignore this number.

SCREENING VALUE: This number represents the relative defensive value of the ship when firing at enemy aircraft.

AIRCRAFT COUNTERS: The square counters with airplane silhouettes on them represent aircraft that take part in the **battle**. They are used only on the Battle Board.



D—Dive Bomber, T—Torpedo Bomber, F—Fighter. (Fighters are to be used only in the Tournament game—ignore Fighters completely in the Basic game.)

ATTACK FACTOR: This number represents the relative attack strength of a particular aircraft counter.

HOW TO WIN

The player who has accumulated the most points when the game ends is declared the winner. If both sides have the same number of points the game is a draw. Players accumulate points as follows:

U.S. Player: (1) receives the number of points listed beside a ship's name on the *Hit Record Sheet* when he sinks that ship. That ship is sunk when a hit has been marked in each of the boxes next to the ship's name. Each time the ship is hit a box is checked off. No partial points are given for ships that are only damaged but not sunk. (2) receives one point for each turn starting with 0500 June 5th that he keeps the Japanese player from taking Midway Island.

Japanese Player: (1) receives points by sinking United States ships in the same manner the U.S. Player receives points for sinking Japanese ships. (2) receives 15 points if he captures Midway before the end of the game at 1700 June 6th.

BASIC GAME

PREPARE FOR PLAY

1. Place the Search Board between both players so that the red side is facing the Japanese player and the blue side is facing the U.S. player.
2. Place the *Screen* in the middle of the Search Board so that starting placement and subsequent play on both sides can be done in secret.
3. Place the Battle Board beside the Search Board so that each player can conveniently conduct play on the Battle Board without seeing his opponent's Search Board.
4. Each player places a *Hit Record Sheet* in front of him so that he can mark off Time and Hits on his own and enemy ships.
5. On the Battle Board, under the name of each Aircraft Carrier is a square on which the players place Dive Bomber, Torpedo Bomber, and (for the Tournament Version only) Fighter counters with an attack factor equal to the value printed on the Battle Board. For instance, the *Enterprise* would have an F-8, a D-12, and a T-5 counter placed on the

three squares under her name. (In playing the Basic Version of the game Fighters are not used and their squares on the Battle Board are left blank. No further reference will be made to them until the Fighter Section under the Tournament Version rules.)

As you notice you have many more Aircraft Counters than you can place on the spaces provided under the names of each of the Aircraft Carriers. These are Substitute Counters. When Attack Factors are lost in combat you will need Substitute Counters. You will also need Substitute Counters when you wish to divide your D's or T's in order to conduct several simultaneous attacks. For instance, instead of having all 12-D's attack one ship you may have 5 of them attack one ship and 7 of them attack another. You would break the D-12 down into two D-5's and a D-2. If after the attack the *Aircraft vs. Ship Combat Results Table* calls for the loss of, say, 3 squadrons in each battle you would use the Substitute Counters so that you have 6 D squadrons left when your planes are returned to the *Enterprise*. The Substitute Counters are kept to the side somewhere and used when needed. Remember—Substitute Counters are *not* additional aircraft or replacements but are merely used to break large value counters into smaller ones when needed.

6. Each player places his *Search Counters* on the Search Board. The Japanese player must place his ships arriving at 0500 June 4th in any of the shaded Zones along his left-hand edge of the board. He may place as many ships as he wishes in any one zone though he need not place more than one ship in any one zone. The U.S. player must place *all* of his ships in any of the shaded zones along his right-hand edge of the board. He may place as many ships as he wishes in any one zone though he need not place more than one ship in any one zone.

HOW TO PLAY

You are now ready to play MIDWAY. The following is a condensed, step-by-step explanation of how to play the Basic game.

SEARCH BOARD PROCEDURE:

STEP 1: The Japanese player moves each of his ships 2 zones on the first Turn and all subsequent Turns. The U.S. player moves each of his ships 6 zones on the first Turn and 2 zones on all subsequent Turns. You may move all, some, or none of your ships on each Turn. You need not move any skip its maximum per-Turn rate. Moves are *not* transferable from one ship to another; that is, you may *not* move one ship 4 zones if you do not move some other ship at all.

STEP 2: After moving, each player tells his opponent if he is "readying" his planes for take-off. This means that he is arming, fueling, and preparing his planes for attack. If a player states that he is "readying" his planes, he will be able to attack the enemy on the *next* Turn. (Remember—in the Turn when a player says he is "readying" his planes, he cannot attack—it takes a Turn to prepare the planes.) Once a player "readies" his planes, they remain ready for immediate launching on all subsequent Turns unless at the beginning of some Turn a player announces that he is "de-readying" his planes. It would seem from the above that a player would always ready his planes at the beginning of the game and then forget about them. However, the disadvantage of "readying" or "readied" planes on deck is that if an Aircraft Carrier is attacked while "readying" or "readied"

planes are on her, she will sink with one less hit than is normally required. For instance, the Soryu normally requires 3 hits to sink—but with "readied" planes on deck just 2 hits would sink her.

STEP 3: The U.S. player now calls out areas, one at a time. He is searching for the presence of Japanese ships in the *areas* he calls out. He may call out any and all *areas* in which he (the U.S. player) has a ship of his own. He may also call out 4 additional *areas* anywhere on the whole board (see Midway section for exception) that represent *areas* covered by air search. After the call of each area by the U.S. player, the Japanese player must tell him if there are any Japanese ships in that area. He must state the exact *zone* within the area they are in and the types of ships. He need not tell the exact names of the ships (during real air and sea search, identification of ships by name was practically impossible—even type identification was often erroneous.)

STEP 4: After the U.S. player has searched, the Japanese player does the same. He calls areas in which he (the Japanese player) has a ship of his own. He may also call out 3 additional areas that represent air search. However the Japanese player may not conduct air search over the whole board but only within 12 zones of one of his ships. (These ships need not be Aircraft Carriers—almost all Japanese ships carried search planes.) After each call by the Japanese player the U.S. player must State the types of ships in the area and the exact *zone* they are in just as the Japanese player had to do in the previous step. Remember: The U.S. player has 4 Air Search calls; the Japanese player 3.

STEP 5: Each player now secretly writes on the Operations portion of his Hit Record Sheet whether he is launching an attack this turn. (The Range of Aircraft Section gives information about distances from which attacks may be launched.) If he chooses not to launch an attack, he simply writes nothing or "no attack" on his sheet. If he launches an attack, he writes: (1) to what area and *zone* the attack is going, (2) how many attack factors (squadrons) of Dive Bombers and Torpedo Bombers are in the attack. (For the Basic Version of the game Fighters are not used.) He may launch as many different attacks as he wishes; however, no squadron may attack more than one *zone* on any particular turn.

