SHIP ARMAMENT POINTS

Ship's STR	Spaceship Configuration					Reconfiguration Difficulty
	Full Military	*Para-military*	*Patrol/ Cruise*	*Semi Transport*	*Full Transport*	
d2	4	3	2	1	0	Hard (55)
d4	8	6	4	2	0	Formidable (75)
d6	12	9	6	3	0	Heroic (95)
d8	16	12	8	4	0	Incredible (115)
d10	20	15	10	5	0	Ridiculous (135)
d12	24	18	12	6	0	Impossible (155)

Full Military: This is the configuration of active warships, with minimal cargo space and small crew berths (mostly barracks). Generally, cargo/personnel capacity is around 5% of the ship's tonnage. Only the Alliance central government can legally possess vessels of this configuration.

Paramilitary: This is the configuration of military transports, planetary defense vessels, and some law-enforcement ships. Slightly more space is set aside for personnel, vehicles, or cargo. Generally, cargo/personnel capacity is around 10% of the ship's tonnage. Only recognized planetary governments or individuals closely connected to the Alliance can legally possess vessels of this configuration.

Patrol/Cruise: This is the configuration of many police vessels, exploration ships, and elite private cruisers. Generally, cargo capacity and passenger accommodations are around 20-30% of the ship's tonnage. Technically only planetary and police forces are supposed to possess ships of this configuration, but well-connected individuals know how to get around the law.

Semi Transport: This is the configuration of many commercial vessels and passenger liners. Generally, cargo capacity and passenger accommodations are around 40-50% of the ship's tonnage. It is lawful for any Alliance citizen with a clean record to possess a vessel of this configuration, with proper (or forged) registration.

Full Transport: This is the configuration of most professional commercial vessels. Generally, cargo capacity and passenger accommodations are around 60-80% of the ship's tonnage. Anyone can legally possess a vessel of this configuration, with proper (or forged) registration.

Changing a ship's configuration requires time-consuming mechanical work on the superstructure and interior. Shifting the configuration class by one step (in either direction) is a complex action requiring INT + Mechanical Engineering/Repair checks. Shifting multiple steps requires multiple complex actions. Additional skilled workers provide Direct Assistance to the main checks made by the chief engineer. Installing armaments is shorter work: make INT + Mechanical Engineering/Repair checks at a Difficulty equal to 15 times the number of AP installed. Each complex-action roll represents one full day of work (10 hours). Loading ammunition and missiles onto a ship requires no roll and simply takes 1 person-hour per AP.

Ship Armaments: **Armament Point Cost**:

Ship Armor:
Armor, electromagnetic shielding   1 point per 1 S damage
Armor, ablative plating   2 points per 1 W damage

Ship Cannons:
Autocannon, anti-vehicle (1 lb. shell)   ½ point
Cannon, light (20 lb. shell)   ½ point
Cannon, medium (50 lb. shell)   1 points
Cannon, heavy (100 lb. shell)   2 points
Cannon, super heavy (200 lb. shell)   3 points

Ship Cannon Ammunition:
Autocannon, conventional magazine (400 shells)   ½ point
20 lb. conventional magazine (100 shells)   ½ point
50 lb. conventional magazine (40 shells)   ½ point
100 lb. conventional magazine (20 shells)   ½ point
200 lb. conventional magazine (10 shells)   ½ point

20 lb. electromagnetic magazine (100 shells)   1 point
50 lb. electromagnetic magazine (40 shells)   1 point
100 lb. electromagnetic magazine (20 shells)   1 point
200 lb. electromagnetic magazine (10 shells)   1 point

Ship Missiles:
Missile Tube   ½ point (each)
Rocket, light   1 point per 40 missiles
Rocket, heavy   1 point per 20 missiles
Torpedo, light   1 point per 20 missiles
Torpedo, heavy   1 point per 12 missiles
Torpedo, thermonuclear   1 point per 6 missiles
Torpedo, fusion   1 point per 3 missiles
Space seeker missile   1 point per 4 missiles
Ship-killer missile   1 point per 2 missiles
EMP missile, light   1 point per 10 missiles
EMP missile, heavy   1 point per 6 missiles
Interceptor missile   1 point per 20 missiles
Orbital bomb, anti-installation   1 point per 8 bombs
Orbital bomb, city-pounder   1 point per 2 bombs

Miscellaneous Systems:
Advanced Electronics Arrays   1 point/3 points
Advanced Computer Core   1 point/3 points

ARMAMENT DESCRIPTIONS

Electromagnetic Shielding: By coating the hull with non-conductive material and running grounding wires through the subsurface, this armor absorbs a portion of Stun damage from electromagnetic ammunition and missiles and protects against internal power surges from impact (the Stun portion of Basic damage). Additionally, electromagnetic shielding protects against solar and planetary radiation (1 S armor negates mild radiation; 2 S armor negates moderate radiation; 3 S armor negates heavy radiation; 4 S armor negates severe radiation).

Ablative Plating: By covering the hull with durable, flexible polymer-ceramic plates, this armor absorbs a portion of Wound damage from kinetic impact, explosive force, and heat.

