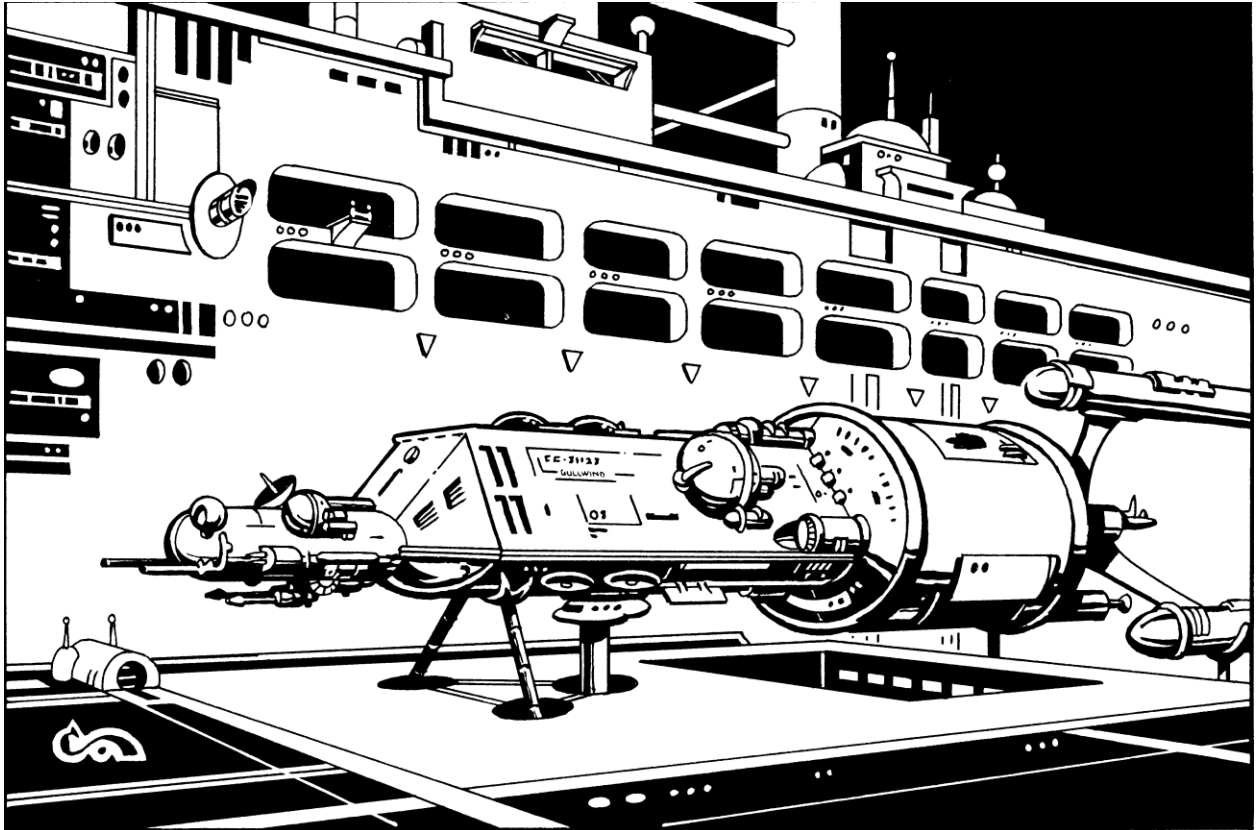


STAR FRONTIERS[®]

Knight Hawks



Interstellar adventures for Star Frontiers



Blasting off to distant worlds in search of adventure

One of the most exciting aspects of science fiction has always been space travel. The Knight Hawks rules bring this excitement to the Star Frontiers (URS) project. As a longtime fan of science fiction and science fantasy I have always had a love for spaceships crossing the void of space to distant planets where they can encounter all manner of new challenges, and sometimes engage in fearsome space battles.

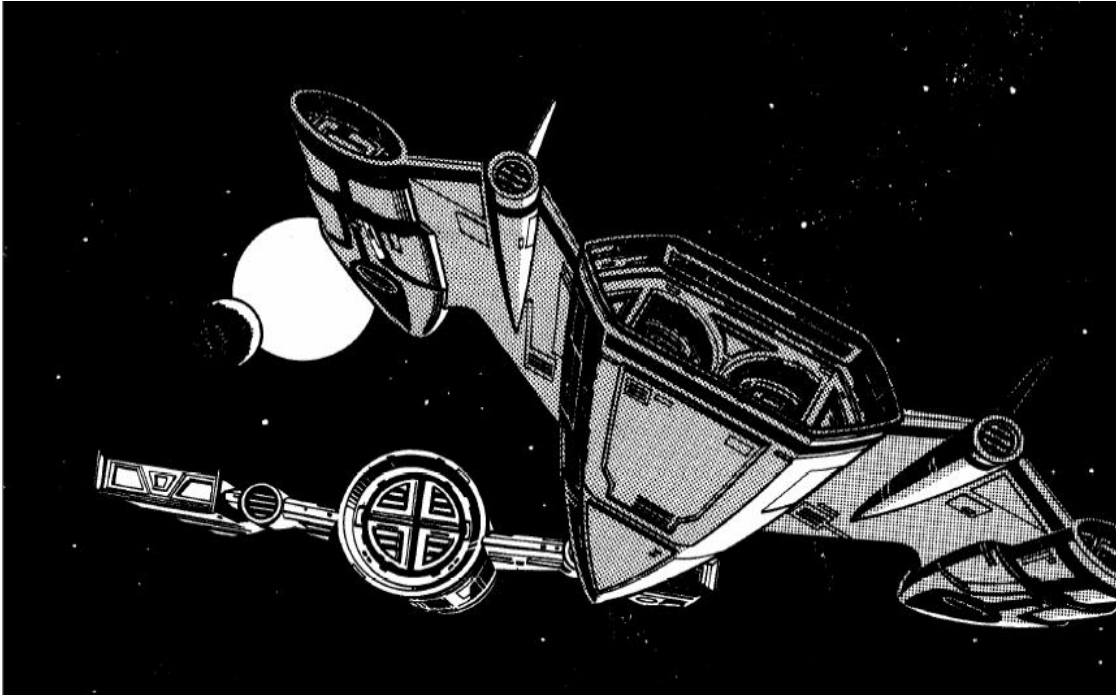
Of course I will admit freely that my love of this kind of action is more a love for the cinematic action than what most know of as hard science fiction, and so the rules herein often forgo science fact for the excitement of Star Wars type science fantasy. So if you prefer more science in your science fiction I urge you to use these rules as guidelines, and discard what doesn't work for you. This is after all your campaign and you should make it your own. So let me stop boring you with my ramblings and let you get started.

Victor M. Gil de Rubio

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Starships: Bridging the gap between worlds

The Known Frontier spans over 700 light years from Prenglar, the Frontier capitol to the edge of the Rim and there are hundreds of populated planetary systems within that sphere, and beyond that are thousands of uncharted star systems. With distances this vast the Frontier has come to depend on starships capable of bridging the gap between worlds to unite the Frontier.

Countless people spend their whole lives planet bound, and most are satisfied living that way, but for many the stars promise adventure beyond anything they could find on their home worlds and as the Spacer saying goes, “Once you taste the freedom of star travel, no planet will ever be enough”

Section One: Spacecraft Construction

Designing a spacecraft for use in the Frontier is a very straight forward process. Each ship is defined by a number of factors, including its size, its class, type of superstructure, level of automation, Engine type, and Faster than light (FTL) drive (or lack thereof) etc. Each of these traits has a construction point cost that determines the amount of resources required for building that part of a ship. After you have determined the total number of points required you can determine the vehicle's base cost.

Although there is no limit to the number of construction points in a ship's design, as the number escalates so does the cost of building the ship. It should be noted that a ship's size does limit its capabilities. These limitations are given for each core system. Some levels are impossible for stock ships to manage-only extensively modified ships can attain them. After a base price has been established it's possible to add other systems such as specific weapons, cloaking devices, and communications gear.

As a practical matter, no ship with a total cost greater than 5, 000,000cr will ever be built for sale to an individual, although ships manufactured for Mega-Corps, planetary militias etc. are exempt from these rules. Of course certain privately owned ships have been modified extensively bringing their total value way above this construction cap.

Space craft size and Classification

The first two facts that must be decided when designing a space craft are firstly whether the craft is to be a system ship or a starship. While all ships unless otherwise noted are capable of atmospheric travel, System ships lack the ability to travel between star systems at practical speeds, taking decades or longer to cross a single light year and so are limited to

travel within a star system. Once you have determined the type of ship you wish to build, you must then determine its size.

All ships systems are based on the ship's size and classification. The following table shows the standard sizes and classes based on a ship's length and approximate mass. It should be noted that length refers to a ship's longest dimension, which may actually be its height or width. There are four major classes (probe, fighter, transport, and capital) but each class can be divided into subclasses as needed.

Because larger ships take more time to build than smaller ones they cost considerably more construction points. The cost represents the expense of laying down the basic frame of the ship. Additional construction points are spent later for the ship's complete superstructure.

A ship's armor rating is a function of its total frame strength and mass and thus is based on its size. A ship needs at least 10 points of armor to be space worthy. The ship's armor rating reduces damage taken by the ship from non-starship weapons (personal and vehicle mounted weapons) by 10 points, and reduces damage from spacecraft weapons by -1point. Most civilian ships don't carry extra armor, and only military class ships can legally be built with heavy armor or better.

Size	Stealth/ Maneuverability Rating	Max Length	Max Weight	DR	Ship Armor	Construction Points	Class
Small	+8	30'	10 tons	18	10	3	fighter
Medium	+6	60'	20 tons	16	10	12	transport
Large	+4	120'	40 tons	14	10	24	transport
Huge	+2	250'	100 tons	12	10	48	transport
Gargantuan	+1	500'	400 tons	11	10	100	transport
Colossal	+0	1,000'	1,000 tons	10	10	150	capital
Colossal II	-2	1,500'	10,000 tons	8	10	200	capital
Colossal III	-4	3,000'	100,000 tons	6	10	250	capital
Colossal IV	-6	6,000'	1 million tons	4	10	300	capital
Colossal V	-8	12,000'	10 million tons	2	10	400	capital
Colossal VI	-10	25,000'	100 million tons	+0	10	500	capital
Colossal VII	-12	50,000'	1 billion tons	-2	10	1,000	super

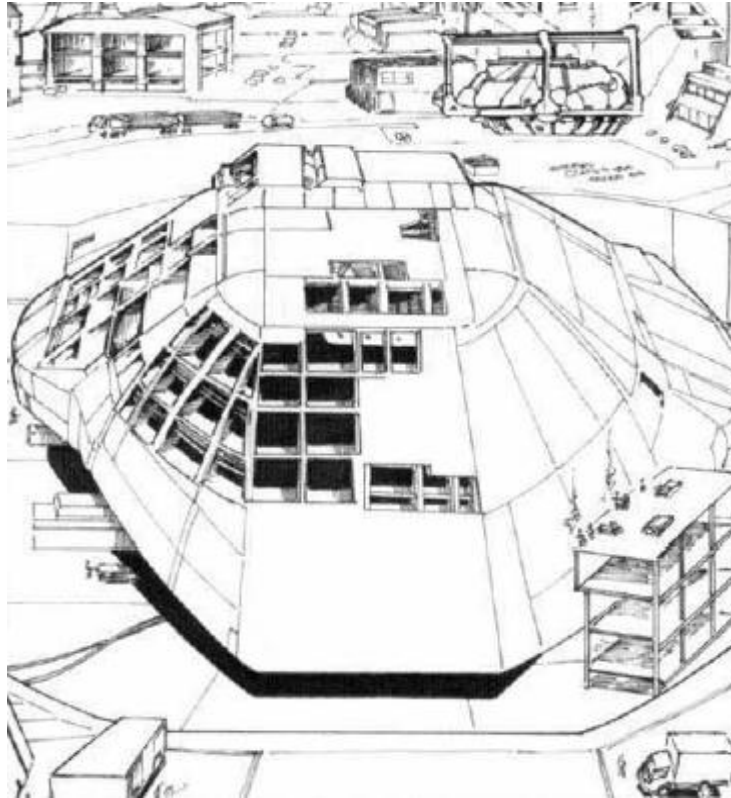
Superstructure

A ship's superstructure includes its bulkheads, bracing, deck plates and dozens of other components designed to give its frame structural strength. The stronger a ship's superstructure the more Hull points the ship has. Smaller ships have less resilient superstructures than larger ships. Larger ships must have a minimum amount of bracing to survive the rigors of moving their large masses through space.

Size	Hull Points	Endurance Points*	Construction Points
Small	10	100	1
Medium	20	200	2
Large	30	300	5
Huge	50	500	10
Gargantuan	70	700	20
Colossal	90	900	40
Colossal II	100	1,000	80
Colossal III	150	1,500	160
Colossal IV	200	2,000	200
Colossal V	300	3,000	300
Colossal VI	400	4,000	400
Colossal VII	800	8,000	800

* The Endurance point listing is for use when hand held, or vehicle mounted weapons are used against a spacecraft.

It should be noted that gargantuan or larger ships under normal circumstances cannot land on a planet because they are not designed to handle the stress of traveling through an atmosphere.



Automation

A ship's Automation trait determines how large a crew is needed to run it. Small ships that don't have space for large crews must include extensive automation to enable a few people to do everything. Larger ships don't need as much automation- in fact due to their vast size and extensive technical needs, they can't automate all their functions. Some ships try to reduce crew minimums even further with robot automation.

Minimum Crew	Ship size Restriction	Construction Points
0	Small	10
1-2	Small	10
3-4	Medium	9
5-16	Medium	8
17-64	Medium, Large	7
65-100	Medium, Large, Huge	6
101-700	Medium, Large, Huge, or Gargantuan	5
701-1,000	Medium, Large, Huge, or Gargantuan	4
1,001-2,500	Large, Huge, Gargantuan, Colossal	3
2,501-15,000	Large, Huge, Gargantuan, Colossal	2
15,001-30,000	Gargantuan or Colossal	1
30,001-50,000	Colossal	0

Power plant

All spacecraft require a power plant to generate and regulate the energy needed to power all the spacecraft's systems. The ship's power plant produces enough power to not only power all the ship's systems, but produces a surplus of energy/day that can either be stored in the ship's reserves or can be used to power non-ship equipment (power batteries, recharge weapons, Robots etc.). Each ship also has an emergency power generator that kicks in if the ship's main power plant has been damaged. This back-up generator can provide power to the ship for 20 hours/ship's size, but only allows the ship to move, use its sensors, and maintain life support. It cannot power the ship's weapons, artificial gravity systems, FTL drive, or defenses. Power plants come in a variety of types and have attributes as shown below:

Power Plant types

Type	Minimum Ship size	Surplus Seu/day	Storage capacity	Construction Points
Type A	Fighter	50seu	100seu	2
Type B	Transport	100seu	500seu	4
Type C	Transport	500seu	1,000seu	8
Type D	Capital	1,000seu	5,000seu	16
Type E	Capital	5,000seu	10,000seu	32

Engines

A ship's engines allow it to land on and lift off from planets and are used to move and maneuver a ship when it isn't traveling through the void. A ship's engine trait also includes the type of maneuverability thrusters it possesses which determine how agile the ship is and gives a bonus or penalty to the ship's Defensive rating. This is often a critical factor in ship combat, since all space battles are fought in normal space. Smaller ships are generally faster and more maneuverable than larger ships, thus they have more advanced engines. Some capital ships are so massive that their engines are only strong enough to move them away from a planet's gravity well so they can jump into the void.