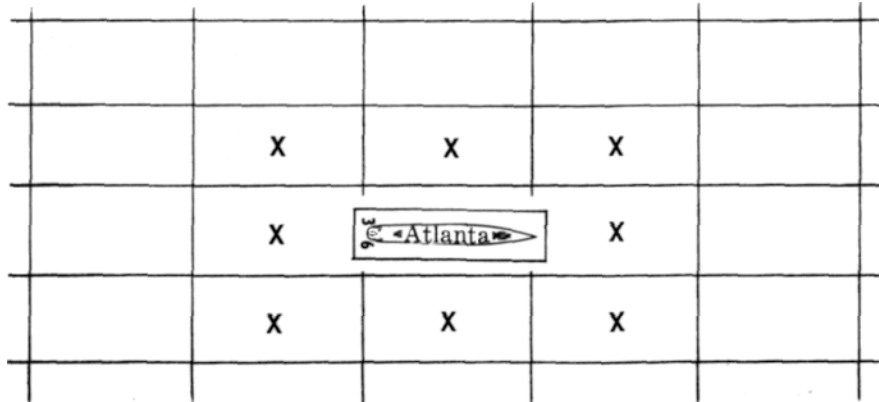
After both players have secretly written their Operations plan for that Turn, they exchange record sheets so each can see what the other has done that Turn. If neither player has launched an air attack; one Turn representing 2 hours, is checked off on the Time Record and play reverts to STEP 1. However, if either or both players have launched an attack play proceeds to Step 6.

BATTLE BOARD PROCEDURE:

STEP 6: The entire Battle Board represents one Search Board *zone*. Therefore for each attack launched on a different Search Board zone a separate battle must be fought on the Battle Board. When attacks are launched by both players during the same Turn it doesn't matter which player sets his ships in Battle Board defensive disposition first . . . but for the sake of having a rule let us say that when simultaneous attacks have been launched, the U.S. player receives the first attack (for illustrative purposes our example will consist of U.S. ships under attack by Japanese Aircraft).

STEP 7: The U.S. player must now place the rectangular ship counters, representing all the ships in the *zone* on the Search Board under attack, on the Battle Board. He may place them anywhere on the Battle Board he wishes, but he may never place more than one ship in a rectangle nor *may he place any ship in a rectangle adjacent*

to another ship. See the example below.



With the Atlanta placed where she is, no other ship may be placed in any of the rectangles with X's in them.

STEP 8: The attacking player (the Japanese in our example) now places his Dive Bomber and Torpedo Bomber counters on the Battle Board in such a way so as to indicate which ship or ships they are attacking. This is done by placing Dive Bomber counters directly *on top of the ship* they are attacking and by placing Torpedo Bomber counters *in the rectangle directly to either the Port or Starboard beam of the ship* they are attacking. See the Diagram (A).

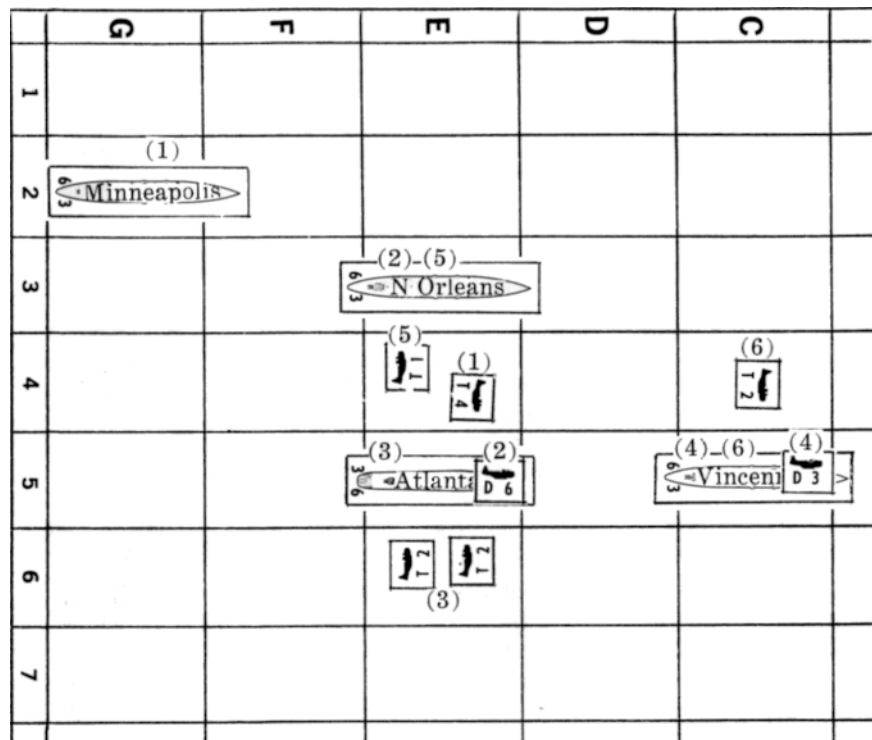


Diagram (A)

In the above example the Vincennes is being attacked by 3 Dive Bomber (D-3) squadrons and 2 Torpedo Bomber (T-2) squadrons. Note that the Dive Bomber counter is placed on top of the ship and the Torpedo Bomber counter is placed in the rectangle on the Port beam. The Torpedo Bomber counter could also have been placed in rectangle C-6 to

attack the Vincennes if the Japanese player had so desired. These are the only two rectangles from which Torpedo Bombers could attack.

The Atlanta is attacked by a D-6, two T-2's on the Starboard beam, and a T-4 on the Port beam.

The New Orleans is attacked by a T-1. Note that since the T-1 attacking the New Orleans and the T-4 attacking the Atlanta are in the same rectangle it is necessary for the attacking player (Japanese in this case) to point the Aircraft Counters *toward* the ships they are attacking.

The Minneapolis is not attacked.

STEP 9: The defender (U.S. Player in this case) now states which of his ships are *firing at* the various groups of Japanese D's and T's. A ship's *screening value* represents the strength of the anti-aircraft fire that it can direct at a *group of enemy planes*. A *group of enemy planes* is defined as one or more counters of plane squadrons. It may fire at, that is, use its screening value against any group of Dive Bombers or Torpedo Planes in any *one* rectangle within one or two rectangles of itself that are attacking any one ship. For instance, in Diagram (A) the Minneapolis may fire only at Torpedo Planes in E-4 attacking either the New Orleans or the Atlanta—not both. The New Orleans may fire at either the T-1 attacking it or the T-4 attacking the Atlanta or the D-6 attacking the Atlanta or the T-2 attacking the Vincennes or the D-3 attacking the Vincennes. The New Orleans may fire at any one of these groups but only one. Its entire screening value must be used against one and only one attacking group of planes.

The Atlanta may likewise fire at any one of the same groups at which the New Orleans is firing. She need not fire at the same group but she may do so if she wishes.

The same is true for the Vincennes.

STEP 10: After the defending player states which ships are firing at which groups of aircraft, the *battle odds* are computed. Again let's use our above example. Suppose: (1) the Minneapolis is firing at the T-4 attacking the Atlanta on the Port beam; (2) the New Orleans fires at the D-6 attacking the Atlanta; (3) the Atlanta fires at the two T-2's attacking her on the Starboard beam; (4) and the Vincennes fires at the D-3 attacking her. *Battle odds* are computed by stating the number of squadrons (attack factors) in an aircraft group and then the screening value of the ship (or combined screening values of the several ships, if that is the case) firing at that group. In our example, the Battle Odds are: (1) 4-3; (2) 6-3; (3) 4-6; (4) 3-3.

