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[SPLASH IMAGE 8 ½ x 11] (Cover Art)

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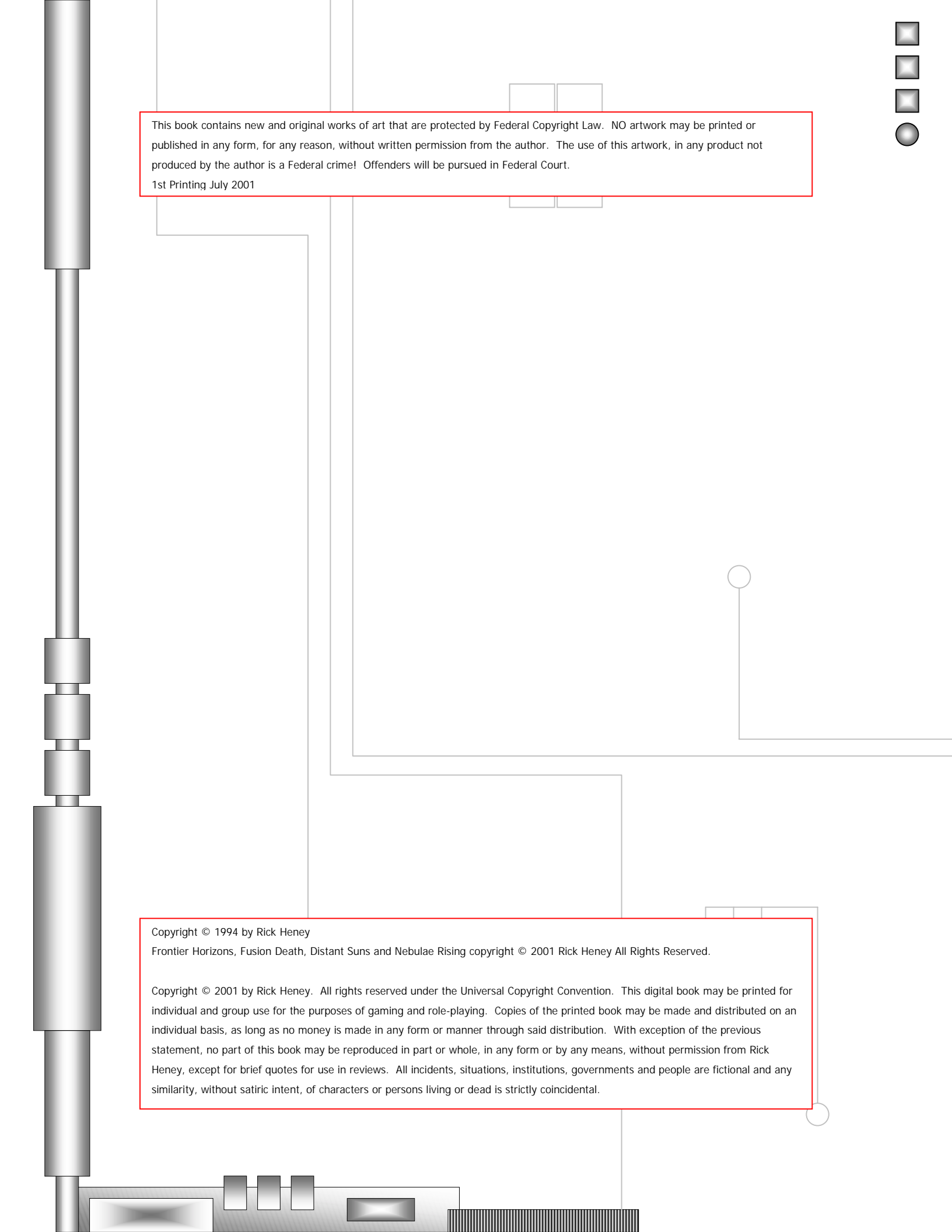
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BASIC STARSHIP RULES

~~FRONTIER HORIZONS~~

ROLE PLAYING SUPPLEMENT

Design/Revision/Editing: Rick Heney



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Combat Rules

These rules are written from a complete role-playing perspective. That is, it is assumed the referee and players will role-play their characters (and their ship) into or out of combat situations. Thus, there are little or no rules to allow for board game play.

Turn Length

Turns in space combat are 1 minute long.

Maneuver

Because there are no rules for ranges, it is assumed that any ships that are engaged in "combat" are within range of each other's weapons. To maneuver a ship into combat range can be simple or easy, depending on the circumstances.