Engine types

Antimatter Engine: This quickly outlawed engine design (because of the risks involved) could produce tremendous bursts of speed through the annihilation of anti-protons. Antimatter engine ships regardless of their size are not allowed to make planetfall. There are only a handful of ships in the Frontier who possess this engine design, and most of these can be found in some Star Law impound lot awaiting disposal.

Chemical Engines: A strong metastable propellant rocket system offers the best performance that conventional liquid chemical rockets can offer. Their low cost makes them a great choice for system ship operators. A conventional rocket can only be used in constant thrust for three days before emptying their internal fuel canister and then must be refueled at a cost of 1,000 credits x the space craft's size.

Fission Rocket (Type One): Through nuclear reactions, a gas-core fission rocket can convert a much greater percentage of its fuel mass into energy. Regrettably, though, this rocket system suffers from its own weight, thanks to the amount of shielding required to contain the radiation. Ships using this type of engine cannot enter a planetary system's atmosphere regardless of its size due to UPF regulations. A fission rocket of this type can generate enough power for two weeks of constant thrust before needing a recharge, costing 10,000cr/ship size.

Fusion Rocket (Type One): A fusion rocket is in essence nothing more than a fusion generator whose plasma containment bottle has been ruptured. The exhaust jet that results from the deuterium/helium3 reaction propels the spaceship forward. This is the precursor of the ion drive commonly used in starships. A fusion rocket lasts six weeks of constant use before emptying itself of fuel. As with fusion engines, ships sporting these engines cannot make planet fall due to UPF regulations.

Hyper-magnetic engine: This kinetic engine is becoming very popular and some see it overcoming the Ion Engine as the engine of choice if things continue to progress. This engine works by momentarily negating the rest mass of a powerful magnet through mass induction technology and then hurling it along the path of the engine. By the time the magnetic pulse reaches the end of the engine the pulse regains its mass, and pushes the ship away from it.

Ion Engines/gravity flux: Ion/gravity flux engines operate on the same principle as particle beam weapons. Charged particles are released from the rear of the ship at tremendous velocity providing the ship with thrust. Ion engines as they are commonly called are in effect two types of engines, switching automatically from ion engines to ship grade repulsor lift engines when in a planetary atmosphere making them very popular. They also require significantly less fuel than any other type of engine, and they are easy to maintain.

Magnetic Sail: This engine system relies on the creation of a magnetic field to catch and propel the vessel on the energy of the nearest star. Like the solar sail that it evolved from only modest acceleration is possible. System ships with these types of engines cannot make planetfall.

Micro-fusion pulse engine: The oldest star ship engine still in use today has all but been replaced by the cleaner Ion engine drive. Basically the system uses a series of small fusion reactions as a means of propulsion by providing thrust against a carefully constructed and shielded pusher plate at the edge of the vehicle. These engines cause ships using them to be restricted from making planetfall.

Particle Sail: The particle sail functions much like the magnetic sail, affecting an alternative to conventional systems. Particle sails have much to be said about them; unlike magnetic fields particles have mass, allowing the sail to be smaller and attain greater acceleration. Particle sails led the way for creating the Ion engine still in use in the Frontier. Particle sail star ships cannot make planetfall.

The speed listed below for each ship is an abstract number used to simplify combat rules, the higher the number the faster a ship travels. It should be noted that ships can only effectively fight each other if both ships have a speed rating no more than ten points greater than their opponent. At speeds faster than this the ships weapon systems cannot effectively target their opponents and start suffering penalties equal to -2 to hit/point over ten that the faster ship is traveling. For those players who wish to calculate exactly how fast their ships are moving when cruising 1 point is equal to ½ an AU (1 Au is the distance between the earth to the sun roughly 92,955,887.62 miles.) Escape velocity is the speed necessary for a ship to escape from a planet's orbit.

Engine class	Atmospheric	Speed		Maneuverability/ defensive adjustment	Construction points
		Acc/dec	Cruise		
Type A	escape velocity	1	1	-4	1
Type B	escape velocity	1	2	-2	2
Type C	escape velocity	2	2	+0	4
Type D	escape velocity	2	4	+1	6
Type E	escape velocity	2	6	+2	10
Type F	escape velocity	3	6	+4	20
Type G	escape velocity	4	8	+6	30
Type H	escape velocity	4	10	+8	40

Engine Type	Engine class Restriction	Trips before refueling	Fuel Cost*
Antimatter	Up to Type F	10	100,000cr
Chemical	Type A	see description	
Fission (type A)	Up to Type C	see description	
Fusion (type A)	Up to Type C	see description	
Hyper-magnetic	No restriction	10	2,000cr
Ion/gravity flux	No restriction	10	500cr
Magnetic sail	Up to Type B	n/a	n/a
Micro-fusion	Up to Type C	2	4,000cr
Particle sail	Up to Type D	2	2,000cr

Planetary thrusters

Some spacecraft whose engines do not allow the ship to operate within a planetary atmosphere can be fitted with planetary thrusters. Planetary thrusters are often called gravity flux engines because they are based on the same technology as most hover vehicles in the Frontier. All ships that have these engines can move in a planetary atmosphere at any speeds up to escape velocity and the ship's drive program will automatically switch a ship from its standard engines to planetary thrusters when the ship enters a planet's atmosphere.

While it is possible for ships whose engines are restricted from allowing them to enter a planetary atmosphere to be fitted with these thrusters, Frontier law still restricts radiation producing ships such as (Type A) fission, (Type A) fusion and micro-fusion engines so these engines cannot be fitted with planetary thrusters legally. Planetary thrusters add 2 construction points to the cost of the ship's engines.

Faster than light speed engines (FTL drives)

An FTL drive is an amazing device that allows a ship to slide into what is known commonly as the void or Void space. While a starship is in the void, distances between star systems contract allowing the ship to cross vast distances of real space within a relatively short amount of time. It was the discovery of the technology to allow a ship to pass into and out of the void that allowed the races in the Frontier to first meet, and led the way to colonizing what is now known as the Frontier.

Travelling through Void space is not without its dangers. Objects in real space cast mass shadows (or gravity shadows) into subspace creating serious hazards. A ship that strikes a mass shadow is instantly destroyed. As a result before a ship can make a jump into the void, its astrogation computer must be fed data by a navigator, and it computes a safe course through subspace. Once the ship makes the jump into Void space it cannot change course.

A ship's FTL drive trait lists how many light years the ship can travel in one day. Commercial ships usually have a FTL drives no faster than 3 light years per day, while military vessels usually have FTL drives that can cross 4-8

light years in a day. Smugglers, and other outlaws try to modify their FTL drives achieve even faster speeds than military ships, FTL drives that are faster than 10 light years per day are only possible through modification and are extremely rare.

Because FTL drives are so vital to a starship many ship owners install a second drive as a back-up. These systems only come into play if the ship's primary FTL drive is damaged (small non- military ships cannot install even a primary FTL drive).

FTL Drive Type	Ship size restriction	Light years crossed/day	Construction points	Restriction
Type A	Any ship size	.5ly/day	1	none
Type B	Any ship size	1ly/day	2	none
Type C	Any ship size	1.5ly/day	4	none
Type D	Any ship size	2ly/day	6	none
Type E	Any ship size	3ly/day	8	by permit
Type F	Medium or larger	4ly/day	10	by permit
Type G	Medium or larger	5ly/day	12	military only
Type H	Medium or larger	6ly/day	14	military only
Type I	Medium or larger	7ly/day	18	military only
Type J	Large or greater	8ly/day	20	military only

FTL drive types

Antimatter flux Engine: The oldest FTL drive type still found in the Frontier. The Antimatter flux drive uses minutely discharged antimatter to make a momentary tear into Void space allowing a ship moving at 1% of the speed of light to enter or exit the Void. This drive was deemed too dangerous and only the oldest ships in the Frontier still use them. Antimatter Flux drives are restricted to a FTL drive modifier of 1ly/day.

Tachyon Drive: The original Tachyon drive made Tachyon or subspace communication impossible while in transit, but recent improvements in the technology have corrected this problem. Another problem of the original Tachyon drive was the unusual prep times and frequency of overhauls. These were due to the experimental nature of the Tachyon FTL drives, which has now been for the most part corrected. Tachyon drives are the most common FTL drive in use in the Frontier, allowing a ship to tunnel through Void space by producing a field of tachyons around the ship.

Life Support

A ship's Life support trait determines how many beings it can sustain. In addition to the crew, its life support must cover any troops, prisoners or passengers the ship is designed to transport. Typical accommodations for such individuals are included in the base construction cost of life support. In an emergency, a ship can manage to carry up to double its maximum sustainable personnel for a short period of time, but risks damaging its life support systems when doing so.

Living beings can be stored in cargo bays, but this poses a danger since cargo areas are not designed to support life and cannot do so for more than a few hours. Living creatures should only be placed in a ship's cargo hold in dire circumstances.

Maximum Sustainable Personnel	Ship size Restriction	Construction Points
0	Small	0
1-2	Small	1
3-4	Medium	4
5-16	Medium	6
17-64	Medium, Large	8
65-100	Medium, Large, Huge	10
101-700	Medium, Large, Huge, or Gargantuan	20
701-1,000	Medium, Large, Huge, or Gargantuan	30
1,001-2,500	Large, Huge, Gargantuan, Colossal	35
2,501-15,000	Large, Huge, Gargantuan, Colossal	40
15,001-30,000	Gargantuan or Colossal	45
30,001-50,000	Colossal	50

Stowage

A ship's stowage system allows it to load and carry cargo. A ship's stowage trait reflects the size of its cargo hold and other storage spaces. The more extensive a ship's stowage systems are the more cargo it can carry safely. Bulk transports must carry massive amounts of common cargo to make it profitable they also need large, advanced stowage systems. Small cargo ships have smaller cargo holds, and are more likely to carry valuable items with high profit margins instead. Many small traders eventually turn to contraband cargoes, because of the huge profits they can provide, even though this requires them to avoid docking authorities.

Military ships use their stowage systems for wings of fighters and planetary landing craft. No more than half the ship's total cargo capacity can be used for vehicles or other ships. Also a ship may only carry a vehicle that is at least two size categories smaller than it is. To determine how much cargo capacity is needed to carry a vehicle or ship compare its size to calculate the cargo space required use the maximum mass listed for a space craft of that size.

Ship size Restriction	Cargo Capacity	Construction Points
Small	1-50lbs	1
Small	51-250lbs	2
Small	251-1,000lbs	3
Small, Medium, Large	1,001lbs-1 ton	4
Small, Medium, Large, Huge	1.1 ton-50 tons	5
Small or Greater	51-100 tons	7
Small or Greater	101-150 tons	11
Small or Greater	151-200 tons	15
Medium or Greater	201-500 tons	20
Medium or Greater	501-1,000 tons	25
Medium or Greater	1,001-5,000 tons	30
Medium or Greater	5,001-20,000 tons	35
Medium or Greater	20,001-35,000 tons	45
Medium or Greater	35,001-50,000 tons	55
Medium or Greater	50,001-65,000 tons	65
Medium or Greater	65,001-80,000 tons	75
Medium or Greater	80,001-100,000 tons	85

Consumables

The consumables trait determines how long a ship can support its personnel before it needs to take on additional supplies. Smaller ships can only carry a limited supply of consumables, while larger ships are almost always designed to spend months, or even years in deep space before they need to resupply. Although it is possible to create a colossal ship with only one week of consumables such a ship would spend more time loading material than travelling and could only make short trips.

Ship size Restriction	Consumables Duration	Construction Points
Any size	1 day	0
Any size	2 days	1
Any size	3 days	2
Any size	1 week	3
Any size	2 weeks	4
Small or Greater	3 weeks	5
Small or Greater	1 month	6
Small or Greater	2 months	7
Small or Greater	3 months	8
Small or Greater	6 months	9
Medium or Greater	9 months	10
Medium or Greater	1 year	11
Medium or Greater	1.5 years	12
Medium or Greater	2 years	13
Medium or Greater	3 years	14
Large or Greater	4 years	15
Large or Greater	5 years	16
Large or Greater	6 years	17

Defensive Shields

A ship's shield generators form a protective field of energy that protects the ship from energy and physical damage. A shield has two numbers. The first number is the amount of damage it can absorb in a round before it is breached (meaning it stops providing protection for the remainder of the round, but at the beginning of the following round it is able to absorb more damage) and the second number is the total number of points it can absorb before the shield drops completely, being unable to generate defensive energy until it is recharged or repaired.

On smaller ships there is a limit to the strength of the shield generator, and though it is possible to overcome this limit by mounting multiple shield generators, doing so is expensive, and takes up a lot of space and power thus doubling the number of construction points required/additional shield generator. Military grade shield generators are generally limited to ships authorized to mount them by government permission. A few ships mount back-up shield generators.

Type	Size Restriction	Damage Absorbed per turn	Maximum points Absorbed	Construction Points
Class A	None	2	10	1
Class B	None	5	20	2
Class C	Small or greater	10	40	4
Class D	Medium or greater	15	60	8
Class E	Medium or greater	20	80	10
Class F	Large or greater	25	100	20
Class G	Large or greater	30	120	30
Class H	Huge or greater	40	160	40
Class I	Huge or greater	50	200	80
Class J	Gargantuan or greater	100	400	160
Class K	Gargantuan or greater	200	400	320

Weapon Suite

A ship's weapon suite trait defines the total number of weapon emplacement points it can mount. This system is an abstract way to determine how many weapons a ship can have without defining how much weight and mass each weapon displaces. Emplacement points cover more than just space. Factors such as power requirements, bracing, stress and targeting computer capacity are all included in a weapon's emplacement cost.

Many weapon systems are designed for ships of a specific class. Placing one of these systems on a smaller ship requires additional bracing, more power, and larger redesign requirements. Thus weapons cost double the listed emplacement points when installed on smaller class ships. For this reason Fighters rarely have tractor beams and space transports rarely mount heavy turbo lasers.

Medium size and greater ships cannot have more than half their total emplacement points taken up by weapons in the same firing arc. Medium ships are limited by having a maximum number of weapons in the same firing arc equal to 1/4th their total emplacement points.