IMPORTANT: As you notice, no ships fired at (5) the T-1 attacking the New Orleans or (6) the T-2 attacking the Vincennes. These odds are therefore defined as (5) 1-1 and (6) 2-1 respectively. In all cases where a group of aircraft are not fired at, the odds are stated as "the attack factor of the aircraft—to 1." In other words, ships that have already applied their screening value to a previous attack, retain an arbitrary screening value of "1" (not "0") that is applied against any and all additional air attacks it receives in the same Turn.

STEP 11: Each of the *battle odds* are reduced to one of the even multiples printed in the *Aircraft vs. Ship Combat Results Table* printed on the Battle Board. For instance, the above will become (1) 1-1, (2) 2-1, (3) 1-2, (4) 1-1, (5) 1-1, (6) 2-1. (See the *Aircraft vs. Ship Combat Results Table* section for detailed explanation how to do this.)

STEP 12: The die is rolled for each battle and the result of each is obtained from the *Aircraft vs. Ship Combat Results Table*. Hence, in the above example, there would be 6 attacks. If the rolls of the die were as follows for the 6 battles (1) 2, (2) 6, (3) 1, (4) 6, (5)

3, (6) 2, the results would be (1) 1 hit on the Atlanta and a T-2 lost from the T-4 group in E-4; (2) 3 hits on the Atlanta and a D-3 lost from the D-6 group; (3) a miss on the Atlanta and a T-2 destroyed from the T-2 groups in E-6; (4) two hits on the Vincennes and the D-3 completely destroyed; (5) one hit on the New Orleans and the T-1 destroyed. (The Result Table calls for a T-3 destroyed but only a T-1 attacked so only that one is destroyed); (6) one hit on the Vincennes and the T-2 destroyed.

STEP 13: The results are marked on the *Hit Record Sheet*. In our example, the Atlanta received 4 hits—more than the 3 needed to sink her—so she is sunk. The Vincennes receives 3 hits—she can still take 2 more. The New Orleans receives 1 hit—she can take 4 more.

STEP 14: The Japanese player uses Substitute Counters to reduce his groups to what they should be after losses. This battle is over.

STEP 15: If other attacks, either by the other player or by the same player on enemy ships in different zones, are necessary they are concluded in the same manner.

STEP 16: After all Battle Board attacks are resolved the players return their Aircraft Counters to any Aircraft Carriers (or Midway Island for the U.S. player) still afloat within range.

STEP 17: Each player that has launched an attack must now tell the other player the exact *area* and *zone* from which the attack came and the exact *area* and *zone* to which the attacking aircraft return.

STEP 18: Check off one Turn on the Time Record and revert to Step 1.

RANGE OF AIRCRAFT

All planes may fly a total of 14 zones on any one Turn. This means that in order for a plane to perform a mission and return to the Aircraft Carrier from which it took off, its target cannot be more than 7 zones away. However, *all* aircraft (including those on Midway) may take off from one Aircraft Carrier and land on another (or on Midway). Hence, planes could bomb a target say 10 zones away and fly 4 zones to another Aircraft Carrier if there were room for them on that Carrier.

A player may launch an attack at a target so far away that his plane cannot return to an Aircraft Carrier (or Midway). After the attack, all of these planes are eliminated regardless of the outcome of the attack.

AIRCRAFT CAPACITY OF AIRCRAFT CARRIERS

All Aircraft Carriers may hold no more than the total number of squadrons (attack factors) that they held originally. However, this need not be of the types of planes originally started with. For instance, instead of 7-D and 10-T on the Kaga, a player could keep 17-D or any other combinations not exceeding 17 Squadrons on the ship. (In the *Tournament* game this maximum is 24 Squadrons due to the addition of Fighters.)

SINKING OF AIRCRAFT CARRIERS

When planes are "readying" or "ready" on the deck of an Aircraft Carrier when she

receives a hit that is one less than the number normally required to sink her, she is considered sunk. This is because of the additional damage that will be caused by the armament and fuel on her own planes. For example, if planes are "ready" when the Hiryu is attacked, two (2) hits would sink her.

When an Aircraft Carrier sinks, only the Aircraft that are on her *at that time* are lost. Any planes that are participating in an attack on that Turn are considered in the air and may land on any other Aircraft Carrier within their range if that Aircraft Carrier has room for them. (In the Tournament Version of the game, Fighters in the air over their own fleet may also land elsewhere if there is room.)

MIDWAY ISLAND

1. Starting with 0500 June 5th the U.S. player gets one point for each turn in which Midway Island is not taken by the Japanese player.
2. When the U.S. player loses Midway, he loses his Full Board Search and may search only within 12 zones of one of his ships from then on.
3. When the Japanese player takes Midway, he does NOT gain Full Board Search but maintains his 12 zone search. (This is because he could not bring long range sea or land based patrol planes up in time to take advantage of the island within the time limit of the game.)
4. The Aircraft capacity of Midway for the U.S. player is 30 squadrons (attack factors). Note that this is different from the rule applying to the capacity of Aircraft Carriers.
5. When the Japanese player takes Midway, he may not locate planes on the Island. (The destruction of the Island will be too great for him to restore it in the time limit of the game.)

HOW JAPANESE PLAYER CAPTURES MIDWAY

In order to take Midway, in the Basic game, the Japanese player must invade for 4 consecutive turns.

Invasion is accomplished by placing the cruiser *Atago* on the Midway Island zone for 4 consecutive turns. (The *Atago* was the Flagship of the Invasion Fleet and in the game symbolically represents the Troop Transports.) Hence, if the *Atago* is sunk, the transports are considered sunk and the Japanese can never capture Midway. Therefore, the Japanese player should greatly protect the *Atago* throughout the game.

When Midway falls the Japanese player immediately receives 15 points and all U.S. planes on the island are considered eliminated.

SURFACE COMBAT

Since the likelihood of surface combat between ships occurring in the actual battle was very small, this aspect of play has not been provided for in the *Basic* game. (If opposing ships find themselves in the same zone on the Search Board merely continue play normally with the assumption that opposing ships failed to sight each other.)

NIGHT MOVEMENT

When a night Turn occurs all air activity ceases. Hence, no air search or air attacks can take place. Movement and all other rules are the same. Players may call ship search areas

if they so desire.

SEARCH AND LOCATION COUNTERS

These Counters are supplied in case a player wishes to mark the location of enemy ships found; areas he or the enemy have searched; or anything else he wishes to use them for in aiding him to play the game.

AIRCRAFT VS. SHIP COMBAT RESULTS TABLE

To resolve combat, players must first convert battle odds to the basic odds comparison appearing on the table. This is done by using the following rule:

RULE: Round off all battle odds in favor of the defender. For example, if battle odds are 29 to 10, thus lying between 2 to 1 and 3 to 1, they are rounded off to 2 to 1. In other words, all fractions are rounded off in favor of the defender. Other examples: 9 to 5 converts to 1 to 1; 24 to 5 is 4 to 1; 2 to 3 is 1 to 2; 4 to 15 is 1 to 4; etc.

You have now finished the instructions to the *Basic* game. We suggest that you play the game; and, at a later time, learn to play the Tournament Version.

If during the playing of Midway specific questions arise which are not covered in the above Instructions, consult the *Appendix* of questions concerning unusual situations at the end of this manual. Unless you feel the need, do not bother with this section; however, we feel that most questions you may have concerning the game that are not answered in the Instructions will be answered in the Appendix.