If the target is unaware that it is about to be attacked, is not expecting to engage in combat, or wants to enter combat, then approaching to combat range can be assumed to have happened. If the target does not wish to engage in combat, things get more difficult.

To maneuver into combat range of an evading ship, both pilots must make a Moderate (pilot) skill check. To gain initiative (and thus choose if the ships are within combat range or not), a pilot must beat the Moderate skill check, and also beat the opposing pilot's role.

When a pilot is attempting to evade several enemy ships, the pilot's skill check is modified by -1 per enemy ship.

Disengaging from combat is the same as maneuvering into combat range. The winning pilot simply declares that he has disengaged from combat. This declaration must be made prior to the skill roll.

Attacking

Assuming the ships are within "combat" range, the to hit roll is: $6\% \times \text{computer CYC}$, $+6\% \times \text{operator skill}$, $+2\% \times \text{operator REF}$, $-6\% \times \text{target MAN}$, $-3\% \times \text{target SPD}$, $+20\%$ for missiles.

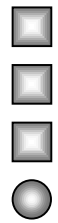
Maneuver into attack position

Optionally, a pilot may attempt to maneuver his ship so as to allow the shipboard gunners a better shot. Both ship pilots must make a Difficult (pilot) skill check (the ship's MAN value may be added as a bonus to this check). To succeed, the attacking pilot must beat the skill check, as well as the opposing pilot's skill check. Success grants a $+20\%$ to hit to all gunners aboard the attacking ship.

Damage

Every weapon is represented by a single die. The bigger the die, the bigger the weapon. Currently, there are no multi-die weapons. Every weapon that hits a ship must roll for damage location on the table below.

Rockets are technologically similar to missiles, except they are far less maneuverable and only track their target to a limited extent. However, they carry a significantly larger payload. Rockets do 2x rolled damage. Rockets have a -20% penalty to hit. Rockets may only be fired if the attacking ship has maneuvered into an "attack position." Rockets do not receive the $+20\%$ bonus from the ship being in an "attack position."



Hit Location Table

<u>d20</u>	<u>Location</u>
1 – 12	Armor / Hull (ARM)
13 – 16	Engine hit (SPD)
17 – 18	Maneuver hit (MAN)
19	Weapon hit
20	Other critical hit



Armor / Hull Hit

Armor takes 1 point of damage per hit, 1 point of damage if the damage roll is equal or greater than the ship armor, and 1 point of damage if the attack was from a missile/rocket weapon. This is cumulative.

When armor is reduced to 0, the ship hull takes damage. Hull takes damage equal to the weapon damage roll. When the hull is reduced to 0, the ship is destroyed. A ship has a number of Hull damage points equal to its size.

SPD Hit

Speed is reduced by 1 per hit, and 1 if damage roll is equal or greater than ship size.

MAN Hit

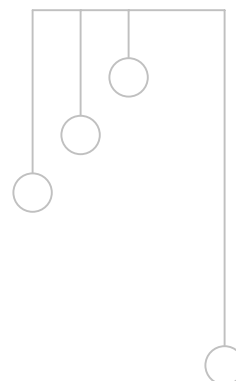
Maneuver is reduced by 1 per hit, and 1 if damage roll is equal or greater than ship size.

Weapon Hit

Weapon is disabled, weapon is destroyed if damage roll is equal or greater than ship size.

Other Critical Hit

Referee makes up a specific critical hit, or applies this as a normal Hull / Armor hit, whichever is useful. This can be a crew hit, cargo hit, auxiliary system hit, etc.



Design Rules

The design rules allow for the construction of ships up to size 20. However, the largest production ships (to include warships) are rarely larger than size 12. Currently, the largest production ship in existence is the Monolith class Space Carrier. The largest civilian production ships in existence are a toss up between the megaliners (super luxury cruisers that do nothing other than take passengers on fabulous cruises to distant parts of the sector to see exotic deep space phenomenon, solar systems and planets) and the megafreighters of the great mining corporations, both at size 10. These rules will be expanded.

Combat Information

SIZE Size of the ship, ranges from 1 – 20
CREW Number of crew required to operate the ship normally.
SPD Speed, the strength of the ship's engines, ranges 1 – 20
MAN Maneuver, the agility of the ship, ranges from 1 – 20
ARM Armor, the thickness of the ship's armor, ranges from 1 – 20
Weap Weaponry

After initial values are selected for each of the first four attributes, perform the following actions:

- Number of crew required for the ship is $SIZE^3$
- SPD is reduced by the SIZE of the ship.
- MAN is reduced by the SIZE of the ship.
- MAN for civilian ships is usually less than $\frac{1}{2}$ SPD.
- ARM is increased by 1.
- Weapons are special, see below.