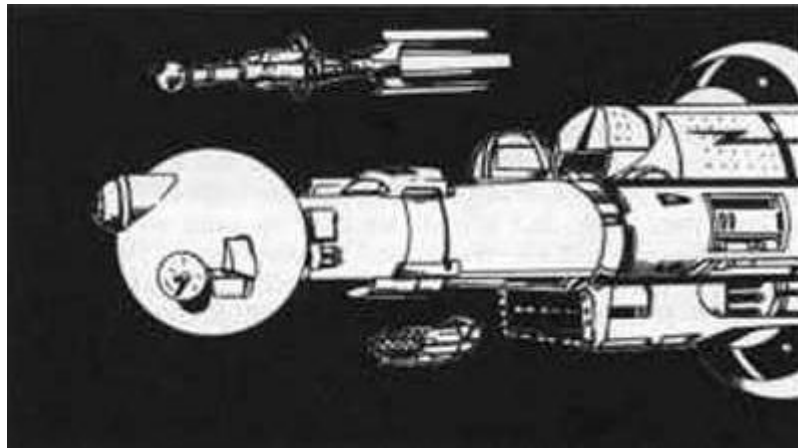
Ship Size Restriction	Emplacement Points		Construction Point Cost
	Civilian	Military	
None	0	0	0
Small	4	8	1
Medium	20	40	4
Large	40	80	8
Huge	60	120	16
Gargantuan	80	160	32
Colossal	100	200	64
Colossal I	120	400	128
Colossal II	150	600	256
Colossal III	200	800	512
Colossal IV	n/a	1,000	1,024
Colossal V	n/a	2,000	1,048
Colossal VI	n/a	3,000	2,096
Colossal VII	n/a	4,000	4,192

Determining Base Cost

Once you have determined the number of construction points of the space craft up to this point you can then determine the base cost of the ship. To determine the cost per construction point, cross reference the size of the vessel on the table below. It should be noted that specific equipment such as actual weapons, cloaking devices, sensors, etc. are applied separately after the ship's base cost has been determined.

Ship Size	Construction point Cost	Ship Yard Restrictions	Other notes
Small	1,000cr	Any ship yard	
Medium, Large, Huge	2,000cr	Any ship yard	
Gargantuan, Colossal	5,000cr	Class A ship yards	By permit
Colossal II	10,000cr	Class B ship yards	By permit
Colossal III	12,000cr	Class C ship yards	By permit
Colossal IV	14,000cr	Military class A ship yards	Military only
Colossal V	16,000cr	Military class B ship yards	Military only
Colossal VI	20,000cr	Military class C ship yards	Military only
Colossal VII	20,000cr	Military class C ship yards	Military only

It should be noted that characters desiring a permit to build certain sized ships may do so by signing a charter with a Mega-corporation. Charters usually mean that the craft will be registered as company property until the characters pay a certain amount of money with interest, or serve as company representatives for several years. The company will supply the permit, and will pay up to ½ the ship's cost, but will require that the company logo be emblazoned in plain sight on the ship, and the characters must wear company uniforms. Other concessions might be for company security safeguards, company security guards to be posted on the ship, or anything the company feels is appropriate dependent on the reputation of the characters they are dealing with.



Specialized Systems

Once the ship's basic structure has been determined the characters can concentrate on buying specialized equipment, which will determine what kind of ship they have built. Will it be a freighter, or a survey ship? Will it have a med bay, or an auto doc, and what weapons if any will be mounted on the ship. All these systems fall under the heading of specialized equipment.

Artificial Gravity Generator

Perhaps the most taken-for-granted technology incorporated into the creation of spacecraft in the Frontier, Artificial gravity generators are tied to micro-circuitry throughout a starship that generates a constant field of gravity allowing characters to move comfortably within a spaceship, regardless of the ship's velocity. Unless stated by the ship captain upon creation of his ship, all ships have a standard gravity of 1g throughout. Some freighter captains may chose instead to lower the gravity in their cargo holds to lessen the weight of cargo they have stored, which does not affect its mass or allows more cargo than listed but it makes it easier for the cargo to be moved on and off the ship. Artificial gravity generators cost is included in the base cost of the ship being built.

Astrogation Package

Any ship that is going to travel anywhere outside a planetary atmosphere must have an astrogation package. This includes a navigational computer which combine data from the ship's sensors and the astrogation sensors, which are included with this package and include Doppler scanners, gyroscopic gauges, sub-space scanners, gravity flux meters, and a powerful electromagnetic sensor. All these items help a ship's navigator plot courses through space and allow him to calculate the best routes to take, and can make course corrections as needed. The Astrogation and Navigational computer are included in the cost of a ship.

Communication Equipment

All Spacecraft are equipped with two basic communications systems: speed of light coms and Subspace radios. These two systems are included in new spacecraft at no extra cost. Speed of light coms are short range devices designed to allow for communications within a star system and are generally used for ship-to ship or ship to ground communications. Most speed of light communicators have an effective range of 10au (roughly 930 million miles) They are often linked to a ship's intercom system and can send messages to individual comlinks. Many older SL coms are designed only for audio signals, while newer models have video, or holo-vid capabilities.

Subspace radios however can send audio, video, and hologram communications over a range of a few dozen light years by transmitting a communications burst via a tachyon stream through Void space. The tachyon beam suffers from dispersal after roughly 24 light years, and completely disperses after 36 light years. This generally allows for communications between a starship and people at its destination and is used to receive news and weather reports before the ship arrives as most civilized systems have trade satellites in orbit around them that transmit signals via Void space giving approaching ships news and information they may find useful before they arrive. Most ships use the beacon function on their ships to send distress signals, or emergency warnings.

Main Computer

All Ships have a central computer which performs hundreds of tasks in order to make the ship function. This central computer is a level six computer. The computer's sole function is maintaining the spaceship. It regulates the ship's power distribution, monitors the ship's engines and power plant and maintains the ship's life support, as well as performs such minor tasks as controlling the ship's lighting and running diagnostics on all ship systems. This is a 6th level maxiprogram, leaving 30 levels of maxiprograms open for customization by the ship's captain. The ship's main computer is counted as part of the cost of the ship, so it has no listed cost, though additional programs must be purchased.

Escape Pods

Escape pods are single use space vehicles used to carry a number of passengers away from a space craft in distress to safety. Each escape pod can carry up to 6 passengers/crewmembers in cramped conditions away from a ship An escape pod does not add to the ship's overall cost, but takes up 2 weapon emplacement points/pod. Escape pods have the following Stats (as per vehicles not spacecraft):

Escape Pod

Size: Large Vehicle

Cost: n/a

Combat modifier: +0

EP: 70

Hardness: 8/Acid

DR: 9

Defenses: none

Slow: 750mph

Cruise: 1,500mph

Fast: 3,750mph

Top Speed: escape velocity

Handling: -1

Stealth: 9

Fuel: 1 hour of continuous thrust

Stations: 1 pilot

Cargo: 200lbs

Notes: Escape pods are launched from a ship towards a nearby planet, space station or ship and the pilot has only

limited control allowing him to make minor adjustments such as slowing the craft down when it enters a planet's atmosphere or steering it away from an obstacle. Pods carry automated emergency beacons that broadcast continually in all directions once the pod is launched. These beacons however can be turned on or off manually by the pilot of the pod. The beacon has a range of 10 au (about 930 million miles) and will transmit a signal for decades as it uses up very little power from the pod's power plant. An escape pod has an effective range of 20 million miles (travelling 1 million miles/hour) its life support will support 6 people for 2 days. And has the equivalent of 6 field kits, and 2 full med kits onboard.

Sensor Baffling technology

Though Illegal throughout the Frontier for civilian ships to have this technology, some spacers who's cargoes often are less than legal choose to pay exorbitant prices to install sensor baffling shielding to their ships. Sensor baffling increases the difficulty of spot checks using a ship's sensors to detect a "cloaked ship", and has the added effect of making the ship harder to lock on by an enemy ship's targeting system. Sensor Baffling systems can be found on the list for Ship Modifications equipment at the end of this section.

Tachyon Tracking Beacon

Tachyon tracking beacon launchers take up one weapon emplacement point and fire a tracer tag with a range of 5 (30,000 feet). The ship's gunner makes a standard attack roll to fire a tachyon tracking beacon, and if the roll succeeds the beacon causes no damage, but affixes to the targeted ship's hull. The beacon affixes itself with magnetic grippers that require a character trying to remove it to roll a Strength check (DC40) to remove it. The beacon is small and made of dense composite metals.

A tachyon tracking beacon that is successfully attached to the hull of a ship transmits a unique tachyon identifier that allows the ship that launched it to track the tagged ship, through the void anywhere it goes. The Tachyon tag however only lasts for 10 standard days before it runs out of power. The effective range of the tachyon beacon is ten light years between the tracker and the pursuing ship.

Tractor Beam Projector

A Tractor beam projector takes up 4 Weapon emplacement points on a ship, and creates invisible beams of energy that can immobilize and draw in objects. Most capital ships have several Tractor beam units mounted on their hull allowing them to capture enemy ships, and recover damaged fighters. Commercial cargo vessels use Tractor beams to move and maneuver large cargoes and or to transfer cargo between ships in space. Tractor Beams are generally not effective against small ships because they have rudimentary targeting systems and can't lock onto such fast, and maneuverable targets.

A ship's tractor beam has a range of 5 (30,000 feet) and can immobilize and draw in any ship between one or two size classes smaller than the capturing ship, meaning that a Colossal sized ship can immobilize and draw in any ship of large or Medium size, but not a small ship, since its tractor beam can't target something of that size.

A tractor beam requires a gunner to roll a standard to hit roll against its target, and if the roll hits causes no damage, but immobilizes the target if it is within the size and weight category that the beam can effect. Maneuvering a captured object requires the gunner to roll an Agility check (DC16) and if successful he can move the object where he desires it to go.

It is possible for a captured ship to escape a tractor beam so long as the ship is not more than one size category smaller than the ship that captured it. If the ship is the right size the pilot can roll a Pilot check against a DC of 18, and if he succeeds he has managed to break free of the tractor beam, but suffers 1-5 hull points of damage as the beam rips hull plates and external features from the ship.

Usually a tractor beam unit is built next to the ship's airlock, or vehicle access bay to allow crews to board captured vessels that have been drawn in by the ship's tractor beam. Because of their large size and great energy requirements Tractor beam units are rarely used on any ship under large size.



Space craft weapon information

Fire-linking Weapons

Ships that have more than one weapon of the same type with the same fire arc may choose to add a fire-linking program to their targeting computer and because the fire linked weapons use the same targeting computer and power source each weapon linked beyond the first only uses up one additional emplacement point/weapon. The fire linking program is a level one maxiprogram. The benefits of fire-linking a weapon is that it increases the damage die used on a successful hit by one class, so that a weapon that uses 6 sided dice would be increased to 8 sided dice if the weapons were fire linked, etc.

Point defense weapons

Because capital ships are vulnerable to fighter sized ships which they cannot generally target with their massive weapons the ship may choose to add smaller versions of weapons, approximately the size of weapons designed for medium sized ships. These weapons cost 2 less emplacement points (minimum 1 emplacement point), but their range is reduced to ½ normal since they drain so little power off of the ship's power plant. Point defense weapons require a level one maxiprogram in order for the ship's gunner to fire them using the ship's gunnery station.

Vehicle scale weapons

Some ships in the Frontier have made it a custom to add vehicle scale weapons to their arsenal for use when docked or when it is more appropriate than turning their Spaceship level weapons on an opponent since a ship's targeting systems are not designed to target objects as small as a medium sized humanoid. These weapons take up one emplacement point, and because their ranges are so limited they are seldom used in space combat except perhaps to repel boarders. Vehicle scale weapons require a level one maxiprogram in order for the ship's gunner to fire them from a specialized gunnery station.

Weapon Systems

Space craft can be fitted with a wide variety of weapons as shown on the table below:

PGS Weapon Systems

Weapon	Minimum ship Size	Emplacement Points	Range	Damage	Cost
Missile Battery					
5 missiles	Small	1	5	2d8	10,000cr
10 missiles	Medium	2	5	2d8	12,000cr
20 missiles	Large	2	5	2d8	14,000cr
Rocket Battery					
5 rockets	Small	1	3	1d10	8,000cr
10 rockets	Medium	1	3	1d10	10,000cr
20 rockets	Large	2	3	1d10	12,000cr

Missile Weapon Systems

Weapon	Minimum ship Size	Emplacement Points	Range	Damage	Cost
Assault rocket launcher-					
Assault Rocket	Small	1	5	3d8	10,000cr
Mine launcher-					
1 mine	Small	2	1**	2d6	2,000cr
5 mines	Medium	4	1**	2d6	4,000cr
10 mines	Medium	4	1**	2d6	8,000cr
Missile launcher-					
1 missile	Small	1	5	2d8	2,000cr
5 missiles	Medium	1	5	2d8	4,000cr
10 missiles	Large	2	5	2d8	8,000cr

Weapon	Minimum ship Size	Emplacement Points	Range	Damage	Cost
Rocket launcher-					
1 rocket	Small	1	3	1d10	1,000cr
5 rockets	Small	1	3	1d10	2,000cr
10 rockets	Medium	1	3	1d10	5,000cr
Seeker missile launcher-					
Seeker missile***	Small	1	5	3d8	30,000cr
5 missiles	Medium	1	5	2d8	50,000cr
10 missiles	Large	2	5	2d8	75,000cr
Seismic mine launcher-					
1 mine	Small	2	2**	2d12	4,000cr
5 mines	Medium	4	2**	2d12	8,000cr
10 mines	Medium	4	2**	2d12	16,000cr
Pod Caster-					
Antimatter					
5 pods	Large	5	10	10d20	1,000,000cr****
10 pods	Huge	10	10	10d20	2,000,000cr****
Plasma					
5 pods	Medium	4	10	5d4	8,000cr
10 pods	Large	6	10	5d4	16,000cr
Torpedo launcher*-					
Concussion	Small	2	10	3d4	4,000cr
5 torpedoes	Medium	4	10	3d4	8,000cr
10 torpedoes	Large	6	10	3d4	16,000cr
Ion Torpedo	Medium	2	10	3d6	5,000cr
5 torpedoes	Medium	4	10	3d6	10,000cr
10 torpedoes	Large	6	10	3d6	20,000cr
Plasma torpedo	Medium	2	10	6d6	6,000cr
5 torpedoes	Medium	4	10	6d6	8,000cr
10 torpedoes	Large	6	10	6d6	16,000cr
Photon torpedo	Medium	2	10	6d8	8,000cr
5 torpedoes	Medium	4	10	6d8	16,000cr
10 torpedoes	Large	6	10	6d8	32,000cr
Proton Torpedo	Small	2	10	6d10	10,000cr
5 torpedoes	Medium	4	10	6d10	20,000cr
10 torpedoes	Large	6	10	6d10	40,000cr

* A ship can carry 1 torpedo per emplacement point if small +1 additional torpedo per size category above small.