TOURNAMENT GAME

These additional rules may be used in playing Midway. It is not necessary to use all the sections that follow. The three main sections— Fighters, Midway Reduction, and Surface Combat—may be used either together or alone.

The other optional rules may or may not be added at your discretion. They add realism and additional complication for the player who doesn't mind handling many complicated variables in his mind at one time.

FIGHTERS Preparation of Fighters:

1. Place the correct number of Fighter Squadrons (attack factors) in the square provided under the name of each Aircraft Carrier (and Midway) on the Battle Board.
2. The capacity of the Carrier is increased by this number of squadrons.
3. Fighter Substitute Counters are used in the same manner as they are used with Torpedo Bombers and Dive Bombers.

Use of Fighters:

4. At Step 5 of the *Basic* game Instructions (when both players secretly write down their attacks) each player writes down his Fighter disposition for that Turn. For instance, he may send some of his Fighters with his attacking Dive and Torpedo Bombers to protect them against enemy Fighters and he may send some up over his own ships on Combat Air Patrol (CAP) to try to intercept any enemy attack he thinks may come that Turn. All refueling, i.e., "reading" rules that apply to Dive Bombers and Torpedo Bombers also apply to Fighters. That is, all planes must "ready" at least one Turn before they may be used again.

5. The attack factors of Fighter Counters can be used in only two ways:

- a. *Against enemy fighters.*
- b. *As an additional screening value against enemy Dive Bomber and Torpedo Bomber attack.*

They may *not* be used to bomb ships.

6. *Use of Fighters against enemy Fighters:* If after secretly writing down their plane dispositions for a given Turn, opposing players discover that they have Fighters in the air in the same *zone*, Fighter combat occurs. The odds are obtained in the usual manner; the die is rolled and the *Fighter vs. Fighter Table* is consulted for the result. Example: 14-D, 14-T, and 7-F arrive over a group of U.S. ships in a particular zone. The U.S. player has sent up 10-F on CAP over his ships. The Fighter Combat odds are 7-10 or 1-2. Note: since the Japanese player is attacking his odds are given first. If a 4 is rolled the result means the defender (U.S. player) loses 3 Fighter Squadrons and the attacker (Japanese player) loses 5 Fighter Squadrons. Thus the Japanese player will have 2 Fighter Squadrons left and the U.S. player will have 7 Fighter Squadrons left.

After Fighter Combat, regular Dive Bomber and Torpedo Plane vs. Ship combat is resolved after which surviving Fighters are returned to a Carrier.

7. *Use of Fighters as additional screening value against enemy aircraft:* When a defending player has more Fighters in the air over his own ships than an attacker has

Fighters escorting his attacking planes, the defender may use the excess Fighters as additional screening value rather than against enemy Fighters in Fighter combat. For instance; in our previous example 7 Fighter Squadrons were escorting an attack that came upon 10 Fighter Squadrons defending. Instead of fighting Fighter combat at 7-10 odds the defender could have "stripped off" (taken away) up to 3 Squadrons to screen with. He then would have fought the attacking fighters at 7-7 or 1-1. Note: the defender may never strip off Fighters so that his number of Squadrons falls below that of the attacker in Fighter combat.

The stripped off screening values of Fighters may be used against any enemy Dive Bombers and Torpedo Planes on the Battle Board. After the attacker has set up his attack the defender simply adds the number of stripped off Fighter Squadrons to the screening value of any ships firing at a particular group of attacking aircraft. The defender has complete choice as to which attacking group he wishes to use his Fighters against. Fighters used in this manner may be broken down with Substitute Counters and used against different attacking groups. For instance; an F-3 Counter may be broken down into three F-1 Counters with each F-1 Counter used against three different attacking groups of aircraft.

EXAMPLE: In Diagram (A) under STEP 8: Battle Board Procedure-suppose the Japanese player had 10 Fighter Squadrons with his Dive and Torpedo Planes and the U.S. player had 16-Fighter Squadrons over his ships on CAP. The U.S. player could strip off up to 6 Fighter Squadrons to use as additional screening value against the attacking Japanese aircraft. He might then defend as follows: (1) 3-F against the T-2 attacking the Vincennes at 2-3 (1-2), (2) 3-F against the T-2's attacking the Atlanta's starboard beam at 4-3 (1-1), (8) the Vincennes fires at the Japanese D-3 attacking her at 3-3, (4) the Atlanta fires at the D-6 attacking her at 6-6, (5) the Minneapolis and the New Orleans fire at the T-4 attacking the Atlanta's port beam at 4-6 (1-2), (6) the T-1 attacking the New Orleans is not fired at so odds are 1-1. The battle would now be resolved in the usual manner.

8. No Fighter Squadron may fight more than one attacking group per Turn.

MIDWAY REDUCTION

In the *Tournament* game an additional requirement exists for the capture of Midway by the Japanese. Before the *Atago* can be placed on the Midway zone to start the 4 consecutive Turns needed to capture the island, the defenses of the Island must be "softened up" by air attack, ship bombardment, or a combination of both. This is done as follows:

1. Midway starts with a *relative fortification strength* of 20 which the Japanese player must reduce to zero before he may invade, i.e. place the *Atago* on the Midway zone.
2. If the Japanese player launches an air strike against the island, the attack factor of all the Dive Bombers and Torpedo Bombers (not Fighters) are added together to get an attack strength.
3. This is compared to the *relative fortification strength* of 20 to get an odds comparison in the usual manner. For instance; if 20 Dive Bombers and 15 Torpedo Planes attack Midway, odds are 35-20 (1-1). If 25 Dive Bombers and 20 Torpedo Planes attack, odds are 45-20 (2-1).

4. The die to rolled and reference is made to the *Midway Reduction Table*. The numbers in the *Table* represent *both* the amount that Midway's *relative fortification strength* has been reduced *and* the number of U.S. aircraft squadrons destroyed on the ground at Midway. Note: if there are fewer squadrons than that number on the ground only those planes are lost—any planes in the air that Turn are not affected.

MIDWAY REDUCTION TABLE

DIE ROLL	1-3	1-2	1-1	2-1	3-1
1	1	1	6	10	15
2	2	3	8	13	17
3	3	5	10	15	20
4	3	5	10	17	20
5	4	7	12	20	20
6	5	10	15	20	20

5. In future attacks odds comparisons are made to the reduced *relative fortification strength* of Midway.
6. The *relative fortification strength* can be reduced one point for each Turn in which a Japanese battleship stands on the Midway zone of the Search Board.
7. When the *relative fortification strength* reaches zero, the Atago may start invading.
8. When the *relative fortification strength* reaches zero, no planes may use Midway. However, the U.S. player still has full board search until the Atago completes its invasion.
9. If opposing Fighters meet over Midway simply fight a Fighter vs. Fighter combat at the normal odds. If the U.S. player has Fighter squadrons to strip off he may do so (consult Appendix, Midway #5, in this event).

SURFACE COMBAT

1. After both sides have finished calling out their search in Step 4: Search Hoard Procedure—each player is responsible for stating whether he has any ships that he knows of in a zone with an enemy ship. If he does he tells the other player.
2. Any and all air attacks are then resolved in the usual manner.
3. If after air attacks unsunk ships of opposing sides remain in the same zone, play goes to the Battle Board for Surface Combat.
4. A Japanese player places all of his ships, in the *zone* on the Battle Board along the edge nearest him. (In Surface Combat ships may be placed next to each other on the Battle Board. However, you are still allowed only one ship to a rectangle.)
5. The United States player does the same.