Autocannon: This swivel-mounted heavy machine gun is automated, sensor-guided, and capable of a blistering rate of fire. They can only make autofire attacks (no single or burst shots). They lay down autofire out to a range of up to 1,000 feet; the width of the target arc is 5 feet per 10 rounds spent (up to 100 feet for 200 rounds). Autocannons are vehicle-scale weapons that inflict 1d2 W (x10 against human targets).

Ship Cannons: Ship-mounted guns fire only at point-blank/close or short range (spaceship scale). A cannon is capable of firing either type of ammunition of the appropriate weight rating. Changing the type of ammunition is an Average (35) complex action (usually rolling the loader's STR + Heavy Weapons/Ship Cannons or Mechanical Engineering), assuming the other type of ammunition is nearby and ready to be loaded. Ship cannons are capable of firing bursts of shells, making up to three attack rolls in a round.

Conventional Ammunition: Rocket-powered, explosive shells that inflict Wound damage (d2 for 20 lb., d4 for 50., d6 for 100, d8 for 200). Shells less than 10 lbs. (autocannon ammunition) are meant for anti-vehicle/anti-personnel defensive fire; they inflict no spaceship-scale damage (1 lb. shells inflict 1d2 W against vehicles, 1d2x10 W against personnel).

Electromagnetic Ammunition: Charged shells that generate an EMR pulse on impact and inflict S damage to ships and vehicles (d2 for 20 lb., d4 for 50, d6 for 100, d8 for 200).

Missile Tube: A tube can hold only one type of missile at any given time. Changing out the type of missile loaded is a Formidable (75) complex action (usually rolling the loader's AGI + Heavy Weapons/Missiles or Mechanical Engineering). Hence, many warships are equipped with multiple missile tubes (often one for each type of missile carried). Each tube can fire only one missile in a round. Maximum range (spaceship scale) depends on type of missile fired.

Rocket, Light: Short-range with a 20 lb. explosive warhead (d2W). If the attack roll fails by a near miss (1) in atmosphere, the explosive shockwave still damages the target (1 W).

Rocket, Heavy: Short-range with a 100 lb. explosive warhead (d6W). If the attack roll fails by a near miss (3 or less) in atmosphere, the explosive shockwave still damages the target (1 W).

Torpedo, Light: Medium-range with a 50 lb. explosive warhead (d4W). If the attack roll fails by a near miss (2 or less) in atmosphere, the explosive shockwave still damages the target (1 W).

Torpedo, Heavy: Medium-range with a 200 lb. explosive warhead (d8W). If the attack roll fails by a near miss (4 or less) in atmosphere, the explosive shockwave still damages the target (1 W).

Torpedo, Thermonuclear: Medium-range with a 500 lb. explosive warhead (d10W). If the attack roll fails by a near miss (5 or less) in atmosphere, the target is still damaged by the explosive shockwave (1 W) and radiation burst (1 S).

Torpedo, Fusion: Medium-range with a 1,000 lb. explosive warhead (d12W). If the attack roll fails by a near miss (6 or less) in atmosphere, the target is still damaged by the explosive shockwave (1 W) and radiation burst (1 S).

Space Seeker Missile: Long-range with a 500 lb. kinetic warhead (d10W) and fire-and-forget guidance (if it misses, make another attack roll the next round at –1 step or even a third attack roll in the following round at –3 steps).

Ship-killer Missile: Long-range with a 1,000 lb. kinetic warhead (d12W) and fire-and-forget guidance (if it misses, make another attack roll the next round at –1 step or even a third attack roll in the following round at –3 steps).

EMP Missile, Light: Medium-range with a 100 lb. magnetic warhead (d6S).

EMP Missile, Heavy: Medium-range with a 500 lb. magnetic warhead (d10S).

Interceptor Missile: Short-range with a 200 lb. jammer warhead (d8S). After launch, it will home in on an incoming missile or missile-launching enemy ship. Roll its d8 damage vs. the damage value of the target missile or the WIL of the ship, knocking out the missile or neutralizing launcher if the jammer's roll wins.

Orbital Bomb, Anti-Installation: Conventional explosive charge meant for use inside atmosphere, a 1,000-lb. bomb with enough concussive force to knock out a typical building.

Orbital Bomb, City-Pounder: Incendiary plasma charge meant for use inside atmosphere, a 4,000-lb. bomb that generates enough intense heat to incinerate several city blocks.

Advanced Electronics Arrays: Hypersensitive deep-space receivers and scanners that provide a +1 step bonus to the ship's Alertness for detecting ships, missiles, and objects in space. For 3 points, there are even more and bigger arrays that provide a +2 step bonus.

Advanced Computer Core: High-powered, complex computer mainframes and processing units that provide a +1 step bonus to the ship's Intelligence for analyzing tactical data. For 3 points, the core has even more and better processors that provide a +2 step bonus.

SPACESHIP COMBAT

Initiative: Individual characters roll their own initiative and perform their ship-based actions on their turns. Ships only roll for initiative when conducting automated or self-regulating maneuvers or operations.

