



Space Weapons

Space weapons are produced in many different forms and at many different tech levels, but all have the same goal: to defeat other ships in battles, and to attack targets on worlds.

The broad array of space weapons reflects the many different ways weapon technology can operate. The interplay between weapons and defenses allows for many different weapon use strategies.

UNDERSTANDING SPACE WEAPONS

Space weapons have a focused purpose: to damage or destroy enemy spacecraft, or to damage targets on worlds. Space Weapons fall into four distinct categories or operating principles.

Missiles launch a physical object at the target. Missile Launchers, Slug Throwers, Kinetic Kill Missiles, Ortilery, and Rail Guns. Small Craft as rams fall into this category.

Beams project concentrated energy at the target. Particle Accelerators, Plasma and Fusion Guns, Meson Guns, Lasers, Tractors and Pressors, and Disruptors.

Fields project an area of effect on the target. Stasis, Inducers and Dampers.

Data broadcasts or beamcasts data at the target. CommCaster and DataCasters.

WEAPON TYPES
Missiles
Beams
Fields
Data

IDENTIFYING SPACE WEAPONS

R= or S=					
Stage	Range	Mount	Type	-TL	(C+S)
Adv LR T1 Msl -11 (10)					
Advanced Long Range Single Turret Missile-11 (10)					

Space Weapons are identified by a LongName with enough detail to define its usage. The LongName includes:

Stage - Range - Mount - Type - Tech Level (+C+S)

Elements of the LongName may be omitted if not applicable.

Stage is the weapon's position in the spectrum of sophistication in the developmental life cycle. It is possible for Stage to be blank. For example, Prototype, Basic, or Advanced.

Range is the weapon's distance factor in attacking targets. Weapons may use Space Ranges or World Ranges. Range in either case uses a term which translates to a range band.

Mount states the type of weapon mount used with the weapon.

Weapon Name details the precise nature of the mechanism and provides insights into how it operates.

Tech Level identifies the Technological Level at which the Weapon is commonly manufactured. TL is required.

C+S. A weapon identifier may have an additional element indicating the Controlling Characteristic and Skill level of the operator. If the weapon is controlled by a Gunner, Brain or Computer, the applicable C+S is used. C+S is shown as a plus and a number inside parentheses. For example, the operator assigned to a specific weapons installation is C4=7 and Bay Weapons-3; the weapon LongName includes (+10) for the C+S value.

Until an operator for a weapon is assigned, (+C+S) is omitted).

IDENTIFYING MISSILES

Stage	Missile	-Size	Type	Guidance
Missile-5X HW				
Missile-5 Explosive Warhead Hard-Wired Guidance				

Missiles are a special case and are identified separate from their Launcher. A Missile LongName consists of

Missile - Size - Warhead - Guidance.

When a missile is used, it takes its TL and (C+S) from its Launcher.

Missile is the weapon identifier: it is always the word: Missile.

Size is the Missile's Object Size from 1 to 7. For example, Missile-1 is a Bullet.

Type describes the warhead or attack capability. For example, N is Nuclear.

Guidance is the system which controls the missile and directs it to its target. For example, OG is Operator Guided: the Gunner in the Launcher guides the missile to its target. Such a system may include radar guidance, direct joystick control, or some other means.

The Concept of Missile Includes

Traditional missiles, Bullets, various projectiles, Bombs, Deadfall Ordnance, Metal Slabs launched from Rail Guns, and other systems.

THE MOUNTS

The effectiveness of Space Weapons depends in large part on the size of the Weapon Mount. Space Weapon Mounts are the physical structures in which weapons are installed.

Mounts determine the skill required to operate the weapon, the Mod on the Space Weapon Task, and (in most cases) the Hits the weapon inflicts.

Allocating Mounts

Each Type of Weapon requires a minimum size for its Mount (Minimum Mount as noted in the Space Weapon Types Table).

Mounts may be upgraded. Turrets may be upgraded to larger Turrets or to Barbettes. Bays may be upgraded to Large Bays.

But, Particle Accelerators may be upgraded through all larger Mounts.