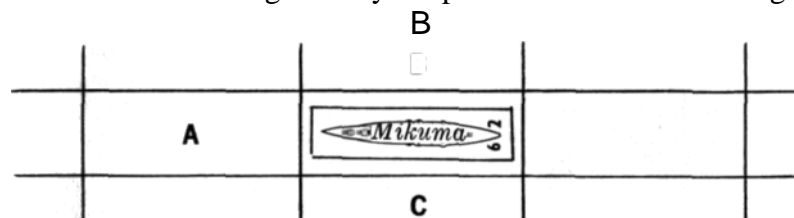
6. The Japanese player moves any or all of his ships one rectangle.
7. The United States player does the same.
8. The Japanese player now fires if the United States ships are within range. Range of ships are as follows: Battleships—4 rectangles; all other ships—3 rectangles. A player may direct the fire of his ships on any or all of his opponent's ships within range. He need not fire at all ships within range. No ship may fire at more than one enemy ship per turn.
9. Odds are obtained by comparing surface combat factors. For instance; if the Nagato-13 and the Kongo-10 fire at the Portland-6, odds are 23-6 (3-1).
10. The die is rolled and the result is obtained from the Surface Combat Table.
11. All hits are recorded on the Hit Record Sheet.
12. The U.S. player fires in the same manner. (On the first Battle Board Turn he could not possibly get within range of a Japanese ship so he doesn't fire on the first Turn.)
13. Either or both players may elect to use the Battle Board Withdrawal Table after each Turn of battle. If a 5 or 6 is rolled, that player has successfully withdrawn from battle and play immediately reverts to Search Board Procedure, Step 1. In this event, check off one Turn on the Time Record.
14. If neither player withdraws, repeat Steps 6 through 13. Do not mark off time.
15. If the Japanese player sinks a U.S. ship on his portion of a Battle Board Turn, that U.S. ship still fires on his portion of that Turn because in reality these Turns would be simultaneous.
16. All rules regarding hits scored under air attack also hold under surface combat.
17. After 4 Battle Board turns are completed a regular Turn is marked off on the Time Record. Players then go through the regular Search Board Procedure including movement and air attack. EXCEPTION: Ships engaged in the previous surface combat may not move. However, all other ships may move two zones and those within two zones of the previous surface combat zone may move into that zone and engage on the Battle Board.

OPTIONAL RULES

These rules may be added if additional realism is desired.

1. If any ship has received hits totaling one less than the normal needed to sink her, the ship loses all fire power (i.e. screening value and surface combat value) and its speed is reduced to one zone per Turn.
2. During air attack, a player may attack an enemy ship with Torpedo Bombers from the rectangle directly in front of the bow of the ship IF OTHER Torpedo Bombers are simultaneously attacking the ship from one of the beam rectangles.

Example: Rectangle A in the diagram below may be used to attack the *Mikuma* if either rectangle B or C or both are being used by Torpedo Bombers in attacking her.



This rule allows for increasing the probability of sinking ships and also simulates the "anvil" Torpedo attack method used with much success in the Pacific campaigns. When

attacking an enemy ship, Torpedo planes would attack with torpedos from the beam while another group of planes would drop a spread of torpedoes toward the oncoming bow of the ship so that if she turned to avoid the torpedos aimed at her side she would be perpendicular to those originally aimed at her bow.

3. During air attack, a player whose attacking group of planes are being fired at may break down an attack against the same ship into *waves*. For instance, suppose 8 Dive Bombers attack the New Orleans (Screening Value — 3) while they, themselves, are being fired at by either the New Orleans or another ship within range. Normally, odds would be 8-3 (2-1). But, if 2 waves go in of 6 squadrons in the first wave and 2 squadrons in the second wave, there are two battles. The first wave odds are 6-3 (2-1) and the second wave odds are 2-3 (1-2) . . . thus there is a chance of scoring an additional *hit* upon the New Orleans. Note, however, that the New Orleans is allowed to apply its screening value in *both* battles. At first glance, this seems contradictory to the rule : Battle Board Procedure, Step 9; that states that a ship's, "entire screening value must be used against one and only one attacking group of planes." However, this situation is different in that the waves consist of attacks from that "one attacking group of planes," the 8 Dive Bomber group in the above example.

HISTORICAL COMMENTARY



OFFICIAL U.S. NAVY PHOTOGRAPH

by Rear Admiral C. Wade McClusky, U.S.N. **(Ret.)**

The following is an eyewitness account written by Rear Admiral C. Wade McClusky. Admiral McClusky was the Air-group Commander aboard the Carrier ENTERPRISE during the actual battle and, himself, led the initial bombing that resulted in the sinking of several Japanese Carriers. The following commentary is only part of the story. The Admiral modestly neglects to tell you what exhaustive research from additional historical sources disclosed to the Avalon Hill design staff: that "Lt. Comdr." C. Wade McClusky's methodical and tenacious pursuit of the enemy was probably the most important contributory factor toward the success of the battle.

On the ENTERPRISE, reveille came early that fateful morning of 4 June 1942, 3:30 a.m. to be exact. Breakfast was served as usual but the usual quips were missing. Rather a hushed note of expectancy prevailed throughout the wardroom.

We pilots waited impatiently in our respective "ready rooms". Finally orders came from Flag Plot. The position of the enemy striking force was given as of 0930 (based on a 0810 contact report) as Lat. 30-05N, Long. 179-03W, heading 135°, speed 25 knots. My orders were to make a Group attack on this Force. Radio silence was to be maintained until sight contact with the enemy made. That was the extent of my instructions. The HORNET Group was likewise to be launched and although the HORNET Group Commander was senior, no command relationship or coordination between the groups was prescribed. No information was received to indicate how the YORKTOWN Group was to participate. So with this meager information we manned our planes on the flight deck.

At 0902, the ENTERPRISE launched a combat patrol of 8 Wildcats (Grumman F4F's). At 0906, the dive bombers started launching. This group composed of my group section, 3 SBD's, Scouting SIX and Bombing SIX, for a total of 33 SBD's. We rendezvoused and circled the carrier waiting for the Torpedo Squadron and fighter escort. Action seemed to come to a standstill on the ENTERPRISE. Finally, at 0945, by flashing light signal, I was ordered to "proceed on mission assigned". No information was given as to why the torpedo planes and fighters were delayed. This meant, of course, that we would be without fighter protection, a rather serious predicament. The Dauntless, as the SBD was called, on account of its slow speed, was an obsolescent plane at the time of Pearl Harbor. Climbing to gain altitude, I led this small force on a southwesterly course and figured to

intercept the enemy about 1120. At our departure time they were believed to bear about 240°, distance 155 miles and heading toward Midway at 25 knots. Our Task Force was to maintain a course of 240° to close the enemy except when flight operations dictated otherwise.