Piloting in Combat: The roll for performing ship maneuvers is either the ship's or the pilot's Agility (whichever is lower) + the pilot's Pilot skill/specialty (e.g., a pilot with d10 AGI flying a d6 AGI ship normally rolls d6 as the Attribute die for maneuvers). However, a successful Intelligence + Mechanical Engineering check ("open up that thrust value") at a Difficulty step equal to the number of steps between the pilot's Attribute and the ship's Attribute can allow a pilot to exceed a spaceship's limitations and use his full Attribute die for the current scene.

Ship-Based Weapons: The attack roll for using manual-fired weapons (like cannons) is the user's AGI + Heavy Weapons. For automated or computer-launched weapons (like autocannons or missiles), the attack roll is either the ship's or the user's ALE (whichever is lower) + the user's Heavy Weapons. Most normal modifiers for attack rolls also apply to ship-based combat (including taking extra actions).

Ship Combat Range: Ship-based weapons are rated for particularly ranges: point-blank/close (up to 3 miles); short (6 miles); medium (10 miles); long (16 miles); extreme (25 miles). The attack roll range modifier depends on whether the target is under, within, or outside the weapon's rated maximum range:

Relative Range	Modifier
2+ range categories under the rated maximum	+1 step
1 range category under the rated maximum	+0 step
Within the maximum range category	–1 step
Beyond rated maximum range (GM's discretion)	–2 step

Ship Defenses: When under attack, the pilot can take **evasive maneuvers** (a spaceship's version of dodging) by rolling either the ship's or his/her AGI (whichever is lower) + his/her Pilot skill. Subtract the result from the attack result. A weapons operator can **launch a jammer warhead** against an incoming missile by rolling the ship's or his/her ALE + his/her Heavy Weapons; if the result equals or exceeds the attack result then roll off the damage ratings of the two missiles, and if the jammer's damage roll equals or exceeds the attacking missiles roll the latter is destroyed. An electronics operator also can use the ship's sensor and comm systems to attempt to **confuse incoming missiles**. Roll either the ship's or his/her INT (whichever is lower) + his/her Technical Engineering; if the result exceeds the attack result then the incoming missile misses the ship. Any defensive maneuver can be performed even when it is not a character's turn to act, though the action will count against that character on his/her next turn. If the pilot doesn't take a defensive action, the ship relies on its speed and momentum for **innate defense** (ship's Agility).

Ship Damage Penalty: When a ship's Wound damage taken is equal to or greater than half its Life Points, the ship is seriously damaged and suffers a –2 step penalty to all Attributes.

Incapacitated Ships: When total damage taken equals or exceeds a ship's Life Points, the ship must immediately make an Average VIT + WIL roll or become incapacitated. Every time the ship suffers any additional damage (until total damage is again below its Life Points), it must immediately make the check again with a cumulative +4 to the Difficulty. An incapacitated ship is temporarily out of control and under emergency power – drifting along under inertia (making it a relatively stationary Easy target), incapable of performing piloting maneuvers, and unable to fire any weapons. Once total damage is again below the ship's Life Points, it immediately becomes fully operational again.

Excessive Stun Damage: If a ship continues to take Stun damage after being incapacitated (or beyond the ship's maximum total Life Points), additional points of Stun damage automatically become Wound damage. Conduits explode, sparks fly, and fires burn the interior hull.

Dying Ships: When total Wound damage taken equals or exceeds a ship's Life Points, the ship must immediate make an Easy VIT + WIL roll. Failure means the ship vents atmo and breaks apart. Success means the ship holds together for a little bit longer. The roll must be repeated every minute of game time (10-20 rounds) with a cumulative +4 to the Difficulty. If total Wound damage ever reaches double the ship's Life Points, the ship immediately explodes.

Stabilizing a Dying Ship: The crew of a dying ship can race against time to seal off depressurized compartments, put out fires, and generally fight to keep the ship from ripping apart. The crew makes INT + Mechanical Engineering/Repair rolls each round as a complex action at a Difficult based on the Wound damage total (same as surgery, p. 159). If the crew succeeds on the complex action (before their ship breaks apart or explodes), the ship stabilizes and no longer must make VIT + WIL rolls every minute.

Repairing Ship Stun Damage: Every hour, the ship's crew can repair 1 S damage automatically. In emergencies, the crew can try to repair stun damage faster (a spaceship's version of "second wind"). The crew makes ALE + Mechanical Engineering/Repair rolls each round as a Hard complex action (55). When successful, the spaceship rolls its VIT or WIL (whichever is higher) and immediately recovers that number of Stun points. Each additional attempt to do this in the same scene increases the Difficulty of the complex action by one step.

Repairing Ship Wound Damage: Repairing Wound damage is like surgery – the crew rolls INT + Mechanical Engineering at a Difficulty based on the Wound damage total (same as surgery, p. 159). This roll represents several hours of work, and must be repeated until successful in order to begin restoring the ship. After the roll is successful, 1 W is immediately recovered. Further damage can be repaired automatically at the rate of 1 W per day, as long as the ship is at an appropriate facility with necessary supplies and equipment (such as a space dock or skyplex).