** Each mine senses objects within this range and if an object enters its range it discharges.

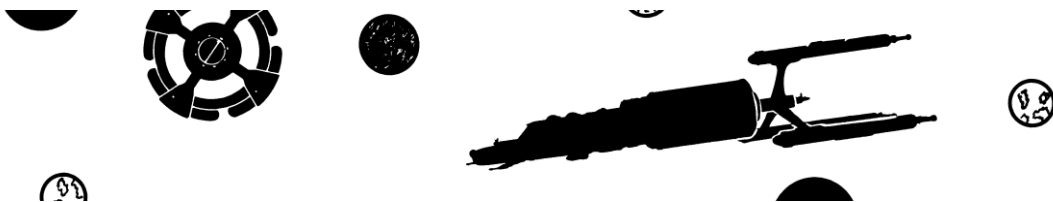
*** Each seeker missile adds +4 to the gunners chance to hit a target.

**** Possession of these weapons by non-military ships is highly illegal.

Beam Weapon Systems

Weapon	Minimum ship Size	Emplacement Points	Range	Damage	Cost
Disruptor-					
Battery	Small	2	5	3d10	25,000cr
Cannon	Large	2	7	4d10	28,000cr
Projector	Small	1	5	2d10	32,000cr
Electron-					
Battery	Small	2	5	3d6	20,000cr
Cannon	Medium	2	7	4d6	22,000cr
Projector	Small	1	3	2d6	15,000cr
Force-					
Battery	Small	2	5	3d8	22,000cr
Cannon	Large	2	7	4d8	25,000cr
Projector	Small	1	5	2d8	18,000cr

Weapon	Minimum Size	Emplacement Points	Range	Damage	Cost
Ion-					
Battery	Huge	4	10	6d6	25,000cr
Cannon	Huge	8	14	6d8	30,000cr
Laser-					
Battery	Medium	2	5	3d10	22,000cr
Cannon					
Light	Medium	2	8	4d8	25,000cr
Standard	Large	4	10	6d8	28,000cr
Heavy	Huge	8	14	8d8	32,000cr
Turbo	Huge	8	14	10d8	40,000cr
Quad	Huge	8	12	8d10	35,000cr
Assault	Gargantuan	10	20	8d12	50,000cr
Projector	Small	1	5	2d8	20,000cr
Twin projector	Small	2	5	2d10	22,500c5
Microwave-					
Battery	Small	2	2	2d8	12,000cr
Cannon	Medium	2	4	3d8	14,000cr
Projector	Small	1	2	1d8	5,000cr
Plaser-					
Battery	Medium	2	5	3d12	25,000cr
Cannon					
Light	Medium	2	8	4d10	28,000cr
Standard	Large	4	10	6d10	30,500cr
Heavy	Huge	8	14	8d10	35,000cr
Turbo	Huge	8	14	10d10	42,500cr
Quad	Huge	8	12	8d12	38,000cr
Assault	Gargantuan	10	20	8d20	75,000cr
Projector	Small	1	5	2d10	20,000cr
Twin projector	Small	2	5	3d10	22,500cr
Plasma-					
Battery	Medium	2	5	3d10	22,000cr
Cannon					
Light	Medium	2	8	5d8	25,000cr
Standard	Large	4	10	6d8	28,000cr
Heavy	Huge	8	14	8d8	32,000cr
Turbo	Huge	8	14	10d8	40,000cr
Quad	Huge	8	12	8d10	35,000cr
Assault	Gargantuan	10	20	10d12	50,000cr
Projector	Diminutive	1	5	2d8	20,000cr
Twin projector	Small	2	5	3d8	22,000cr
Proton					
Battery	Medium	2	5	3d20	28,000cr
Cannon					
Light	Medium	2	8	4d12	30,000cr
Standard	Large	4	10	6d12	32,500cr
Heavy	Huge	8	14	8d12	37,500cr
Turbo	Huge	8	14	10d12	45,000cr
Quad	Huge	8	12	8d20	40,000cr
Assault	Gargantuan	10	20	10d20	80,000cr
Projector	Small	1	5	2d12	22,500cr
Twin projector	Small	2	5	3d12	25,000cr



Modifying Space Craft

Spacecraft can be modified by using the Modification skill, or by adding equipment to the spaceship. Common equipment that can be added to a spacecraft include, but are not limited to adding defensive shielding, sensors, emergency equipment, etc. Below are listed various modification packages that can be purchased for a spaceship:

Item/ Package	Install DC	Range	Notes	Cost
Armor coat-				
Duroplas	10	n/a	+2 to DR, +1 Armor	1,000cr*
Duralloy	10	n/a	+4 to DR +2 Armor	2,000cr*
Hypersteel	10	n/a	+6 to DR +3 Armor	4,000cr*
Reflective paint	10	n/a	-2/die from lasers -1/die from plasers	4,000cr*
Armor plating-				
Light	15	n/a	+8 to DR +4 armor	8,000cr*
Medium	15	n/a	+10 to DR +5 armor	16,000cr*
Heavy	15	n/a	+12 to DR +6 armor	32,000cr*
Extremely heavy	18	n/a	+14 to DR +7 armor	64,000cr*
Auto doc unit	20	n/a	See Equipment listing	30,000cr
Auto pilot unit	18	n/a	+4 to Pilot skill requires Guidance comp.	10,000cr
Communication				
Encryption unit	18	n/a	+4 to decipher script difficulty to decode transmissions	40,000cr
Communications				
interception unit	18	10au	DC 15 to intercept standard communication, or DC 25 for shielded	100,000cr
Communication jamming unit	18	5	Negates all non-shielded communications	50,000cr
Communication shielding	18	n/a	50% chance of negating communication Jamming	65,000cr
Damage suppression system	18	n/a	-1/die of damage (Minimum 1pt)	20,000cr
Emergency beacon/receiver	15	10au	A beacon can transmit continually for 2 decades	2,000cr
Emergency power system	18	n/a	Supports ship systems for 20 hours	10,000cr
Fire control unit	18	n/a	Allows pilot to fire weapon systems	6,000cr
Guidance computer	16	n/a	+4 to Intuit direction +2 Pilot checks to avoid obstacles /hazards	10,000cr
Heads up display	16	n/a	Liquid crystal viewport/canopy display	1,000cr
Maneuverability Jets				
+2	15	n/a	+0 to Defensive rating	4,000cr
+4	18	n/a	+2 to Defensive rating	8,000cr
+6	20	n/a	+3 to Defensive rating	16,000cr
+8	20	n/a	+4 to Defensive rating	32,000cr
Reinforced construction				
+5 Hull points	15	n/a		2,000cr*
+10 Hull points	15	n/a		4,000cr*
+20 Hull points	15	n/a		8,000cr*
Sensor Suite	18	20	As equipment sensor	
Type A	20	10au		20,000cr
Type B	25	20au		40,000cr
Type C	30	40au		80,000cr
Skin sensors	20	n/a	Sounds alert if object comes in contact with the ship's hull	2,000cr*
Stealth module				
+2	20	n/a	-2 to hit space craft	50,000cr*
+4	20	n/a	-4 to hit space craft	100,000cr*
+6	25	n/a	-6 to hit space craft	200,000cr*
Aldorian Stealth Cloak (+8)	30	n/a	-8 to hit space craft	400,000cr**
Targeting Computer				
Mark A	18	n/a	+2 to attack	5,000cr
Mark B	18	n/a	+4 to attack	10,000cr
Mark C	20	n/a	+6 to attack	20,000cr
Mark D	20	n/a	+8 to attack	40,000cr
Mark E	20	n/a	+10 to attack	80,000cr

Item/ Package	Install DC	Range	Notes	Cost
Weapon mount		as weapon		
Fixed mount	10		Side mounted	+100cr*
Forward firing	15		+2 to hit	500cr*
Swivel mount	18		180 degree arc	2,000cr*

* Multiplied by spacecraft size as follows: Medium x3, Large x4, Huge x5, Gargantuan x6, Colossal x7, Colossal I x8, Colossal II x9, Colossal III x10, Colossal IV x11, Colossal V x12, Colossal VI x13

** Cost represents the cost to include one on an Aldorian spaceship. Cost can be up to 100 times more on the black market for non-Aldorians to purchase this device.

Miscellaneous Ship components

Once you have determined the critical parts of a ship, the player may wish to spend some time purchasing standardized components to complete his space ship. The following list gives price listings for many common compartment packages:

Space craft Compartments

Compartment	Effect	Construction Point cost
Airlock	Protected entry hatch into ship with decontamination unit	2
Armory	Weapon storage for crewmen holds 200kg/ship size	6
Bridge	Command center has 8 crew stations + captain's station	4
Brig	Cells holds 4 prisoners/ ship's size (DC 25 to open locks)	5
Cockpit	One or two station versions available	2
Computer station	Access to ship's main computer has 1 station/ship size	3
Crew Quarters	Standard accommodations for 2 crewmen/ship size	2
Cryogenics bay	Holds 6 Cryogenics units	10
Engineering bay	+4 to all engineering related skill checks	10
Entertainment bay-		
Holo-projection bay	Holds 5 crewmen per ship size	5
Holo-stadium	Holds 5 crewmen per ship size	5
Standard	Holographic and standard entertainment for 5 crewmen	2
Galley	Kitchen and seating for 4 crewmen per ship size	3
Gunnery station	gunnery station handles 1 ship weapon system	2
Hanger bay	Holds vehicles/space craft whose weight doesn't exceed Cargo tonnage displaced or is bigger than 2 ship sizes less Then the carrier's size	10
Head	Washroom facilities for 2 crewmen/ship's size	1
Hydroponics bay	Feeds 4 crewmen per ship's size	20
Laboratory	+4 to all scientific skill rolls	15
Med lab	+4 to heal skill roll and healing is as in a hospital	15
Machine room	+2 to Craft, Jury rig, Kitbash, Modification, and repair	15
Office	Office and meeting room for 2 crewmembers/ship's size	2
Recycler unit	+2 to repair skill for having materials on hand	4
Labor Pool	Maintenance equipment for 2 robots per ship's size	1
Laundry	Washing and drying facilities for clothing of 5 crewmen/ Ship's size	1
Shipboard Refinery	Prepares 1 ton of raw material/ship size per hour for sale, but produces 1 ton of waste/hour of use	10
Staterooms-		
First class	Accommodations for up to 4	5
Luxury	Accommodations for up to 2	5
Standard	Accommodations for 6 passengers	3
Steerage	Accommodations for 8 passengers	2
Storage-		
Secure	Holds 200lbs/ship's size (open locks DC 25 to access)	5
Standard	Holds 200lbs/ship's size	2
Tech Station	Repair facility level repairs possible	6

Space craft Equipment

Item	notes	Cost
Atmoprobes	Transmits atmospheric data to scientific ship's computer before burning up in atmosphere each probe takes up 1 weapon point	1,000cr
Cargo cranes	1 cargo crane can unload 10 tons of cargo/hour. Each takes up 2 weapon emplacement points	10,000cr
Decoy missile	Dif 20 to detect decoy only small, medium or large ship signatures are Possible. It comes with launcher travels at speed of 1 and signal lasts 1 hour	100,000cr
External vid-cams (per 6)	Sends feed to sensor operator and security stations range 60'	5,000cr
White noise broadcaster	Jams all personal communicators with a range of 5	20,000cr

Space craft Vehicles

These vehicles size is determined using the tables for non-spacecraft.

Launch

A launch is a small "space car" that is powered by a rocket engine, and is used primarily to travel from space stations to waiting ships that are not docked at the station itself. Launches are very short ranged vehicles and come in 4 or 10 passenger sizes. Ships of Large size or greater can carry launches, but each launch takes up 3 weapon emplacement points.

Launch (4 passengers)

Size: Medium-size **Cost:** 35,000 cr

Combat Modifier: +0 **EP:** 60
Armor: 6/Acid **DR:** 10
Defenses: none

Slow: 25mph
Cruise: 50mph
Fast: 75mph
Top Speed: 100mph

Handling: -1 **Stealth:** 10 **Fuel:** 40 bursts

Stations: 1 pilot **Cargo:** 500lbs

Notes: Characters traveling in a launch do not need to wear vacuum suits as the launch is fully pressurized and carries enough life support to provide air for its passengers for 10 hours. A launch's life support can be recharged off a ship's life support with no real impact on the ship's life support.

Launch (10 passengers)

Size: Large-size **Cost:** 70,000cr

Combat Modifier: +0 **EP:** 70
Armor: 8/Acid **DR:** 9
Defenses: none

Slow: 25mph
Cruise: 50mph
Fast: 75mph
Top Speed: 100mph

Handling: -1 **Stealth:** 10 **Fuel:** 40 bursts

Stations: 1 pilot

Cargo: 1 ton

Notes: Characters traveling in a launch do not need to wear vacuum suits as the launch is fully pressurized and carries enough life support to provide air for its passengers for 10 hours. A launch's life support can be recharged off a ship's life support with no real impact on the ship's life support.

Lifeboat

A lifeboat is essentially a larger version of an escape pod. Lifeboats can only be carried by Large or greater sized ships and each life boat takes up 5 weapon emplacement points. Lifeboats have the following Stats:

Lifeboat

Size: Huge Vehicle

Cost: 120,000cr

Combat Modifier: +0

EP: 80

Armor: 10/Acid

DR: 8

Defenses: none

Slow: 7,500mph

Cruise: 15,000mph

Fast: 30,000mph

Top Speed: 60,000mph

Handling: +0

Stealth: 8

Fuel: 1 hour of continuous thrust

Stations: 1 pilot

Cargo: 500lbs

Notes: A lifeboat can carry up to 20 passengers for 30 hours and unlike escape pods a lifeboat has better steering capabilities and better maneuverability. Like escape pods these ships have automated emergency beacons that broadcast continually in all directions once the pod is launched. These beacons however can be turned on or off manually by the pilot of the lifeboat. The beacon has a range of 10au (about 930 million miles) and will transmit a signal for decades as it uses up very little power from the lifeboat's power plant. A lifeboat has the equivalent of 6 field kits, and 2 full med-kits, emergency rations for 10 lasting one week, and a subspace radio onboard.

Mining Pod

Mining pods are specialized space vehicles that are used extensively in lunar or asteroid mining in the Frontier. Asteroid or Lunar mining however is a very dangerous profession, so these pods have reinforced chassis, though even with this they can be easily be crushed by stray space debris. Only Huge or larger spaceships can hold mining pods, and each one displaces 5 weapon emplacement points.

Mining Pod

Size: Huge Vehicle

Cost: 300,000 cr

Combat Modifier: +0

EP: 80

Armor: 12/Acid

DR: 12

Defenses: none

Slow: 150mph

Cruise: 250mph

Fast: 500mph

Top Speed: 750mph

Handling: +1

Stealth: 8

Fuel: 850 miles

Stations: 1 pilot

Cargo: 8 tons

Notes: A mining pod is used primarily for asteroid, or lunar mining, and is basically a huge version of a work pod that has a powerful drill and scoop allowing it to scoop up 4 tons of material into its hold per hour. The pod has enough life support to enable it to be used for 16 hours before it needs a 150cr recharge.