Arriving at the estimated point of contact the sea was empty. Not a Jap vessel was in sight! A hurried review of my navigation convinced me that I had not erred. What then was wrong! With the clear visibility it was a certainty we hadn't passed them unsighted. Allowing for their maximum advance of 25 knots, I was positive they couldn't be in my left semi-circle, that is, between my position and the island of Midway. Then they must be in the right semi-circle, had changed course easterly or westerly, or most likely, reversed course. To allow for a possible westerly change of course, I decided to fly west for 35 miles, then to turn northwest in the precise reverse of the original Japanese course. After making this decision, my next concern was just how far could we go. We had climbed, heavily loaded, to a high altitude. I knew the planes following were probably using more gas than I was. So with another quick calculation, I decided to stay on course 315* until 12:00 o'clock, then turn northeasterly before making a final decision to terminate the hunt and return to the ENTERPRISE.

Call it fate, luck, or what you may, because at 11:55 I spied a lone Jap cruiser scurrying under full power to the northeast. Concluding that she possibly was a liaison ship between the occupation forces and the striking force, I altered my Group's course to that of the cruiser. At 12:05 that decision paid dividends.

Peering through my binoculars which were practically glued to my eyes, I saw dead ahead about 35 miles distance, the welcome sight of the Jap carrier striking force. They were in what appeared to be a circular disposition with 4 carriers in the center, well spaced, and an outer screen of 6 to 8 destroyers and inner support ships composed of 2 battleships and either 4 or 6 cruisers. At my altitude positive identification except for the carriers was nearly impossible.

I then broke radio silence and reported the contact to the ENTERPRISE. Immediately thereafter I gave attack instructions to my Group. Figuring that possibly the HORNET Group Commander would make the same decision that I had, it seemed best to concentrate my two squadrons on two carriers. Any greater division of the bomb-load we had might spread out the damage but I believed would not sink or completely put out of action more than two. Picking the two nearest carriers in the line of approach, I ordered Scouting SIX to follow my section in attacking the carrier on the immediate left and Bombing SIX to take the right-hand carrier. These two carriers were the largest in the formation and later were determined to be the KAGA and the AKAGI. As a point for later mention, after radio silence was broken, LT. "Dick" Best, skipper of Bombing SIX, radioed that he was having oxygen trouble, had dropped to 15,000 feet and would remain at that altitude to commence the attack. One remarkable fact stood out as we approached the diving point—not a Jap fighter plane was there to molest us. Our reasoning attributed this to the one-track Jap mind whose principal fear was the torpedo plane and defeat they had sustained by that plane in the Coral Sea.

It was at 1222 when I started the attack, rolling in a half-roll and coming to a steep 70° dive. About half-way down, anti-aircraft fire began booming around us—our approach being a complete surprise up to that point. As we neared the bomb-dropping point, another stroke of luck met our eyes. Both enemy carriers had their decks full of planes which had just returned from the attack on Midway. Later it was learned that about the time we had discovered the Jap force, an enemy seaplane had detected our forces. Apparently then, the planes on deck were being refueled and re-armed for an attack on our carriers. Supposing then, we, Air Group SIX, had turned southward toward MIDWAY as the HORNET Group did—I can still vividly imagine the ENTERPRISE and HORNET at the bottom of the sea as the YORKTOWN was some three days later.

In the meantime, our bombs began to hit home. Scouting SIX obtained at least eight direct hits. The first division of Bombing SIX obtained at least three direct hits on their assigned target with 1,000 lb. bombs. Both carriers were then enveloped in masses of flames and smoke. The second and third divisions of Bombing SIX, in accordance with squadron doctrine, then divided their attack between both carriers, obtaining many hits. Violent explosions resulted.

The story now for awhile will have to be an individual telling. I leveled off at mast head height, picked the widest opening in their screen and dropped to deck-level, figuring any anti-aircraft fire aimed at me would also be aimed at their own ships. All their ships fire must have been pretty busy because I was well through the screen before I noted bursting shells creeping up behind. With the throttle practically pushed through the instrument panel, I was fortunate in avoiding a contact with death by slight changes of altitude and varying the getaway course to right and left.

Time now to relax and figure my navigation to the home carrier. But not for long! It was quick work to figure the return course and as I raised my head from the plotting board, a stream of tracer bullets started chopping the water around the plane. Almost immediately my gunner, W. G. Chochalousek, in the rear seat, opened fire. Then a Jap "Zero" zoomed out of range ahead of me. A hurried glance around found another Zero about a thousand feet above, to the left and astern, about to make another attack. Remaining at 20 feet above the water, I waited until the attacking plane was well in his dive then wrapped my plane in a steep turn towards him. This not only gave him a more difficult deflection shot but also enabled my gunner to have free room to maneuver his guns. Then ensued about a 5 minute chase, first one Zero attacking from the right, then the second from the left. Each time I would wrap up towards the attacker with Chochalousek keeping up a constant return fire. Suddenly a burst from a Jap seemed to envelope the whole plane. The left side of my cockpit was shattered and I felt my left shoulder had been hit with a sledge hammer. Naturally enough it seemed like the end, we sure were goners. After an undeterminable period, probably only two or three seconds, I realized there was an unusual quietness except for the purring engine of the old Dauntless. Grasping the inner phone I yelled to Chochalousek, but no answer. It was difficult to turn with the pain in my left shoulder and arm, but I finally managed and there was the gunner, facing aft, guns at the ready and unharmed. What happened was that he had shot down one of the Zeros (probably the one that got the big burst in on us) and the other decided to call it

quits.

When we got back we found that our plane had been hit about 55 times, including 3 large hits by 20 millimeter shells, and, to boot, our rudder was peppered with our own 30 caliber bullets. A new twin mount 30 caliber free gun had just been issued, a spread between barrels of about eight inches and our enterprising gunner figured he could fire straight aft on *both* sides of the rudder at the same time. Fortunately, the effect wasn't vital.

Back on course again, I began a slow climb, anxiously peering about for our Task Force. At 1320 I had reached 1,000 feet and the spot I figured should be the rendezvous point. Nothing was in sight. Still climbing, I called the ENTERPRISE and asked if they had a change in position. Almost immediately "Ham" Dow's voice came back from Flag Plot stating simply "Wait". At 5,000 feet I began to get a faint signal from my automatic navigational radio beam, a special device that gave an approximate course back to the source of transmission. While orientating to this new course, "Ham" Dow came in by radio giving a "new" position for the Task Force. This proved to be about 60 miles south of where they were supposed to be. It has always been a mystery to me, why, after radio silence was broken, they hadn't enlightened us poor pilots on their subsequent changes of courses or position. Who knows, maybe some of those lost due to running out of fuel might have returned!

Some 20 minutes later I spotted, in the distance, our Task Force and headed for the first carrier I could see. I dropped down to the landing circle height, wheels and tail hook down, ready to land aboard. While on the down-wind leg, about a minute before landing, it dawned on me that this was the sister-ship YORKTOWN and not the ENTERPRISE. A glance at my gas gauge showed the pointer waivering around 5 gallons. With fingers crossed, I pulled off and headed for the ENTERPRISE, then about 5 miles away. Talk about luck, this was my day. I made a straight-in approach on the ENTERPRISE and landed aboard. The Landing Signal Officer claims he waved me off, but I didn't see it and furthermore, figured I didn't have enough gas to go around again anyway. So, I taxied up the deck, was stepping out of the plane when what happened! The YORKTOWN on whose deck I was just about to land, was under heavy attack by bombing and torpedo planes from the fourth Jap carrier, the HIRYU.