Weaponry

- Ships may carry 1 weapon system x SIZE.
- Two Missile/Rocket Systems count as a single weapon system.
- All weapons and missiles/rockets do a single die of damage.
- Maximum size the damage die may be is 2x SIZE for military ships, and 1x SIZE for civilian ships.
- Maximum size the damage die may be for missile/rocket systems is 4x SIZE for military ships, and 2x SIZE for civilian ships.
- Total of the damage die maximums may not exceed $2 \times (SIZE)^2$
- Missiles/rockets count as $\frac{1}{2}$ their damage die maximum.
- Missiles/rockets carry 1 round x SIZE per system.

Weapon Nomenclature

3d8 Denotes three guns, each of d8 size
M Denotes a missile weapon
(x3) Denotes number of times each missile/rocket weapon can be fired
R Denotes a rocket weapon

So, 4d10 denotes a ship that is armed with four cannon, each of which does d10. Also, M2d12(x4) denotes a ship armed with 2 missile systems, each of which does d12, and each of which can be fired 4 times.

Rocket nomenclature is similar to missiles, except that the M symbol is replaced by the R symbol. So, R3d10 (x6) denotes a ship armed with 3 rocket systems, each of which does d10 (which is doubled), and each of which can be fired 6 times.

Role-playing Information

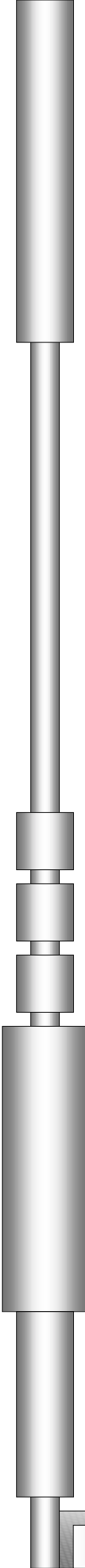
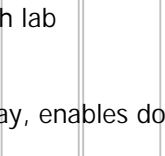

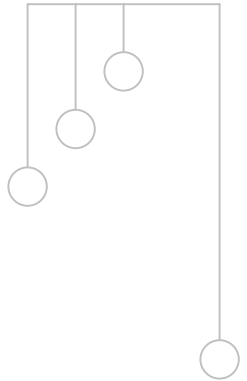



- Mass** A ship's mass (in megatons) can be computed by taking $10d10!$ x the cube of the ship's size (with an optional variance of -50% up to +200%)
- Disp** Displacement tons. This is the number of tons of water the craft will displace when submerged. This is a basic indicator of the volume available in the ship. Displacement = [(Total size of all Aux Systems) + something]...
- Cost** $(\text{SIZE} \times \text{ARM}) + (\# \text{-ENG} \times \text{Z-ENG} \times \text{T-ENG}) + 2 \times \text{AUX SIZES} + 10 \times \text{maximum cannon damage} + 1.25 \times \text{maximum missile and rocket damage}$ (cost is in millions)
[Suggest using SPD + MAN as value for T-ENG]
- CYC** All ships have a computer. Sophistication of the computer is equal to SIZE of the ship. This is the computer's CYC score. This can be increased by up to +4.
- #-ENG** Number of engines on the ship. Default is 1 engine per size class, e.g., a size 2 patrol cruiser will have 2 engines.
- Z-ENG** Size of engines on the ship. Default is the size class of the ship, e.g., a size 3 corvette will have size 3 engines.
- T-ENG** Type of engines on the ship. Right now all that is available is Standard and Heavy. Civilian ships typically have Standard engine types, military ships have Heavy engines. For purposes of computing MPU, standard engines will have a "power" value equal to 1. Heavy engines will provide a "power" value equal to 2.
- MPU** Mega Power Units. A ship's power core will produce a number of MPU every minute, similar to personal power systems in Frontier Horizons. A Mega PU is equal to one million standard PU. $\text{MPU} = \# \text{-ENG} \times \text{Z-ENG} \times \text{T-ENG} / (\text{SPD} \times \text{SPD} \times \text{MAN}) \times 25$. It takes *roughly* 1 MPU to activate 1 weapon system. Missile systems use $\frac{1}{2}$ MPU and rockets use $\frac{1}{4}$ MPU each. In general, all ships will have enough power to fire all their weapons every turn, if desired. This information is provided for role-playing purposes.