Shuttle pod

Shuttle pods are 20' long pods that are aerodynamic in design with twin ion/repulsor lift drives allowing it atmospheric and space travel. Shuttle pods have recently been introduced into the core and are not yet available in all but the newest ships being built in the Frontier. Shuttle pods can carry 4 passengers in addition to its pilot, and navigator. The Shuttle pod has a limited life support allowing it to maintain its passengers and crew for 24 hours before needing a 500cr recharge. A Shuttle pod takes up 5 weapon emplacement points and can only be installed in Large or greater sized space craft.

Shuttle Pod

Size: Large-size

Cost: 250,000cr

Combat Modifier: +0

EP: 80

Armor: 10/Acid

DR: 9

Defenses: none

Slow: 3,750mph

Cruise: Escape velocity

Fast: 1/2

Top Speed: 1

Stations: 1 pilot, 1 navigator

Cargo: 500lbs

Notes: A Shuttle pod can carry up to 4 passengers. The ship has excellent speed capabilities both in and out of a planetary environment. Shuttle pods have automated emergency beacons that can broadcast continually in all directions if the ship is in danger. These beacons can be turned on or off manually by the pilot of the shuttle pod. The beacon has a range of 10au (about 930 million miles) and will transmit a signal for decades as it uses up very little power from the pod's power plant. A Shuttle pod has the equivalent of 6 field kits, and 2 full med-kits, emergency rations for 6 lasting one week, and a subspace radio onboard.

Work Pod

A Work pod is essentially a one man, space going tool box that enables a character to make repairs or perform construction in space. A Work pod is 12' in diameter with 4 mechanical arms attached to it. Six small jets give the pod exceptionally delicate maneuverability, and these pods are heavily armored with reinforced frames to provide as much protection as possible for their occupant. Any Medium sized ship or larger can carry work pods, and each one takes up 2 weapon emplacement slots.

Workpod

Size: Medium-size Vehicle

Cost: 150,000 cr.

Combat Modifier: +0

EP: 60

Armor: 11/Acid

DR: 20

Defenses: none

Slow: 15mph

Cruise: 25mph

Fast: 50mph

Top Speed: 75mph

Handling: +4

Stealth: 10

Fuel: 20 bursts

Stations: 1 pilot

Cargo: none

Notes: A work pod carries a retractable laser welder, a riveter and net caster for retrieving floating objects. The net has a 300' tether and using it requires an Agility roll (DC 16). A pod has enough oxygen for 20 hours and may be recharged from a ship's life support without any real effect on the ship's supply.



Section Two: Space Combat

The rules for Space craft combat are in essence a variation on the rules for standard combat presented in the core rules, with certain minor yet significant changes as summarized below:

The Combat Round

A combat round is as long as it takes for all Spacecraft on the battlefield to perform all the actions that they have in that round and generally lasts between 6 seconds and a full minute of game time. In that time many actions can be performed, and it is assumed that the ships are taking evasive actions, and most of their attacks either miss their target or are probing or feeding combat information to the ship's targeting computer so that it can make a few decisive attacks that round. A combat round is broken up into stages as follows:

- 1) Check for surprise and resolve surprise attacks if surprise is indicated.
- 2) Declarations of any feats that are taken before Initiative, resolve any effects that extend for more than one round
- 3) Roll initiative for all ships that are taking actions in that round
- 4) All Ships with initiative take their actions (attacking, using feats etc.) and all damage rolls and effects are applied on their targets.
- 5) All remaining Ships that rolled initiative and lost may now take their actions (attacking, using feats etc.) and all damage rolls and effects are applied on their targets.
- 6) Any Space craft that held actions and haven't moved may do so at this point. If no other actions remain a new round begins starting with step 2.

Surprise

Ships decloaking, or who's stealth ratings allow them to slip through their targets sensors, or even ships suddenly coming out of Void space may all require surprise rolls. When the circumstance for surprise exists and player characters are involved surprise rolls are made as normal but if surprised the attacking ship gains one attack against its opponent's ship without its maneuverability bonus to its Defense rating. This free attack does not count against the attacking ship's normal attacks or number of attacks of opportunity in a round. Furthermore the surprised ship loses its initiative modifier for the round. A ship's surprise roll is made by the sensory officer on board a ship against a difficulty of 10+ the attacking ship's Stealth rating + its Size modifier.

For ships that are not controlled by important characters the spot check is modified by the quality of the ship's crew which is noted in a section below:

Size modifiers are determined as follows:

Small	+8 to difficulty	Colossal II	-8 to difficulty
Medium	+4 to difficulty	Colossal III	-10 to difficulty
Large	+2 to difficulty	Colossal IV	-12 to difficulty
Huge	+0 to difficulty	Colossal V	-14 to difficulty
Gargantuan	-2 to difficulty	Colossal VI	-16 to difficulty
Colossal	-4 to difficulty	Colossal VII	-18 to difficulty

Running silent: Spacecraft can increase their Stealth rating by running silent. In order to do this the ship must cut power to every non-essential system (life support and emergency systems only) and cannot do more than drift at its current speed and direction. When using this tactic the ship can be detected visually as normal, but using sensors to detect the ship suffer a +10 to the difficult. A ship running silent loses its initiative modifier for the round because it takes the ship's crew precious time restoring power to all ships systems in preparation for an attack.

Initiative

When rolling initiative with a group of Spacecraft as opposed to rolling singly for each craft, one person rolls 1d20 and the highest Initiative modifier is added to this number to determine which side moves first. Once determined, the ships within the group with the highest maneuverability rating take their actions before slower ships.

Actions in a Round

Ships make hundreds of actions in a round but only several actions are crucial. To determine how many actions a ship

can take in a round cross reference the ship's maneuverability on the table below. Note that a ship's actions like those of a character can be used for more than just attacking. Piloting maneuvers are counted against a ship's actions, not the characters actions in a round.

Maneuverability Rating	Actions Per Round
Poor (+0 to +1)	1
Average (+2 to +3)	2
Good (+4 to +5)	3
Excellent (+6 or better)	4

Holding Actions

A Pilot or Gunner can declare that they are holding a number of the ship's actions during the declaration phase. The player controlling the ship then rolls initiative but must reduce the ship's Initiative modifier by 1/2. When his turn comes the ship takes as many actions as it has remaining, but at any point in the round after its turn the pilot, or gunner may declare that he is taking an action up to the number of actions he has held, even before someone else takes an action on their turn.

Movement in a round

Because Spaceship combat in the Star Frontier's universe does not involve a game board, maps or counters movement is a relatively abstract concept. Ships move at attack speed in combat and faster ships gain a bonus to their Defensive rating while slower ships are easier to hit. To determine the bonus compare the attack speeds of both ships and cross reference the result on the table below:

Attack speed Difference	Bonus/Penalty
Up to 2x slower	+4
Slower	+2
Equal	+0
Faster	-2
2x Faster or more	-4

Making an Attack

If a hero is firing a space craft's weapons he makes a standard attack roll using his standard combat modifiers and gains a bonus to his attack equal to the bonus if any that the spacecraft's targeting computer gives him. If the attacking ship is not one with a heroic character manning the guns, the Administrator or player in command of the ship makes an attack roll with a modifier equal to the rank of the ship's crew + the ship's targeting computer modifier. The difficulty to hit is equal to the Defensive rating of the target ship or 10 + the size of an object in the case that he is targeting an stationary target. If his roll is equal to or greater than the difficulty his attack succeeds. Below are typical modifiers for combat:

Situation	Modifier
Objects size:	
Tiny	+8 to difficulty
Small	+4 to difficulty
Medium	no adjustment
Large	-2 to difficulty
Huge	-4 to difficulty
Gargantuan	-8 to difficulty
Colossal	-10 to difficulty
Target is human sized	-8
Target ship is 4 sizes smaller than attacker	-2/size category smaller

Crew Quality

Sometimes the player characters are minor players in space combat, perhaps they are mere gunners on a capitol ship for instance or if they are going against an Administrator controlled ship and the Administrator hasn't created every gunner and pilot in his fleet The Administrator may determine the quality of the crew on the following table either randomly or

by choosing from the list below to determine the modifiers he may need for such things as pilot skill checks, attack rolls, etc.

Die Roll	Crew Quality	Bonus Initiative	Combat Bonus	Skill Bonus
0	Trainee	-4	+0	+0
1-2	Poor	-2	+1	+1
3-4	Average	+0	+2	+2
5-6	Good	+2	+4	+4
7-8	Excellent	+4	+8	+6
9	Superior	+8	+10	+8

The Skill bonus applies to Spot checks when using the ship's sensors, Pilot checks, Astrogration rolls, and Repair rolls, as well as any Reflex saves required by the ship.

Critical Hits

A roll to hit of 20, unmodified by combat modifiers or circumstance bonuses is a critical strike. A critical strike will hit any Spacecraft regardless of its Defensive rating. A Critical hit is treated as an automatic called shot as determined by the gunner.

A critical hit on a Space craft causes no bonus damage but the critical may cause a specific effect that hinders or degrades the ship's performance or capabilities. If a Spaceship suffers a critical hit and the gunner does not determine what he was aiming for roll 1d6 on the following table.

Die roll	Result	Die roll	Result
01	Hull/Shield generator	04	Weapons
02	Engine	05	Sensors
03	Control	06	Cargo

The critical effect depends on the location hit and the severity of the damage. The severity of critical damage is measured in increments based on the ship's armor rating.

Light damage: Damage exceeds but is less than twice the Spacecraft's armor rating.

Moderate damage: Damage is at least twice but less than three times the Spacecraft's armor ratings.

Heavy damage: Damage is at least three times but less than four times the Spacecraft's armor rating

Severe damage: Damage is at least four times but less than five times the Spacecraft's armor rating

Catastrophic: Damage is at least five times the Spacecraft's armor rating

Hull/Shield generator: The Spacecraft's frame or superstructure is damaged. The spacecraft's Armor rating is reduced by a random number based on the severity of the damage. If the Spacecraft has shields, these are damaged instead of the spaceship's superstructure. The vehicle loses a random number from the amount of damage the shield can absorb each round based on the severity of the damage.

Severity	Hardness/ Shields lost	Severity	Hardness/ Shields lost
Light	1d6	Severe	4d6
Moderate	2d6	Catastrophic	5d6
Heavy	3d6		

Engine: One or more of the spacecraft's engine is damaged. Reduce the ship's acceleration/deceleration or cruise speed (at the attacking player's discretion) by a random number based on the severity of the damage. Ships whose Acceleration/Deceleration value reaches 0 are adrift. They cannot change speed until their engines are repaired

Severity	Speed lost	Severity	Speed lost
Light	1pt	Severe	4pts
Moderate	2pts	Catastrophic	5pts
Heavy	3pts		

Control: The Ship's control systems are damaged. All maneuvers suffer a circumstance penalty based on the severity of the damage.

Severity	Maneuver Penalty	Severity	Maneuver Penalty
Light	-2	Severe	-8
Moderate	-4	Catastrophic	-10
Heavy	-6		

Weapons: One of the weapon stations is damaged. Attacks with that weapon or battery suffer a penalty based on the severity of the damage.

Severity	Attack Penalty	Severity	Attack Penalty
Light	-2	Severe	-8
Moderate	-4	Catastrophic	-10
Heavy	-6		

Sensors: The spacecraft's sensor systems are damaged. All Skill checks for sensor operations suffer a circumstance penalty based on the severity of the damage.

Severity	Penalty	Severity	Penalty
Light	-2	Severe	-8
Moderate	-4	Catastrophic	-10
Heavy	-6		

Cargo: Any cargo the spacecraft is carrying is damaged. The percentage of the cargo (or specific items at the Administrator's discretion) is destroyed by the attack is based on the severity of the damage.

Severity	Percentage Destroyed	Severity	Percentage Destroyed
Light	-10%	Severe	-75%
Moderate	-20%	Catastrophic	-100%
Heavy	-50%		

Repairing spacecraft damage

An engineer or technician can attempt to repair damage to a Spacecraft. The DC is based on the severity of damage. These DCs assume the technician has the necessary parts and tools. For hull damage an engineer or technician must spend an hour (and make a successful repair skill roll) to restore 2 hull points of damage. A successful repair of a critical hit to a ship reduces the severity of the critical damage by one step (e.g. from severe to heavy). Each critical must be repaired separately. Critical hits to cargo ordinarily cannot be repaired.

Because of a ship's size engineers and technicians generally work in crews. A work crew consists of 3 to 6 characters with repair skills. When working in a crew one character (usually the most skilled) is the crew chief and he rolls his repair skill. The number of work crews that can work on a space craft and the amount of damage they can repair in an hour is shown on the table below:

Spacecraft Size	Number of work crews	Hull points Restored	levels of severity Negated*
Small	1	2	1
Medium	2	4	2
Large	4	8	4
Huge	8	16	8
Gargantuan	16	32	16
Colossal	32	64	32
Colossal II	64	128	all
Colossal III	128	256	all
Colossal IV	256	500	all
Colossal V	500	1000	all
Colossal VI	500	1000	all
Colossal VII	500	1000	all

* The levels of severity can be divided as the engineer sees fit among all the critically damaged systems repairing one or more of them at the same time.

For ships with large numbers of work crews working at the same time, the Administrator or player in control of the ship may roll one repair roll using the skill adjustment for his crew and if this roll succeeds then he can apply the number of hull points that they repair and reduce the severity of any critical damage as shown on the table above.

Combat Options

The following are options that are allowed to Players during Space craft combat. These options are available to all characters unless otherwise stated, and add more variation than just roll to hit, do damage that most combat devolves into.

Maneuvers and Stunts

By expending an action the Pilot can perform certain maneuvers. Some of these maneuver are so simple that they do not require a Pilot check while others do and are considered stunts. It should be noted that if an opposed check is called for the Pilot rolls his piloting skill, but his opponent rolls his Piloting Skill modified by Intuition as opposed to Agility as he must use his instincts and senses to anticipate what his opponent is doing. A definition of the various maneuvers follows:

Simple Maneuvers: A Simple maneuver such as a 45 degree turn is easy to perform and does not require a Skill check.

Stunts: Stunts are difficult and sometimes dangerous maneuvers that enable a Pilot to change his space craft's speed or heading more radically than a simple turn, or enables the pilot to do such things as bump his opponent's ship, avoid an obstacle, or take the ship through treacherous areas of space. Stunts always require Piloting Checks.

Maneuver Descriptions

Avoid Hazard: Occasionally a Space vessel must avoid space debris, including the remains of destroyed spacecraft or asteroids hurling at his ship. Avoiding such a hazard takes one action. On a failed check the Spaceship hits the obstacle. Certain obstacles (asteroids, debris etc.) cause damage to a spaceship if the pilot fails to avoid them, and a failed Pilot roll results in a collision with the object. Below are listed various difficulties for common hazards:

Hazard	DC	Collision Damage
Space debris/asteroids-		
Small	10	2d4
Medium	15	2d6
Large	20	2d12
Huge	25	2d20
Gargantuan	30	4d20
Colossal	35	6d20

Barrel roll: A Pilot can make his craft harder to hit by performing this maneuver, but as with all stunts the possibility of losing control is always a risk. At the beginning of the turn, before initiative is rolled the Pilot declares that he is using this maneuver and rolls his Pilot skill after expending an action against a difficulty of 17. If this roll succeeds the craft's defensive bonus for the round is increased by +1 per point of success scored (minimum +1) but the pilot or gunner suffers a penalty to hit equal to half the bonus gained by the craft (minimum -1). If the roll fails the pilot loses control of his craft, and during his turn must expend an action and roll a Reflex save (Dc 16) to regain control, otherwise the craft continues to spin and move forward until the pilot regains control, or it strikes something.