Without a word about Torpedo SIX, this phase of telling would not be complete. They were launched at 0950 and like the YORKTOWN and HORNET Torpedo squadrons, proceeded to attack independently. As previously related, the Japs, profiting by their experience in the Coral Sea, developed an excellent Torpedo Defense and in addition, kept all their fighter planes at a low altitude. The majority of Torpedo Planes were shot down before reaching the dropping point. The pilots and men of those planes set an example of moral courage and devotion to duty hard to beat anywhere. Torpedo SIX lost 10 out of 14 planes; Torpedo EIGHT lost all of her 15 but one pilot was saved; the YORKTOWN Torpedo Squadron lost 10 out of 12. From a practical viewpoint, their attack enabled our dive bombers to approach unmolested and consequently score the many devastating hits that meant victory.

Admiral McClusky's eyewitness account ends at this point. Upon his return to the Carrier he was immediately ordered to sick-bay. There were five bullets or parts of bullets imbedded in his left arm and shoulder, four of which remain today (according to the Admiral) leaving no impairment of any sort. Of course, the actual event lasted several days . . . all of it was somewhat anti-climactic. The "fate" of the battle was decided on the initial attack just after noon on the 4th of June.

APPENDIX

The following is a series of questions and answers dealing with unusual situations that occur from time to time.

AIRCRAFT vs. SHIP BATTLE:

1. Must a player use all of his readied planes if he launches an air attack?

Answer: No, he may use only part of them.

2. May a player launch an air strike against a zone in which he thinks there are enemy ships but is not certain?

Answer: Yes, a player may guess where enemy ships are and launch an attack. Sometimes he may wish to launch an air strike just to get readied aircraft off the Carriers when he expects to be attacked himself on that Turn.

3. If after learning of the number of Fighters over an enemy fleet and seeing the disposition of ships that the defender will use on the Battle Board may an attacker call off an attack?

Answer: Yes, he simply says that he does not wish to attack and returns his planes to any Carrier (or Midway for U.S. player) within range. However, he cannot launch these aircraft on the next Turn because they will not be ready. (Even though he did not go through with the attack the planes did fly and must therefore be refueled.)

4. May a player place a ship on an outside rectangle of the Battle Board so that there is no rectangle on one side from which Torpedo Planes may attack?

Answer: No, the defender may not do this unless he has so many ships on the Battle Board that the spacing rule between ships forces him to do so. In this event, the attacker may assume that there is an additional rectangle off the board from which Torpedo Planes may attack. All the normal rules governing combat apply to the imaginary rectangle.

5. In Diagram (A), under Battle Board Procedure—there are two groups of Torpedo Bombers in rectangle E-4. but they are attacking different ships. May one screening ship fire at both of those groups?

Answer: No. Any one ship may only fire at a group of planes in one rectangle attacking one ship.

6. If an attacker launched an attack in which some of the planes had gone a distance so great that they will not be able to return to a base and the attacker suffers combat losses, may he assume that the planes lost in combat were the planes that could not make it back to a base?

Answer: Yes, he may.

7. Since a ship may fire at only one group of attacking planes on a given turn, what happens to a single ship caught and attacked alone simultaneously by more than one group of aircraft?

Answer: The ship may fire only at one group and all remaining groups therefore attack un-fired at. Thus, if two groups of 5 Squadrons attack a ship simultaneously that ship would be automatically sunk.

8. What happens if Fighters are sent with Dive Bombers and Torpedo Planes during an attack and they meet no enemy Fighters on CAP over enemy ships?

Answer: They do nothing. They may not attack the enemy ships since they carried no bombs.

CARRIER CAPACITY:

1. What happens if planes returning from an attack find that the Carrier they left has been sunk on that Turn by the enemy?

Answer: They may land on any other Carrier within range that has room. If other Carriers do not have room, they are lost.

2. In order to make room for returning planes, may a player throw overboard other aircraft on a Carrier?

Answer: Yes.

3. May a player conceal from his opponent the number and types of aircraft he has on a particular Carrier?

Answer: Yes, this is done by turning the Aircraft Counters upside down on the squares under the names of the Carriers. Also, a player may have many substitute counters piled on one square in order to make his opponent think there are more aircraft on one Carrier than on another.

FIGHTERS:

1. How far can Fighters go in one Turn?

Answer: Fighter range is the same as that of Dive Bomber and Torpedo Planes.

2. See Question 8 under Aircraft vs. Ship Battle section, and Question 5 under Midway section.

MIDWAY:

1. May ships move on the Midway and Kure Search Board zones?

Answer: Yes, these zones are treated the same as any other ocean zone.

2. May Midway based planes land on Carriers?

Answer: Yes, and Carrier based planes may land on Midway.

3. What happens, if the Japanese player launches an air attack against Midway aimed at reducing its relative fortification strength (Tournament game, only) and it so happens that the U.S. player has ships on the Midway Search Board zone?

Answer: The U.S. player must tell the Japanese player before he goes through

with the Midway bombing. The Japanese player then has the option of attacking the ships or the island or both. However, in this one case, Torpedo Planes are used in the same manner as Dive Bombers since they would be armed with bombs instead of Torpedos.

4. Does the Japanese player lose any aircraft squadrons when he bombs Midway Island? Answer: No, unless he runs into enemy Fighters over Midway. (See Question 5.)

5. What happens if the Japanese player attacks Midway without Fighter protection and runs into U.S. Fighters over the island? Answer: The Japanese completes the bombing procedure outlined under the Midway Reduction section. Then he must eliminate a total of attacking aircraft squadrons equal to the number of U.S. Fighter Squadrons that were over the island. If the U.S. player stripped off Fighters because he had more than the Japanese player, the Japanese player must remove the excess from among the Dive and Torpedo Planes.

6. What purpose does Kure Island have? Answer: None, it is provided for historical purpose only.

7. Must the Japanese player tell the U.S. player that his ships are on the Midway zone? Answer: Yes.

READYING OF AIRCRAFT:

1. Does the fact that aircraft must always be ready a Turn before attacking mean that they may not fly two turns in a row?

Answer: Yes.

2. May players ready only part of their planes at any given time?

Answer: Yes.

3. What if a ship is attacked and has only a few readied aircraft aboard—does she still sink when receiving the hit which is one less than that normally needed to sink her? Answer: Yes—even if a ship has only one readied squadron aboard she is considered in a ready state.

4. If a player readies only part of his planes,

must he tell his opponent how many or on which Carriers the planes are ready?

Answer: No, he need not tell this to his opponent; however, it would be best if players who are readying only part of their planes write the types, the numbers of squadrons, and the Carriers on which they are placed on a slip of paper and place it aside somewhere so that he may show it to his opponent if it is necessary to verify which Carriers have readied planes on them.

5. Suppose a Carrier that did not have readied planes on it has been hit enough times so that only one more hit is needed to sink her—may she still launch planes or would she sink automatically if she tried to ready planes?

Answer: The Carrier may still operate normally and it would not sink automatically if it attempted to ready planes. (This is still true even if Optional Tournament Version Rule No. 1 is in use.)