Limits On The Number of Mounts. Every hull has one Hardpoint per 100 tons. One Mount may be installed at each Hardpoint. In some cases (Main), the Mount will occupy more than the 100 tons associated with that Hard Point. In some cases (Bay or Large Bay), the Mount will occupy much of the 100 tons associated with the Hard Point.

Mount Power. Mounts are self-contained for battle survivability purposes. They carry their own life support (1 week) and their own power modules. They carry their own operating computer (which is networked to the ship's main computer).

Deployable Mounts

A Deployable Mount is a Mount capable of being launched from (and recovered by) a ship.

Only Turret and Barbette can be made Deployable.

Uses. Deployables have a variety of uses. If a deployed turret is targeted enemy fire, damage is restricted to the Deployable. Deployables detected by Sensors do not betray the location of the ship itself. Deployables can serve as Life Pods.

Operations. It can maneuver under its own power (it has G-Drive= 1-G which restricts it to about 5 km from its ship, or within 10 D of a nearby planet S=5 R=10). may be launched from the ship and may maneuver under its own power.

Endurance. Deployables carry life support and power for about two weeks.

Armor. A Deployable Mount is armored the same as the hull.

THE SPACE WEAPON TASK

	TL	Char	Skill	Mod
nD	< T	+C	+S	+M
n =				
Range		Use:	Use:	TSM
(S= or R=)		C4 C5 Wpn		Mount

A Weapon cannot operate beyond its stated Range.

USING SPACE WEAPONS

Weapons may attack targets which their ship has detected. In some cases, weapons (usually missiles) may be launched without a specific target detected or identified.

Space Weapons attack using the Space Weapon Task.

Range determines the number of Dice rolled to hit.

Technology, Characteristic and Skill, and applicable Mods determines the Target Number. The size of the Space Weapon (based on its weapons mount and applied as a Mod) is a major element of the Space Weapons Task.

The Type of weapon determines which defenses and armors it can ignore and which it must overcome.

If the Hits the target and successfully overcomes any armor and protections, it inflicts damage based the Weapon Mount Size.

The Weapon Type determines the type of damage inflicted.

Typical Mods are Weapons Mount and Target Size Modifier (=Target Size minus Range).

CREATING WEAPONS

The abilities and effectiveness of Weapons is determined primarily by Type and Tech Level.

The Weapons available to a ship are determined by the Tech Level of the constructing shipyard (although characters may upgrade their ship's weapons as better ones become available).

Similarly, the Space Weapons available to worlds or bases is determined by its governing tech level.

The Space Weapon Creation Process

Space Weapons are selected from the Space Weapons List and modified by Stage and Range. Tonnage is rounded to the nearest Ton with minimum of 1 ton for Ships and actual tonnage for Small Craft. Costs are not rounded.

1. Base Weapon. Select a Base Weapon Type from the Space Weapon List. Note its Model Letter and Tech Level. Note its base cost and base range.

Note the weapons Minimum Mount.

2. Mount. Select a Mount for the Weapon. The original minimum Mount may be used, or it may be upgraded. Mounts below Bay cannot be upgraded above Dual Barbette.

Note the Mount tons, Mod, Hits, and Cost.

3. Range. Increase or decrease the base Range using the Space Weapon Range Effects Table and note its consequences for Tech Level, Tonnage, and Cost.

A Weapon cannot be improved beyond its maximum range (R=10 for World Ranges; S=12 for Space Ranges).

3. Stage. The base Stage for Weapons is Standard. Increase or decrease the base Stage using the Stage Effects Table and note its consequences for Tech Level, Tonnage, and Cost.

4. C+S. If the operator is known, add Characteristic and Skill.

WEAPONS AND WEAPONS EFFECTS

The array of available Space Weapons ranges from the simple to the complex. The following descriptions provide a basic understanding of the principles and realities of the weapons.

The Weapon Charts. Weapons Attacks-1 and -2 show the ranges at which various weapons operate (including maximum range).