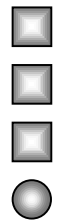
Auxiliary Systems

Auxiliary systems are provided mostly for role-playing, but some can effect ship to ship combat as well. Maximum number of Auxiliary systems a ship can carry is $2 \times \text{SIZE}$. No single AUX System may be larger than the ship SIZE.

AUX

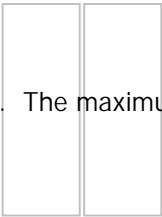
- | SIZE | Description |
|------|--|
| 1 | Probes, there are two varieties: standard and landers. Standard probes can be launched into space and will analyze stars, planet atmospheres, gas clouds, and also function as long range scanners. Landers are capable of landing on planets and moving around. The only difference is that a ship can carry a number of standard probes equal to $2 \times \text{SIZE}$, whereas a ship can only carry $1 \times \text{SIZE}$ of landers. |
| 2 | Shuttles, provides several shuttles, enough for 20% of the crew to leave at once |
| 1 | Escape Pods, provides enough escape pods for every crew member |
| 2 | Long Range Sensors, extend the ship's sensor range out to $500,000 \text{ km} \times \text{SIZE}$. Normal scanning range is $100,000 \text{ km} \times \text{SIZE}$. |
| 1 | Passenger Quarters, can accommodate a number of passengers equal to SIZE^2 |
| 1 | Crew Quarters, provides enough quarters for the entire crew |
| 5 | Recreation Center |
| 3 | Mess Facilities, this is a full blown kitchen and dining area. Many craft has a small galley, but this is not considered the same. |
| 1 | Cargo hold, can be purchased multiple times. Each cargo hold can carry a number of metric tons of material equal to SIZE^2 |
| 1 | Cargo Manipulator, provides two crew operated manipulators that aide in the loading and unloading of large items of cargo. Typically the manipulators have a crew station at their base and either slide along a rail across the cargo hold, or are fixed to opposite ends of the cargo hold |

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- 3 Science Lab, fully equipped science & research lab
- 4 Robotics Lab, fully equipped robotics lab
- 4 Medical Bay, fully equipped medical bay
- 4 Cybernetics Lab, fully equipped cybernetics bay, enables doctors to attach, remove, repair, modify design and build cybernetics.
- 2 Assault shuttles, used for boarding hostile ships
- 3 Backup Power system
- 10 Fighter Bay, carries 1 fighter x SIZE
- 1 Planetary Landing capability, this allows the ship the ability to land on planets
- 2 Vehicle Bay, vehicle can carry 1x SIZE vehicles in this bay
- 3 Decontamination Bay, complete NBC decontamination equipment. The bay can accommodate a single large vehicle or two small vehicles at once.
- 4 Artificial Gravity System
- 1 Surface Movement System, this system uses ½ the AUX slots available to the ship
- 2 Mining Equipment, produces 2x SIZE metric tons of ore per hour
- 3 Ore Processor, can extract minerals from 1x SIZE metric tons of ore per hour
- 3 Gas harvester, harvests valuable gasses from atmospheres, notably from gas giant planets
- 4 Liquid Purifier, filters out selected impurities (such as gold and minerals) from large quantities of liquid. Typically used by landing the craft in the water and then running the system until the ship's cargo tanks are full.
- 6 Tractor Beams, a ship can tow an unpowered ship if its SPD is greater than the derelict's SIZE. If a powered ship is to be towed, the ship must have a SPD greater than the target's SPD + SIZE.
- 4 Grapples
- 3 Sensor Jammer, range is 10,000 km x SIZE
- 5 Cloaking Field, ship is invisible on all bandwidths. Maneuvering, moving, weapons fire and communications outside the ship will all give away the craft's position.
- 3 Multi Crew Weapons Stations, allows dedicated fire control, target tracking, acquisition and coordination. Grants a +15% to hit.
- 3 Repair & Construction Pod
- 2 Antimissile Rockets, chance of success: 50% per volley, volleys: 2x SIZE, use: minimum of 1 volley
- 5 Antimissile Guns, chance of success: 15% per burst, bursts: 10x SIZE, use: minimum of 1 burst
- 8 Antimissile Screen, chance of success: 100%, charges: 1x SIZE, recharge rate is 1 per hour, use: 1 charge protects for a full turn
- 2 Force Screen, negates damage, maximum amount of damage negated is SIZE, screen is fully recharged after 1 hour
- 4 Deflection Screen, deflects incoming fire, -2 x (20 – SIZE) penalty to enemy attack, charges: 1x SIZE, 1 charge protects for a full turn, screen is fully recharged after 1 hour
- 1 Military Performance Engines (+1 SPD)
- 6 Military Performance Engines (+2 SPD)
- 12 Military Performance Engines (+3 SPD)
- 6 Enhanced Maneuverability (+1 MAN)
- 12 Enhanced Maneuverability (+2 MAN)