Dive: A skilled pilot can pull his ship into a steep yet controlled dive by rolling a piloting skill check (DC 16). The pilot must expend an action at the end of his dive and rolls a Reflex save (DC 18) to pull out of the dive safely. If the roll fails but is within 5 points of success the maneuver works, but the stress of the maneuver causes 1d4 points of hull damage to the ship. If the roll fails by more than 5 points the craft continues forward, until either the pilot regains control and pulls it out of its dive or it strikes an obstacle (treat as a collision). This highly dangerous move is often used to force a pilot's opponents to crash.

Hard Brake: With a hard brake the Pilot must make a Piloting skill check (DC 15) to instantly stop. If the check fails the Spacecraft stalls, and begins to drift. It takes 1-3 rounds to reset and restart a Spacecraft's engines once they have stalled.

Hard Turn: A Pilot who uses a hard turn maneuver can make a sharper than 45 degrees without the stress of the turn damaging his spacecraft. The pilot makes a skill check against a difficulty listed below, but if his roll fails the ship still makes the turn, but the stress of it causes a number of points of damage to the ship equal to the points below what he needed to make the roll. The DC's for the skill check are listed below:

Turn Radius	Difficulty
90 degree	10
135 degree	15
180 degree	20

Immelmann Turn: This difficult maneuver is a half-loop and a half-roll. The vehicle climbs, inverts, then executes a half-roll to return to an upright orientation and reverse its direction of travel. This is the only way for space craft to make a 180° turn-otherwise, they must make consecutive soft, sharp, or extreme turns to reverse their direction of travel. This maneuver requires a Pilot check (DC 17) to execute and costs one action. If the roll fails the pilot loses control of his ship. The ship will continue in a direction determined by the Administrator until the pilot regains control, or it crashes into an obstacle.

Landing: This maneuver is used to land a Space craft. The pilot rolls a Pilot check (DC 10) assuming that he is landing on a flat surface, such as a runway or landing strip. If he is landing in a hazardous surface use the difficulty for avoiding a hazard. If this roll fails the Pilot is allowed to make a Reflex roll (DC 17) to avoid a collision and can try to land again.

Loop: The vehicle executes a full loop over the course of the round, first gaining then losing altitude and ending up in the same position as it started. The Pilot rolls a pilot check (DC 17) to perform the maneuver. If he fails the roll, the pilot is allowed a Reflex save (DC 16) to maintain control. If the roll fails the pilot loses control of his ship. The ship will continue in a direction determined by the Administrator until the pilot regains control, or it crashes into an obstacle.

Ram: A Pilot can ram his spacecraft into an obstacle including another spacecraft. If striking a stationary object, no roll is needed. If the ramming attempt involved striking a person, or a moving vehicle, then the target is allowed a Reflex save with a difficulty equal to the attacking vehicle's pilot's Skill check. If the roll succeeds and a person was the target, the ship misses him. If the ram was intended for another Spaceship and the Reflex save was successful the damage done is halved, and the pilot does not have to roll a Piloting check to avoid losing control of his ship. Damage for this maneuver is the same as those for a collision. Ramming is the only action other than accelerating or decelerating that a pilot can perform in a round that he has declared that he is attempting this Stunt.

Sideslip: A Pilot check (DC 14) allows the driver to slip past obstacles. Side slips use up one action. Failing this maneuver results in the pilot making a Reflex save (DC 15) to avoid a collision.

Side Swipe: By expending an action the pilot can attempt to sideswipe another ship or other target and either cause damage without fully ramming the vehicle or object or cause the other pilot to lose control of his ship. This is an opposed roll meaning that the pilot of the attacking vehicle rolls his skill check against his opponent's Piloting Skill + Intuition (to avoid the move). Both roll against a DC of 15 with the highest result either succeeding and damaging the opponent, as well as forcing the victim to make a Reflex save (DC 16) or lose control, or avoid the attack.

If successful both vehicles take damage as if they have collided except that damage is ½.

Steep Climb: This maneuver allows the pilot to suddenly turn his ship into a climb often causing his opponents to fly past the pilot's craft. The pilot makes a piloting skill check (DC 16) to perform this maneuver and if he is being pursued the pursuers must roll a Reflex save against a difficulty equal to the pilot's success score or they fail to follow the craft they are pursuing. A Pilot who fails his piloting check makes the move but the stress on his ship is so great that the ship takes 1 hull point of damage/point rolled under the required success score needed.

Take Off: Usually no roll is needed for the pilot to take off unless it is hazardous to do so in which case the Pilot makes a Piloting check (DC 10) to take off without colliding with anything. If the roll fails treat it as if he has sideswiped an obstacle.

Collisions and Damage

A collision occurs when a spaceship strikes another vehicle, or solid object. A character can make a Reflex save (DC 15) to reduce damage by half in any event.

Collision Damage

The base damage dealt by a spacecraft collision depends on the speed and size of the ship and objects involved. Use the highest speed and smallest size of the two colliding objects and refer to the table below:

Highest Speed	Damage Die Type
Atmospheric	d2
1-2	d4
3-6	d8
7+	d12

Largest object/ Size	Damage multiplier
Human sized	x0
Small	x2
Medium	x4
Large	x5
Huge	x10
Gargantuan	x15
Colossal	x20

The pilot of the ship that caused the collision must immediately make a Pilot check (DC 15) or lose control of the ship, as well as the pilot of the second spacecraft in the case of two ships colliding. If the object struck by a spaceship was smaller than the crashing ship it is sent in a random direction as determined by the Administrator. If there is another moving object in its path a Reflex save (DC 14) is required by the pilot and the pilot of the ship in the spaceship's path to avoid causing a secondary collision.

Damage to a Spacecraft's occupants

When a vehicle takes damage from a collision, its occupants may take damage as well. The base amount of damage depends on the cover offered by the vehicle.

Situation	Damage
Not strapped into acceleration chairs, or emergency webbing	One quarter of damage taken by the vehicle
Strapped into acceleration chairs or emergency webbing	One 10 th of damage (if belted otherwise as above)

Each occupant may make a Reflex save (DC 17) to take ½ damage.

Other Hazards

The following are rules covering several situations that may arise due to the conditions of the area that the spacecraft is traveling through or that happen as a result of a failed piloting skill roll.

Spin: The ship goes into an uncontrolled spin. The ship moves in a random direction (roll 1d8). This continues each round until the pilot makes a successful check to regain control, or it the ship crashes into something. If the pilot was attempting a specific maneuver, it fails completely.

Feats and Piloting

Certain feats can be applied to Spaceship combat. Below is a list of feats that can be used by either the Pilot or Gunner on a spacecraft. The standard rules for the feat apply but actions lost are taken from the ship's actions, not the characters, and the feats effects are applied to the vehicle.

Feat	Pilot/ Passenger	Notes
Blindfight	Both	Applies to fighting or piloting in adverse conditions
Combat mind	Pilot	Apply bonus to piloting checks
Dodge	Pilot	
Far shot	Gunner	Applied to the gunner's weapon
Improved critical	Pilot/Gunner	

Feat	Pilot/ Passenger	Notes
Power attack	Pilot/Gunner	
Precise shot	Gunner	Can be applied to the gunner's weapon
Ride by attack	Pilot/passenger	
Shot on the run	Passenger	
Sunder	Pilot	Applies to vehicle damage

Other Spacecraft Rules

Losing Pursuit

A pilot can attempt a Hide check to lose his pursuer in a nebula, or dust cloud, or in an asteroid field or can make a Bluff check to misdirect his pursuers before making a hard turn causing his pursuers to fly past him. For hiding in nebulas or dust clouds the Pilot gains a +8 to his check due to circumstances.

Spacecraft vs. Vehicles

All vehicles have Endurance points, while spacecraft have Hull points which means a spacecraft can usually absorb ten times more damage than a vehicle, and on top of this starship's armor value further reduces this making most battles between spacecraft and vehicles a one sided affair. Starship mounted weapons multiply their damage by x10 against vehicles and characters, while vehicle mounted weapons striking a spacecraft have no modifier, and their damage is reduced by the ship's shields and armor.

Damaged spacecraft

When a Starship or System ship is reduced to zero it is disabled, although it might be repairable. If the vehicle was moving it will continue to drift at its current speed until it strikes an obstacle, and the Pilot can only make a simple 45 degree turn. A Spacecraft is destroyed when its Hull points reach a negative number equal to its armor rating.

An attack that disables a ship in one hit causes the ship to explode. A vehicle that explodes requires that everyone within must make a Reflex save (DC 20) or they suffer 10d6 points of fire damage. If the Reflex save is made the character takes ½ damage but may die from exposure to the vacuum of space if not wearing a vacuum suit.



Jamming effects

Window

Captains of ships with ion engines have learned that they can use the discharge of their ion engines to confuse radar detection. This requires an Engineer to roll a successful Use technology skill check (DC 16) to cause his ship's ion engines to release their ions in a cloud rather than towards the stern of the ship. If the roll fails by more than 5 points instead of doing what they intended the ship's ion engines fail causing the ship to drift and requiring the Engineer to spend 1-4 hours repairing the engines. The repair DC is 16 in this case.

If the engineer succeeds on his roll however the cloud of ions causes any ship trying to spot the ship to only see a cloud of ionized gas that fills an area 10,000km in diameter. Within this cloud any number of ships whose size doesn't exceed the dimensions of the cloud can be hidden. Using any other sensors to try to detect the ship suffer a +4 added to the hidden ship's Stealth rating as a difficulty to spot the ship.

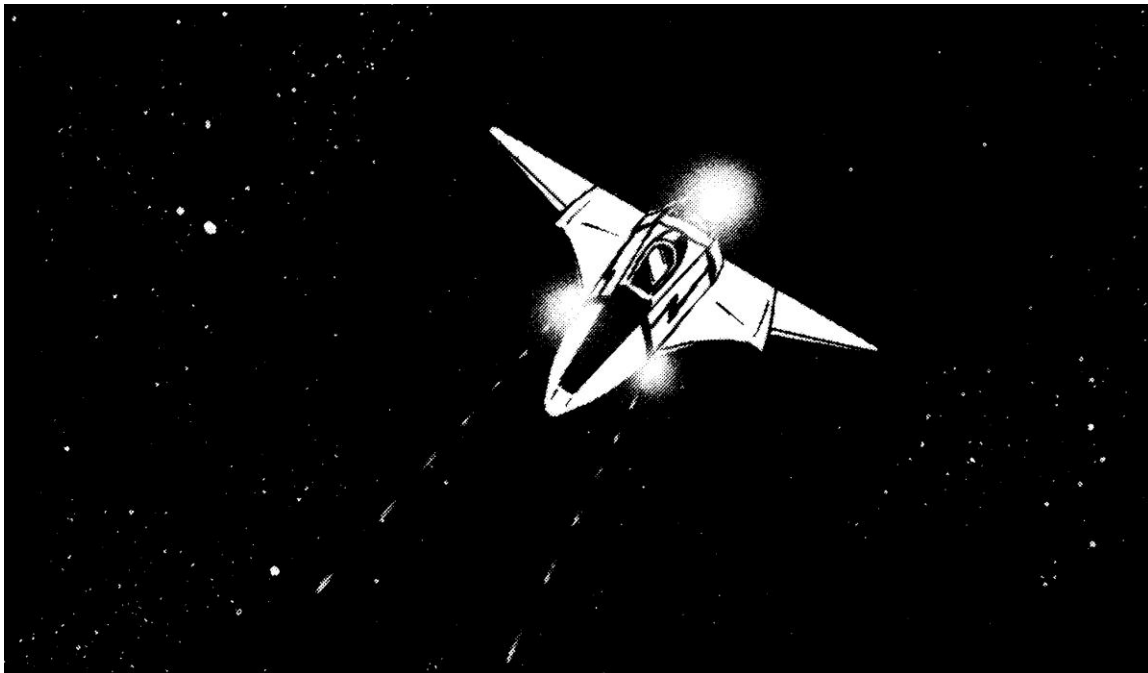
While this effect is maintained the ship creating the ion cloud cannot use its engines to accelerate or decelerate. The window effect lasts until the engineer again rolls his use technology skill (DC 16) to recalibrate the ion particle stream so that the engines work normally again. This procedure takes 2-5 rounds, and if the roll fails by 5 or more points the ship's engines fail as detailed above.

Tachyon disruption

Spacecraft that use tachyon based FTL drives can perform this dangerous action to cause havoc with their enemies subspace communication and FTL drives. The engineer can create a cloud of tachyons much in the manner of creating an ion window, but using his ship's FTL drive instead. The roll to do this is the same as above (Use technology with a difficulty of 16) but if he fails the roll by more than 5 points, not only must he repair his ship's FTL drive but he must also repair his ship's subspace radio as well. This repair takes 3-18 hours and has a difficulty of 17.

If the roll succeeds though, he creates a sphere of tachyons 10,000 km in diameter that causes all sub-light communication going into or out from the area to fail. Furthermore any ship in the cloud that tries to jump into the void has a 50% chance of damaging its FTL drive, and if it does manage to jump into the void it has a 10% chance of miss-jumping/ type of FTL drive used to generate the field.

While this effect is maintained the ship creating the tachyon cloud cannot use its subspace radio, or jump into the void. The window effect lasts until the engineer again rolls his use technology skill (DC 16) to recalibrate the FTL drive. This procedure takes 4-16 rounds, and if the roll fails by 5 or more points the ship's engines fail as detailed above.



Section Three: Space and the Heroes

This section provides many rules and guidelines for Players and Administrators that expand the scope of Star Frontiers into space. Within this section will be found rules for determining how long it takes for spacecraft to reach escape velocity, rules for donning space suits, and what characters can do while in them, and even rules for randomly determining if the characters escape from a ship before it explodes. Most of these rules can be treated as guidelines, and depend on the type of Star Frontiers game you wish to play.

Spacecraft movement rules

The following section discusses certain aspects of spacecraft movement not covered in the above sections. This includes information pertaining to handling miss jumps and rules for determining how fast a ship has to move in a planetary atmosphere to escape its gravity among other things. This section will also include information about the effects on characters that traveling on Pre-artificial gravity spacecraft have on them.

Miss-jumps

A spacecraft astrogator who fails his Astrogation skill check by more than 5 points when plotting a ship's course through the void will come out of the void in a very different location than he had intended. This is called miss-jumping. To determine where exactly the ship ends up, for each point of difference beyond the 5 points that he rolled he arrives 1 sector off of his course to a maximum of 2 sectors in either direction.