Particle Accelerators

Particle Accelerators project subatomic particles in focused beams. Interaction with the target produces physical and radiation damage.

Particle Accelerators operate in two distinct modes: in space and in atmosphere.

In Space. PAs in space use Space Ranges S=. They have an effective range limit of about S=7, beyond which the particle beam is too dissipated to do damage.

In Atmosphere. PAs operating in atmosphere (that is, attacking a target which is in atmosphere) use World Ranges R=, and shed 1D of damage for each layer of atmosphere the beam penetrates.

Theoretically, a Particle Accelerator at S=7 (its maximum possible range) could attack a target on a world surface). It would use R= 12 because the target is in atmosphere, and its particle beam would shed 1D for Range Band of atmosphere it penetrates, typically Bands 1 to 7. A PA Barbette would lose effectiveness before the beam hit the target; a Main Mount could potentially hit and damage the target.

Slug Throwers

Slug Throwers are heavy duty Guns or Gatlings firing Missile-2 Slugs (either solid or explosive).

Although Size-2 Slugs are technically Missiles, Slug Throwers (Code = B) do not appear on the Defenses: AB AM Mode Table under Attacker; they are not subject to Anti-Missile Defenses.

CommCasters

CommCasters are dedicated information and communications links between the ships.

Sensor Data. Two ships, each with CommCasters can share Sensor Data, and each may attack targets sensed by the other.

Virtual Battery Fire. Ships (each equipped with CommCaster) can attack the same target with weapons of the same Type (but not necessarily the same TL or Mount). The hits inflicted by the weapons are summed.

DataCasters

DataCasters spew vast amounts of data at targets attempting to confuse, distract, or overload enemy sensors. Its transmitters are constantly searching across many communications and sensor bands for opportunities to introduce spurious data.

Sensor Overload. Successful DataCaster Attacks on Sensors or Comms inflict Damage on a specific Sensor or Comm.

Successful DataCaster attacks on non-Sensor, non-Comm locations insert a Virus or an Applet (or multiples).

Applet. An Applet produces annoying spoof messages on the control console associated with the Hit Location. The component in that Location receives Mod -1 for operation.

Virus. A Virus successfully introduced onto a ship disables the Component at the Hit Location.

In each successive Combat Round, the Virus may attack an adjacent Hit Location and succeeds if $1D < \text{Computer} + \text{Virus}$.

For example, a Virus is assigned a value = $1D = 3$. It attacks an adjacent Hit Location Power Plant controlled by Computer/2. It must roll 1D for $2+3$ or less = 5. If successful, that location is disabled.

A Virus is isolated if all computer connections are cut between the Virus disabled locations and all other hit locations. The computers can operate independently; but this step prevents use of batteries and commcasters, and restricts the use of weapons to R=7 or less.

Stasis Projector

A Stasis Projector imposes a series of Stasis Fields (varying in size from 1 cm to 1.5 m) along a line extending from its projector. The fields tend to form around objects; all molecular activity within the field is suspended; time stands still within an active field. The field remains in effect until released. When the field is released, its contents continue unaffected.

However, their connections with the rest of the ship have been severed. The result is a crippling effect on the component Hit Location.

The litter of stasis project or attacks lingers long after the battle. Stasis bubbles filled with battlefield debris can be destabilized with a hand-held Mag Scrambler to reveal their contents: personnel, artifact, ruined equipment, even captured explosions.

Jump Inducer

The Jump Inducer channels the energies of a ship's Jump Drive into disastrous jump-like effect on a target.

The name Jump Inducer is misleading: the weapon induces a misjump of components of a ship. The misjump essentially disintegrates the components.

A Jump Inducer requires an operating on its ship.

Disruptor

The Disruptor suppresses the charge on the electron. Chemical bonds break; compounds disintegrate. With the electron charge suppressed, atomic nuclei exhibit a positive charge and repel their neighbors, creating an expanding cloud of particles.

The Disruptor is a relatively slow weapon. Focused on a target, it boils away armor layers over the course of minutes. Once out of the Disruptor beam's influence, the electrons' negative charge reasserts itself,