Notes on Creating Deck Plans

The number of engines a ship has is equal to its SIZE. The maximum number of decks a ship typically has is equal to its SIZE.

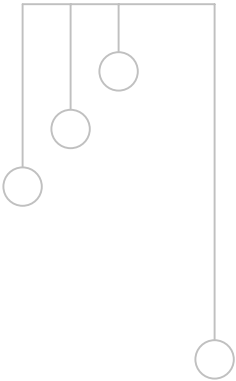


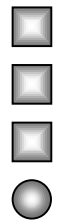
Remember to include the following:

- Main and auxiliary power systems (usually aft, in the lower portions of the ship)
- Weapon systems and crew stations
- Auxiliary systems
- Bridge (usually at the front of the ship, the top of the ship, or at the very center of the ship)
- Crew and passenger quarters
- Storage areas (arms rooms, robot lockers, miscellaneous equipment lockers, etc.)
- Mess facilities
- Docking equipment and boarding tubes
- Airlocks
- Sensor packages (long range sensors, probe bays, etc.)
- Engineering section (usually near the engines, engine access tunnels, or the main and auxiliary power supplies)

Sample Ships

Common Warships								
	Fighter	Patrol Cruiser	Corvette	Frigate	Cruiser	Destroyer	Battleship	Carrier
SIZE	1	2	3	4	6	8	10	12
CREW	1	8	27	64	216	384	1,000	1,728
SPD	8	7	5	5	4	3	4	3
MAN	9	7	6	5	5	4	3	2
ARM	2	3	4	5	6	8	10	12
Weapons	d2	M2d8(x2)	2d6	3d8	6d12	6d12	10d20	8d10
			Md12(x3)	M2d8(x4)	or	M4d10(x8)		M8d10(x12)
					M12d12(x6)			





Research Vessel

SIZE: 5
CREW: 125
SPD: 4
MAN: 2
ARM: 3
Weaponry: 3d4

AUX
Probe system x2
Escape pods
Long Range Sensors
Crew Quarters
Mess facilities
Science lab x2
Artificial gravity system
Medical bay

Exploration Vessel

SIZE: 6
CREW: 216
SPD: 4
MAN: 2
ARM: 4
Weaponry: 4d6

AUX
Probe system
Shuttles
Long Range Sensors
Crew Quarters
Mess facilities
Science lab
Medical bay
Backup power system
Decontamination bay
Artificial gravity system
Landing capability

Heavy Freighter

SIZE: 8
CREW: 729
SPD: 3
MAN: 1
ARM: 6
Weaponry: 6d8

AUX
Crew quarters
Mess facilities
Cargo hold x10
Cargo manipulators
Artificial gravity system
Repair pod
Medical bay

Passenger Liner

SIZE: 10
CREW: 1,000
SPD: 3
MAN: 1
ARM: 3
Weaponry: 2d8

AUX
Shuttles
Escape pods
Passenger quarters x10
Recreation center x2
Mess facilities x2
Medical bay
Artificial gravity system
Cargo hold
Crew quarters

Mining Vessel, lg

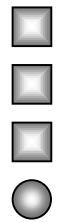
SIZE: 8
CREW: 384
SPD: 2
MAN: 1
ARM: 6
Weaponry: 4d8

AUX
Shuttles
Crew quarters
Medical bay
Robotics lab
Backup power system
Planetary landing capability
Mining equipment
Ore processor
Repair & construction pod
Cargo hold x7

Gas Harvester

SIZE: 5
CREW: 125
SPD: 3
MAN: 2
ARM: 4
Weaponry: 3d4

AUX
Escape pods
Crew quarters
Long range sensors
Cargo hold (modified for gas)
Recreation center
Artificial gravity system
Gas harvester
Backup power system
Repair & construction pod
Science lab