For example a ship who was travelling from Prenglar (coordinates 0-000.0) to Pan Gal (coordinates 5-016.2) that miss-jumped by a roll 7 points above what was required would end up within + or -2 sectors from his destination, either at coordinates 3-016.2, or 7-016.2. If the Administrator chose to have the ship appear at coordinates 3-016.2 the ship would appear in deep space with the closest star system being Midway at coordinates 3-032.0, however he could have the ship appear at coordinates 7-016.2 which is extremely close to Dral (coordinates 7-016.6). Of course the ship's navigator will have to figure out where the ship is.

If however the ship was to miss-jump at the coordinates occupied by a star system the chance that the starship collides with another starship, hits an asteroid or comet, or arrives too close to a planet or sun's gravity well increase dramatically. An Administrator should feel free to create some dramatic event that increases the thrill of the adventure, but should still offer the opportunity for the heroes to save their ship and their lives.

Void travel and common sense

While theoretically there is no limit to how far a starship can jump. However making exceedingly long jumps through void space should increase the likelihood that the ship miss-jumps. The table below shows the difficulty of successfully plotting a Void jump based on the distance the ship must cross.

Light years crossed	Difficulty	Light years crossed	Difficulty
1-50 light years	15	201-250	20
51-100 light years	16	251-300	25
101-150 light years	17	301-400	30
151-200 light years	18	401-500	40

A good rule would be to state that starships cannot make a void jump that exceeds 500 light years safely. If the starship's FTL drive is pushed beyond the 500 light year threshold regardless of the Astrogator's success roll the Starship will always miss-jump. Furthermore the starship's FTL drive will be damaged by the jump. Repairing this damage requires a tech-ex to make a Repair skill roll with a DC of 18, and takes 11-20 hours of repair time before it can be used again.

Spacecraft rules with a harder edge

Though the rules for the universal Role Playing System's version of Star Frontiers are geared more for cinematic action than traditional hard science fiction games some players and administrators who prefer harder science fiction may wish to include any of the following rules for his campaign. These rules are also useful for games set before artificial gravity became the norm in the Frontier.

Taking off from planets

A pilot preparing to launch a ship from a planetary surface cannot simply turn on the engines and "fly away;" he must perform various pre-flight preparations. Larger ships require more checks before liftoff, and planets with strong gravity are more difficult to pull away from.

Countdown: To determine how long the preflight checks will take, the Administrator should roll 1d10 for each size class a ship is (Small 1d10, Medium 2d10, Large 3d10 etc.). The result is the number of minutes (Pre-artificial gravity) or rounds (current tech level), that must be spent in pre-flight preparations. The preparations for launch can begin as soon as the pilot is on the bridge of the ship and strapped into his seat.

Gravity: As an optional rule the Administrator can multiply the number of minutes or rounds required for preflight checks by the planet's gravity. For example, if the pilot of a Pre-Artificial gravity Medium sized freighter must spend 16 minutes performing pre-flight checks on a planet with a gravity of 1g, the same checks would take $(16 \times 1.5) = 24$ minutes on a planet with 1.5 gravity.

Emergency Takeoffs: Pre-flight checks include time for the pilot to analyze computer reports on all of the ship's systems, make adjustments to the ship's instruments for temperature and thrust variables, study reports from scanners on weather and other factors that might interfere with the liftoff, and time to allow the engines to gradually warm up to thrusting temperature. This procedure can be cut short in an emergency, but there are risks.

The shortest amount of time in which an engine can be activated is one minute (10 rounds) from the moment the pilot straps into his chair. Obviously, this is not enough time to warm up the engines properly or check the ship's systems thoroughly.

If a pilot is trying to shorten his pre-flight checks, the number of minutes (or rounds) required for preparation should still be calculated normally. The pilot then announces how many minutes (or rounds) he will actually spend preparing for takeoff. The number of actual minutes (or rounds) is subtracted from the number of required minutes or rounds, and the difference is the percent chance that a malfunction will occur during liftoff.

When a pilot has determined the chance for a malfunction; the Administrator must roll d100. If the result is equal to or less than the percent chance for a problem, the Launch Malfunction Table is consulted. The referee makes this check by rolling 1d10 and matching the result to the table.

Die roll Result

- 1-6 The engines fail to start. Add 1-10 more minutes (rounds) to the preflight time before takeoff.
- 7-8 The engines start as normal but sputter shortly after takeoff. A Pilot check (DC 17) is required to land the ship safely otherwise the ship crashes* The ship lands 11-20 (10 +1d10) miles from the lift off point.
- 09 The ship's engines fail to start, and are damaged. This requires a repair skill roll (DC 17) and 11-20 hours of repair time before the engines can be used again.
- 10 The ship's engines work normally for 1d10 rounds and then shut off. The ship will crash at the end of the round.

* A ship that crashes suffers 1d6 hull points of damage/ round that it has been airborne and if not destroyed suffers 1d4 additional effects determined by rolling on the Spacecraft breakdown table above.

Launch speed

The speed of a spaceship or shuttle as it is taking off is determined primarily by the type of engines it has.

Chemical Drives: A ship with chemical drives must continually accelerate through the atmosphere to reach the speed necessary to escape the planet's gravity. The ship will increase its speed by 600'/round (6 seconds) while it is lifting off. The speeds a ship will have and the distance it will travel after various numbers of turns are shown on the Liftoff Table.

Round	Speed (feet/turn)	Altitude	Round	Speed (feet/turn)	Altitude
1	600'	600'	6	3,600'	12,600'
2	1,200'	1,800'	7	4,200'	16,800'
3	1,800'	3,600'	8	4,800'	21,600'
4	2,400'	6,000'	9	5,400'	27,000'
5	3,000'	9,000'	10	6,000'	33,000'

Once the ship gets beyond the reach of anything on the ground, these calculations are not necessary. For the Administrator's information, though, the ship will continue to accelerate until it reaches a speed of 198,000'/round, after 30 minutes of acceleration. At this point, it can escape a planet with 1g of gravity and soar into space.

Gravity flux Engines: Most modern spacecraft utilize what is commonly known as gravity flux engines. These engines use a variant on repulsor lift technology which allows them to travel through a planetary atmosphere at virtually any speed the pilot wants.

Gravity: The Administrator can increase or decrease a ship's acceleration on planets with gravities greater or less than 1g. The math involved in these problems is fairly complicated, but players can get a simple approximation by adding or subtracting a few feet/round to the ship's acceleration and making their own Liftoff Tables.

Landing on planets

Landing on a planet is much simpler than taking off, as the planet's gravity is working with the ship instead of against it. In general, as long as a ship has power or, in the case of some shuttles is capable of gliding, the pilot can set it down on any part of the planet he wants.

Of course, if that nice green field turns out to be a mass of liquid ooze, or the apparently solid hill is only a thin shell of dirt that will collapse at the slightest pressure, the Administrator should feel free to describe whatever result seems appropriate.

Most of the hazards of landing involve choosing a landing site. The Administrator must handle this case by case. The appearance of the planet should be described to the pilot (within the limits of the ship's sensing devices), and the pilot allowed to choose a point for touch-down. The Administrator then explains what happens as the ship lands and what the crewmembers see as they open the hatches.

Generally, most plains, grasslands, gravel flats, deserts and wide beaches should be safe to land on. Forests, areas of open water, extremely rough hills, or plains strewn with large boulders will prove too rough to land a ship on. All of these general cases are subject to the Administrator's modification, of course.

The referee may also, at his discretion, declare a random chance of engine failure, landing gear collapse, or other system failure. This is especially useful if the Administrator wants to strand his players on a planet for a while in order to provide some challenging adventure or obstacle.

Docking at Space Stations

Docking at space stations is a much more common procedure for most spaceships than landing on planets. Docking is a safe and routine procedure, but may take some time.

The docking area of a space station is at the station's hub: the center of the "wheel." Docking at the rim would be very difficult, because of the station's rotation. Also, there is no gravity at the station's center. The docking bay in the center of the station is a large, open area with openings to space at either end. A ship intending to dock must approach the station slowly and position itself outside the docking bay. Then, the ship's pilot uses maneuver jets to make the ship rotate at exactly the same rate as the station. As an example, a gargantuan station (5,000' in diameter) rotates once every 40 seconds.

To find out how long it takes a pilot to position his ship and match the station's rotation cross-reference the size of the ship by the stations size as shown on the table below:

Spaceship's Size	Space station's size				
	up to Medium	Large	Huge	Gargantuan	Colossal (or greater)
Small	1d10 rounds	1d5	1-2	1 round	1 round
Medium	2d10 rounds	1d10	1d5	1-2 rounds	1 round
Large	3d10 rounds	2d10	1d10	1d5 rounds	1-2 rounds
Huge	n/a	3d10	2d10	1d10 rounds	1-5 rounds
Gargantuan	n/a	n/a	1d10	1d5 rounds	1-2 rounds
Colossal or greater	n/a	n/a	1d10	1d5 rounds	1-2 rounds

Once the rotation of ship and station are matched, it is a simple matter for the ship to ease forward into the docking bay and slowly settle to one wall. Airlocks will extend to the hatches of the ship, allowing crewmembers to enter the pressurized environment of the station.

Pre-Artificial gravity effects on passengers/crewmembers

Accelerating, decelerating, launching and maneuvering a spaceship all have very significant effects on the passengers in the ship. This section is intended to give the Administrator some idea of what these effects are.

Atomic drives: If a ship equipped with atomic engines makes a slow liftoff, the effect on passengers in that ship is similar to taking a slow elevator ride. If the ship is raised rapidly, the effect is the same as riding a shuttle or other chemically driven ship during liftoff.

Chemical drives: All characters aboard a chemically driven ship that is taking off from a planet must be strapped into some kind of chair or acceleration couch, or risk taking damage from the tremendous forces of the ship's acceleration. The seats in shuttles are designed to handle this stress, as are the duty station chairs occupied by pilots, navigators and other crew members. If a character is not properly strapped into a seat, he must make a Reflex save (DC 12 +1/round of acceleration) during liftoff. If the check fails, the character is knocked to the floor and takes 2d6 points of damage.

While a ship or shuttle is accelerating through the atmosphere of a planet, characters cannot move around inside the ship. After the ship leaves the planet's atmosphere, interior conditions can be weightless or under normal gravity, depending on whether the ship is accelerating or coasting.

Traveling through space

When a ship is in space, the only time that it will seem to have gravity is when it is accelerating or decelerating. When a ship is coasting without thrust - even it is traveling at 66,000 miles/hour - all of the characters and objects inside the ship will be in freefall.

A shuttle will coast in freefall as soon as it leaves a planet's atmosphere. As it approaches its destination, however, it will need to decelerate so it can dock. In order to decelerate, the shuttle will use maneuver jets to turn around so its tail points toward its destination, and then use its main engines to slow down. During this deceleration, passengers will be pressed against the decks of the ship, creating the feeling that gravity is holding them there.

The same thing happens on a starship making an interstellar voyage. While the starship is either accelerating or decelerating, passengers will feel the effects of "gravity" but while in void space the ship is treated as if it is coasting. Passengers and crew making exceptionally long voyages through the void can suffer the effects of Space Adaptation Sickness unless they do not take precautions such as wearing body hugging gravity jumpsuits, and getting regular exercise (like jogging, or stretching exercises).

On a normal interstellar voyage, the starship pulls away from the space station and begins accelerating at 1g toward its destination star. While the starship is accelerating, the tail of the ship will be "down" to anyone aboard the ship, and the nose will seem to be "up."

After several days of acceleration, the ship should be ready to make its jump through the Void. Before the ship enters Void space, lights will flash and announcements will be made throughout the ship warning all passengers to strap themselves into seats or anchor themselves somehow.

A few minutes before the jump, the ship will stop accelerating and everything on board will float weightlessly. When the final preparations for the jump are made, the navigator will accelerate slightly and the ship will enter the Void. During the period the ship spends in Void space, characters will feel that their senses are very distorted; colors and sounds will be unfamiliar, and the sense of touch will seem to vanish completely.

When the ship is ready to come out of the void, the navigator decelerates slightly and the ship leaves Void space, and everything inside it will again float weightlessly. Several minutes will pass while the ship uses maneuver jets to turn so that its tail is pointed toward its destination. The ship will then use its main engines to decelerate, at the same time restoring a feeling of gravity to the passengers.

Again, the tail of the ship will seem to be "down" and the nose "up." The ship will continue to decelerate for several days, until it nears the- space station or planet that is its destination. At this point, passengers and crew will again be instructed to strap themselves into their chairs. The ship will stop decelerating, causing objects inside to become

weightless once more. Everything will remain weightless as the ship approaches the station, matches its rotation and enters the docking bay.

Combat maneuvers

When a ship is in combat, characters must be tightly strapped to their seats or they will certainly be injured by the ship's rapid turns and changes in speed. All crew members of any ship will have a solidly anchored Battle Station. If passengers are aboard, they must be strapped to their beds or chairs in order to assure their safety.

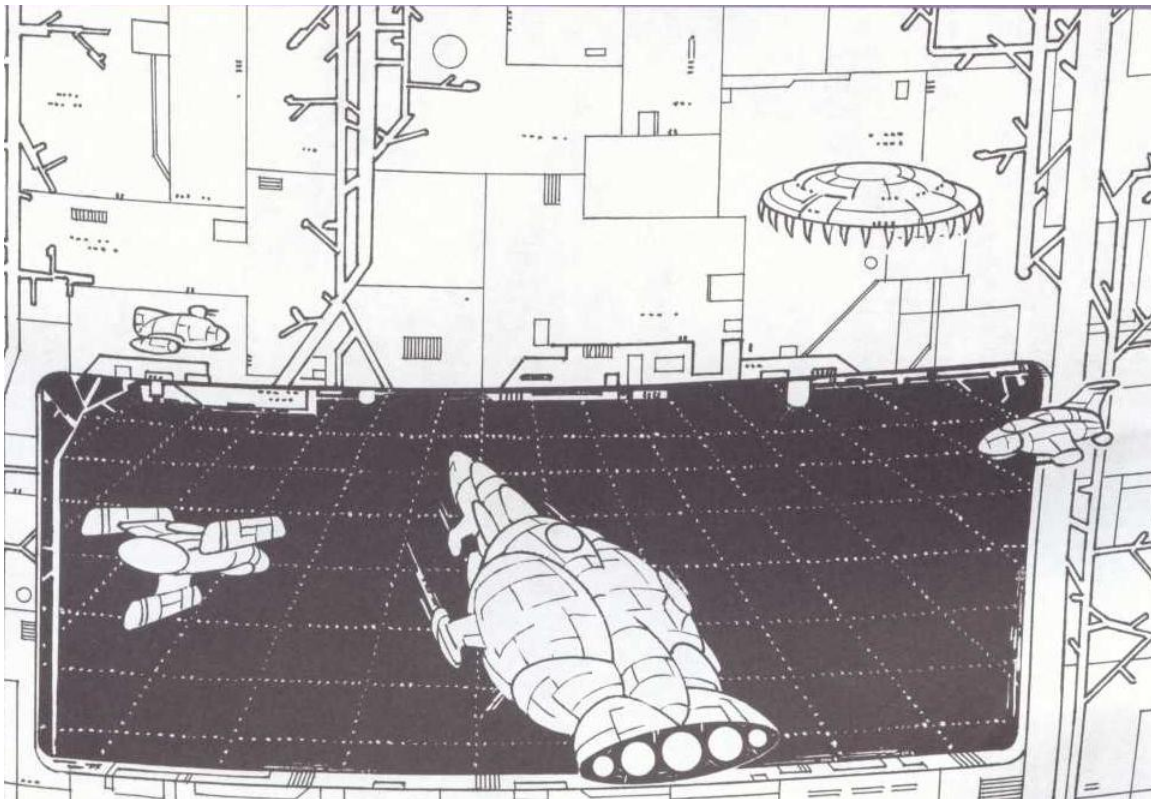
If a character is not strapped to a chair or bed, and the ship that the character is in goes through violent maneuvers, the character will be slammed repeatedly against the decks and bulk heads of the ship. The Administrator should roll 1d4 for each point of Acc/Dec that the ship uses during a round. The sum of the dice is the number of Endurance points of damage suffered by that character. If the character makes a successful Reflex save (DC 12 +1 per Acc/Dec point used in that round) the character manages to grab something and hold on for dear life, reducing the damage by half (round fractions down).