6. If a player wishes to transfer planes between Aircraft Carriers, must they be re-readied?

Answer: Yes—and they may not fly the next turn.

7. What happens if a player forgets to tell his opponent whether his planes are ready on a given Turn and his opponent attacks his Aircraft Carriers?

Answer: The planes on the given Carrier are considered to be in the condition which they were the last time the player made an announcement regarding their readied condition.

SURFACE COMBAT:

1. What happens if surface combat arises in which the Japanese player has more than 17 ships (the width of the Battle Board) to bring on?

Answer: Simply bring on 17, move them their first Battle Board Turn, then place the rest on vacant rectangles behind them. The Japanese player must move enough ships to make room for the excess over 17.

2. What happens if ships still engaged in surface combat from a previous turn undergo air attack on the next turn?

Answer: Only the player undergoing the air attack places his ships on the Battle Board. If both players are attacked they go through the normal air attack procedure separately.

MISCELLANEOUS:

1. When a player launches an attack against the enemy, he must tell him from which zone his planes came and the zone to which they are going. Must he tell his opponent this same information if he merely transfers planes between Carriers or Midway? Answer: No.

2. If the U.S. Player is more experienced can anything be done to give the Japanese player a better chance without upsetting the balance of the game too much?

Answer: Yes, increase the Japanese air search to 4 areas and the U.S. air search to 5 areas.

3. If the Japanese player is more experienced what can be done for the U.S. player? Answer: Incorporate the B-17 Bomber Attack Table.

B-17 Attack Table

Die Roll	1	2	3	4	5	6
Result	MISS	MISS	MISS	MISS	3 HITS	5 HITS

At any time, either once or twice a day as the players choose, the U.S. player may launch a B-17 attack against any one zone on the Search Board. The attack is written during the writing of Operations. The Japanese player tells the U.S. player the names of ships in that zone and the die is rolled to get the result from the Table for any one ship the U.S. player chooses as his target. Note: When Midway Island's relative fortification strength has been reduced to zero, B-17 attacks are no longer allowed.

MIDWAY REPLACEMENT PARTS LIST

1. GAME BOX, 11" x 14" _____ \$1.00
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SEARCH BOARD SCREEN

Surface Combat Results							
Die	1-3	1-2	1-1	2-1	3-1	4-1	5-1
1	MISS	MISS	MISS	1 HIT	2 HITS	3 HITS	5 HITS
2	MISS	MISS	1 HIT	1 HIT	2 HITS	3 HITS	6 HITS
3	MISS	MISS	1 HIT	2 HITS	3 HITS	4 HITS	6 HITS
4	MISS	1 HIT	1 HIT	2 HITS	3 HITS	5 HITS	SUNK
5	MISS	1 HIT	1 HIT	3 HITS	3 HITS	6 HITS	SUNK
6	1 HIT	1 HIT	2 HITS	3 HITS	4 HITS	SUNK	SUNK

Ships attacked at odds greater than 5-1 are automatically sunk — ships attacking at worse than 1-3 score no hits.

Battle Board Withdrawal	
1	Unsuccessful — Continue Battle
2	Unsuccessful — Continue Battle
3	Unsuccessful — Continue Battle
4	Unsuccessful — Continue Battle
5	Successful — Revert to Search Procedure
6	Successful — Revert to Search Procedure

Fighter vs. Fighter Results					
Die	1-3	1-2	1-1	2-1	3-1
1	Lose 1 Def , Lose 3 Alt,	Lose 3 Def. Lose 3 Alt.	Lose 6 Def. Lose 3 Att,	Lose 8 Def. Lose 3 Att.	Lose 10 Def. Lose 1 Att.
2	Lose 1 Def. Lose 4 Att.	Lose 3 Def. Lose 3 Att,	Lose 4 Def. Lose 4 Att.	Lose 7 Def. Lose 3 Att.	Lose 7 Def. Lose 1 Att.
3	Lose 1 Def. Lose 4 Att.	Lose 3 Def. Lose 4 Att.	Lose 5 Def. Lose 5 Att.	Lose 5 Def. Lose 3 Att.	Lose 5 Def. Lose 1 Att
4	Lose 1 Def. Lose 5 Att.	Lose 3 Def. Lose 5 Alt.	Lose 5 Def. Lose 5 Att.	Lose 4 Def. Lose 3 Att.	Lose 4 Def. Lose 1 Att
5	Lose 1 Def. Lose 7 Att.	Lose 3 Def. Lose 7 Att	Lose 4 Def. Lose 4 Alt.	Lose 3 Def. Lose 3 Att.	Lose 4 Def. Lose 1 Att.
6	Lose 1 Def. Lose 10 Alt,	Lose 3 Def. Lose 8 Att.	Lose 3 Def. Lose 6 Att.	Lose 3 Def. Lose 3 Alt.	Lose 3 Def. Lose 1 Att

Upper result represents number of Squadrons (Attack Factors) of Defender's
Fighter loss — Lower result represents Attacker's Fighter loss.
Fighters attacked at odds greater than 3-1 are ALL lost with no loss to attacking
Fighters—Fighters attacking at worse than 1-3 are ALL lost with no loss to
defending Fighters.

MIDWAY HIT RECORD

UNITED STATES SHIPS

Enterprise 10

Minneapolis 4

Astoria 3

Portland 3

Hornet 10

New Orleans 4

Northampton 3

Atlanta 2

Yorktown 10

Vincennes 4

Pensacola 3

Place a check mark in one box for each HIT. When all boxes contain check marks, ship is sunk and the opposing player receives the points printed next to that ship's name. For example, 5 HITS sinks the American Carrier Enterprise for which the Jap player receives 10 points.

TIME RECORD

0500 June 3*	0700	0900	1100	1300	1500*	1700	Night, June 3	Night, June 4	0500*	0700	0900	1100	1300	1500	1700*	Night, June 4	Night, June 5	0500	0700	0900	1100	1300	1500	1700	Night, June 5	Night, June 6	0500	0700	0900	1100	1300	1500	1700

Check off one box at the conclusion of each turn as outlined in the instructions. Asterisks (*) after certain "hours" indicate time of arrival of ships on the Search Board. All newly arriving ships come on board at the beginning of the specified "hour" and are placed on any of the shaded squares. Arrival hours are as follows:

AT START, 0500: All U.S. ships; Jap ships—Akagi, Kaga, Soryu, Hiryu, Tone, Chikuma, Haruna, Kirishima, Nagara

1500, June 3: Mikuma, Mogami, Kumano, Suzuya

0500, June 4: Kongo, Hiei, Atago, Chokai, Myoko, Hagura, Zuiho, Yura

1700, June 4: Yamato, Nagato, Mutsu, Hosho, Sendai

OPERATIONS

MIDWAY HIT RECORD

JAPANESE SHIPS

Akagi 10

Kaga 10

Hiryu 8

Soryu 8

Zuiho 6

Hosho 4

Yamato 10

Nagato 8

Mutsu 8

Haruna 6

Hiei 6

Kirishima 6

Kongo 6

Atago 4

Haguro 3

Myoko 3

Chikuma 3

Chokai 3

Kumano 3

Mikuma 3

Mogami 3

Suzuya 3

Tone 3

Nagara 2

Sendai 2

Yura 2

OPERATIONS