Mule Super Freighter

SIZE: 10
CREW: 1,000
SPD: 4
MAN: 1
ARM: 6
Weaponry: 6d10
Cost: 820 million

AUX

Crew quarters
Mess facilities
Cargo hold x14
Cargo manipulators
Artificial gravity system
Repair pod
Medical bay

Geological Survey Vessel

SIZE: 2
CREW: 8
SPD: 6
MAN: 3
ARM: 2
Weaponry: none
Cost: 20 million

AUX

Long range sensor
(survey gear)
Crew quarters
Landing capability
Vehicle bay

Mining Vessel , sm

SIZE: 5
CREW: 125
SPD: 2
MAN: 1
ARM: 4
Weaponry: none
Cost: 63 million

AUX

Crew quarters
Cargo hold
Landing capability
Surface movement system
Mining equipment
Ore processor

Carrier

SIZE: 12
CREW: 1,728
SPD: 3
MAN: 2
ARM: 12
Weaponry: 8d10, M8d10(x12)
Cost: 1,654 million

AUX

Crew quarters
Mess facilities
Medical bay
Backup power system
Artificial gravity system
Fighter bay x12
Anti-missile guns (120 bursts) x2
Anti-missile screen (12 uses)
Recreation center
Multi-crew weapon stations
Long range sensors
Escape Pods

Crew (1,728)
1/1/20 captain / XO / officers
15 pilots
15 navigators
30 communications specialists
24 EW specialists
8 armorers
96 gunners (6 per weapon system)
60 cooks
48 Engineers
384 marines
72 medical personnel
27 administrative personnel
576 fighter handlers & deck crew
144 / 144 fighter pilots / copilots
63 support staff

Super Dreadnought

SIZE: 20
CREW: 8,000
SPD: 3
MAN: 2
ARM: 21
Weaponry: 20d20, M20d80(x20)
Cost: 7,514 million

AUX (40 systems)

Crew quarters
Mess facilities
Medical bay x2
Robotics Lab
Cybernetics Lab
Backup power system x2
Artificial gravity system x2
Anti-missile guns (200 bursts ea.) x4
Anti-missile screen (20 uses)
Recreation center
Multi-crew weapon stations
Long range sensors x3
Escape Pods
Tractor Beams
Cargo Hold x2
Cargo Manipulators
Fighter bay x2 (20 fighters ea.)
Sensor Jammer
Repair & Construction Pod x3
Force Screen (Negates 20 DP) x2
Planetary Landing Capability
Assault Shuttles
Military Performance Engines (+3 SPD)
Enhanced Maneuver (+2 MAN)

Crew (8,000)
1 / 1 / 40 captain / XO / officers
20 pilots
20 navigators
60 communications specialists
40 EW specialists
40 armorers
180 gunners (6 per weapon system)
90 cooks
200 Engineers
2,000 marines
400 medical personnel
300 administrative personnel
160 fighter handlers & deck crew
40 / 40 fighter pilots / copilots
4,368 support crew

Small Freighter

SIZE: 3
CREW: 27
SPD: 5
MAN: 2
ARM: 3
Weaponry: d4
Cost: 72 million

AUX
Crew quarters
Mess facilities
Cargo hold x2
Cargo manipulators
Escape pods

Crew (27)
1 captain
1 master pilot / gunner
2 pilots
1 master astrogator
3 astrogators
4 communications specialists
6 cargo handlers
1 armorer / alternate gunner
3 cooks
6 engineers

Patrol Cruiser

SIZE: 2
CREW: 8
SPD: 7
MAN: 7
ARM: 3
Weaponry: M2d8(x2)
Cost: 46 million

AUX
Crew quarters
Planetary landing capability
Long range sensors
Anti-missile rockets (4 volleys)

Crew (8)
1 mission commander
2 pilots
1 navigator
2 gunners
1 engineer
1 communications specialist

Frigate

SIZE: 4
CREW: 64
SPD: 5
MAN: 5
ARM: 5
Weaponry: 3d8, M2d8(x4)
Cost: 360 million

AUX
Crew quarters
Mess facilities
Medical bay
Backup power system
Artificial gravity system
Anti-missile rockets (8 volleys)
Deflection screen (-32% to hit)
Multi-crew weapon stations

Crew (64)
1/1 captain / XO
1/4 master pilot / pilots
1/4 master navigator / astrogators
5 communications specialists
4 EW technicians
1 armorer
8 gunners
4 cooks
8 engineers
16 marines