If a character passes this Reflex save, he can try to move toward a safer place during that turn. The character can move at one-half his normal walking movement rate. Until the character is strapped in, however, the character should suffer damage every turn that the ship accelerates, decelerates or maneuvers.

Space Stations

Space stations spin rapidly so that centrifugal force will simulate gravity along their outer rims. This "gravity" is strongest at the rim of the station, and gradually drops to nothing at the center (hub) of the station. A station's rim and hub are connected by elevators that run through the "spokes" of the wheel. These elevators are adjacent to the airlocks that open into the docking bay. As the elevator moves toward the rim of the station, the gravity gradually increases until it reaches about 1g at the rim.

Stations usually have several levels of decks along their rims. The gravity is strongest on the deck farthest from the hub, but the change from deck to deck is barely noticeable. The gravity does not become significantly lower until characters approach the zero gravity region near the hub.



Spacecraft maintenance and chance of breakdown

Spacecraft like any other vehicle requires maintenance to keep the ship in working order, and spacers know all too well that a critical ship system breaking while the ship is traveling through space might mean the death of everyone onboard and so they often are very diligent about keeping up with the ship's maintenance schedule.

Of course the age of the starship has a lot to do with the chance that a ship system will break down, as ship systems deteriorate after working for long years, and as more systems need to be replaced rather than overhauled the cost of keeping a ship running at full efficiency increases dramatically.

To make things easier it is assumed that a ship's captain must pay an annual maintenance fee equal to 40% of the initial cost of the ship +5%/decade that the ship has been in operation. This cost covers not only the ship's overhaul, but includes such things as licensing fees, docking fees, cargo permits, registration with the Frontier Energy commission if the ship has radiation producing drives, recharging the ship's life support and fuel costs.

Of course ships that are owned or chartered by a mega-corporation benefit from the Corporation paying for many of the ship's maintenance fees. Captains and crews of such ships only pay 20% of the initial ship's cost in maintenance fees (the corporation covers the rest). Of course in return the Corporation expects the ship's captain and crew as employees of the company to wear company uniforms, have their ship display company logos and whatever other stipulations they may impose on the group. Other benefits of having a ship that has been chartered to a Mega-corporation are detailed elsewhere in this book.

A ship that skips its annual maintenance (the captain and crew do not pay the yearly maintenance fee) will suffer a 1% chance per year the ship has been in service of suffering a mishap each time the ship makes a voyage, until the maintenance fees are paid. A mishap could be a physical break-down, or could involve such things as company representatives, Star Law custom officials, or bounty hunters showing up to collect the maintenance fees owed by the ship's captain and crew.

The following table can be used by the Administrator to randomly determine if something breaks down in a ship that has missed making its annual maintenance payments.

Die roll	Result	Difficulty	Repair time
01	1 or more of the ship's atomic engines hyper-ignites and must be jettisoned. The spaceship loses 1 point Acc/Dec per engine lost.	n/a	n/a
02	Life support failure: All characters must wear vacuum suits until the damage has been repaired	17	1d10 hours
03	Sensors damaged: One or more sensors range reduced to ½	15	1-4 hours
04	Communications damaged: standard communications lost	15	1-4 hours
05	FTL communications damaged: communications lost until repaired	16	2-8 hours
07	Weapon turret jammed: Weapon cannot be fired until repaired	16	2-8 hours
08	Drive program falters: standard engines shut-off until repaired	18	11-20 hours
09	FTL Drive shutdown: Forces ship out of void space.	18	11-20 hours
10	Power plant damaged: ship on emergency power until repaired	18	11-20 hours
11	hull breach: ship loses 1-5 hull points and section decompresses	16	2-8 hours
12	Food storage failure: 1-10% of consumables spoil if not repaired in 1-2 days	15	1-4 hours
13	Astrogration sensors damaged: no void jumps until repaired	18	3-18 hours
14	Astrogration computer failure: +2 to all jump difficulties until fixed	16	2-8 hours
15	Habitat control damaged: temperatures raise or lower 20-80 degrees until repaired	17	3-18 hours
16	Power failure: lights not working until repaired	15	1-4 hours
17	Electrical fire: roll again to determine what system is damaged	16	2-12 hours
18	Tactical computer damaged: -2 to all combat rolls until repaired	17	2-5 hours
19-20	Roll twice on table and combine results		

Random spacecraft ages and Discount prices

Due to the expense of building ships, most characters fortunate enough to acquire a spaceship will not be purchasing a brand new just constructed space craft. In the core characters can often find ships that are relatively new (1-20 years old) but they do not get a discount of any kind when buying such a ship. However as the character travels further away from the Core he will find much older ships for sale at prices that are less then listed, though he may have to spend a little money making sure the ship is space worthy.

Spaceships that are generally for sale in the Central systems will usually be 11-20 years old and the characters may purchase them at a discount of 30%, but they will need to pay 10% of the ship's cost to insure that the ship is space worthy.

Characters buying spacecraft in the outer systems or the Rim Coalition will find ships for sale at 50% of the cost of the same type of ship in the core. These ships however tend to be 21-40 (20 +1d20) years old. These ships however require that the character pay what he would pay normally to maintain that ship (40% of the true ship's cost) to bring the ship up to code.

In-ship Communications

As part of every ship's superstructure cost is the cost of an intercom system throughout the ship. Each section of the ship has one or more intercoms that allow characters throughout the ship to communicate with other sections of the ship. In addition each intercom has a master intercom that is usually located in the captain's quarters or in his office, and allows him several options other than just to communicate with other sections of the ship. Details pertaining to these intercoms is as follows:

Intercoms

Most ship intercoms have two settings: speak and selective speak. However the master intercom has four settings: monitor, selective monitor, speak and selective speak. Each of these settings is explained below.

Monitor (master intercom only): The master intercom can be set to monitor, which activates every microphone and speaker linked to the intercom system. This allows the ship's captain to hear what is being said in every other ship compartment, and to speak to the entire ship from the master intercom.

Selective Monitor (master intercom only): The captain of the ship can set his intercom to monitor two or more compartments on the ship and listen to them. Selective monitoring can be done between the master intercom and any speakers. This allows the captain to go to his stateroom or office and eavesdrop on any section of the ship.

Speak: The speak setting allows an individual to speak into the intercom's microphone and be heard in all the compartments of the ship.

Selective Speak: This setting allows the operator to select any compartment or compartments on the ship and give a spoken message to those compartments only.

Local Detectors

Local detectors are devices that can be used to locate and identify objects and creatures that are near the spaceship. Local detectors include portholes, and cameras.

Portholes: A porthole is a duraplas "window" to space. It can be placed in any compartment that is against the outer wall of the ship, at a cost of 50cr per 2' in diameter or square area of the porthole. Any number of portholes may be placed on a ship.

Cameras: Cameras on the hull of a ship can be used to scan the area around the ship in all directions. Cameras are monitored at screens on the bridge, and may also make recordings of what they see. These recordings are especially useful to research and exploration teams. A camera can record up to 20 hours, worth of images/function point stored on the ship's main computer. A series of six cameras, six screens, the recording mechanism and a control panel costs 25,000cr.

Half-size versions with three cameras and three screens are available for 15,000cr, but these have only a 50% chance of covering a specific area at a given time. Of course, the controls allow the cameras to be moved to any position in one combat turn.

Optional equipment

The following equipment has been designed to expand the options of spacers who wish to use their spacecraft to make a profit in the Frontier. Most Spacers will realize rather quickly that though they have a newfound freedom to travel among the stars, their freedom comes at a high price. Maintaining a spaceship is an incredible drain on the resources of any individual or small group that is not affiliated with a Mega-Corporation, so some turn to mining, or supplying food to colonies, or transporting people to make a living.

Agricultural equipment

One of the most lucrative businesses available to Spacers who possess system ships is supplying agricultural products to colonies. An Agricultural spaceship uses some of its cargo space to create a large hydroponics bay. This conversion not only includes adding a fluidic system and nutrient solution tanks to the bay but also include removing the hull plating in the bay and replacing it with duralloy solar collectors. The cost of the conversion and the supplies needed to maintain a hydroponics bay are as follows:

Equipment	Cost/tonnage displaced
Hydroponics conversion	2,000cr
Nutrient solution	1,000cr
Seeds	500cr
Solar collectors	4,000cr

Growing Schedules: A crop will grow and be ready for harvest after one month. This crop will feed 50 beings per ton of cargo space converted into a hydroponic bay. If the owner of the ship puts 10% of his crop back into the "fields," however, he can start growing a new crop without buying additional seeds or nutrients.

Hydroponics Maxiprogram: The hydroponics maxiprogram is a level one program that is in reality just a modified life support program. The hydroponics maxiprogram regulates the temperature, light and water in the hydroponics bay.

Farming robots

Farming robots are squat machines that are designed to maintain the crops of a hydroponics bay. Every hydroponics bay should have at least one Farming robot/10 tons of space it displaces.

Profession: Agriculture	Level: 1	Cost: 3,300cr
Size: Small	Endurance Level: 1	EP: 20
Str: 8 (-1) Ag: 12 (+1) Sta: 10 (+0)	Log: 12 (+1) Int: 12 (+1)	Per: 8 (-1)

Combat Modifier: +0	Initiative Modifier: +0
Resistance rolls: Fortitude: +0	Will: +1
Defenses: none	DR: 12

Combat Abilities: Robots are immune to Toxins, Paralysis, Stunning, and Disease. Robots are not subject to critical hits, subdual damage, ability damage, ability drain, or energy drain. They are immune to any effect that requires a Fortitude save unless it also affects objects. A robot is not subject to death from massive damage but is immediately destroyed when reduced to 0 Endurance points or less. Robots do not eat, drink, breathe, or sleep. Because a robot's brain is electronic and it has no sentient mind, it is immune to mind-influencing effects

Skills: Analyze (plants) +2, Appraise (Produce) +2, Drive (Agricultural machinery) +2, Intuit direction +2, Knowledge: Agriculture +2, Knowledge: Nature +2, Listen +2, Profession: Farming +4, Repair (agricultural machinery) +2, Search +1, Spot +2, Use Technology +2, Wilderness lore +2

Languages: Pan-Gal (Understand only), Robotic

Special Abilities

Low light vision (Ultravision)

Ambidexterity

Robots do not eat, drink, breathe, or sleep.

Upgrades: Enhanced agility (+2), Enhanced intuition (+2), retractable tool arm (Gardening shears, gardening trowel, nutrient spray bottle), rust inhibitor, Storage compartment.

Movement: 40'

Notes: Farming robots are small barrel shaped robots with two squat legs and pair of thin retractable limbs. The first is a standard manipulator, while the second limb is a telescoping tool arm. Farming robots have a small round photoreceptor and have a small vocal grill that allows them to communicate in short bursts of robotic which sounds like electronic hissing punctuated by beeps to non-machines. Farming robots are very inexpensive machines that are quite common throughout rural areas of the Frontier.

Exploration equipment

Though most exploration spaceships belong to corporate or UPF agencies, occasionally private researchers will either outfit their own star craft, or charter a spaceship for an expedition into the great unknown. The following special equipment has been developed to assist space scientists in their exploration of space.

Landing drones

Landing drones are more sophisticated than atmoprobes. A drone is about the size of an aircar and takes up 5 weapon emplacement points. It is launched and travels just like an atmoprobe. When a drone reaches its destination, it slowly descends through the atmosphere (if there is any) and makes a soft landing on the planet's surface. As it descends, it sends reports about the planet's atmosphere to the ship that launched it. When it lands it begins sending geological information as well.

A Science specialist is needed to interpret the data from a landing drone. This is resolved by the specialist rolling an Analyze sensory data skill roll with a Difficulty as set by the Administrator. Because of the sophisticated lab equipment in a landing drone, however, the scientist gets a bonus of +2 to his analysis roll.

A drone costs 100,000cr, and must be purchased at a Class I or II spaceship construction center. It requires a level 3, computer maxiprogram in order to accomplish its mission. The landing drone can be reused if the exploration ship travels to the planet the drone is on, lands on the planet, and remounts the drone. Remounting takes 20 hours, divided by the number of characters helping. Robots can help remount a drone, as long as at least one character is present for each robot.

Remote Probes

Probes are often used to examine areas that would be fatal to living creatures, such as the atmosphere of a star or the interior of a highly radioactive cloud. Probes used in research are more sophisticated than those used in exploration. A probe will send data back to the launching ship, including information on gasses, temperature, radiation, nuclear activity, wave lengths of light, gravitational effects and other potentially interesting or dangerous phenomena. Details about the "other" category are left to the Administrator's discretion.

A Science specialist is needed to interpret the data from the remote probe. This is resolved by the specialist rolling an Analyze sensory data skill roll with a Difficulty as set by the Administrator. Because of the sophisticated sensors and scanning equipment in the remote probe, however, the scientist gets a bonus of +2 to his analysis roll.

A remote probe costs 100,000cr. It requires 3 weapon emplacement points to mount on a ship, and a level 2, computer program to coordinate the analysis and relaying of data.

Mining equipment

The following specialized equipment is available for Spacers who wish to use their spacecraft in mining operations. Most mining operations in the Frontier take place on hostile worlds or on asteroids. Mining operations can be very profitable but they often attract dangerous types such as pirates, or claim jumpers.

Ore scoop: An ore scoop is a device that can be used to tunnel into the surface of an asteroid or other planet or planetoid with a gravity less than standard (1.0). The ore scoop attaches to the nose of any small or medium sized ship, and attaches to the ship's cargo hold. The scoop adds 16,000cr to the cost of the ship and adds a level one Mining program to the ship's main computer.

The ship's ore scoop can scoop mined material into the ship's cargo hold at a rate of 4 tons/hour. Of course the ore being mined is unrefined and must be processed either onboard the ship or in another processor center before it can be sold.

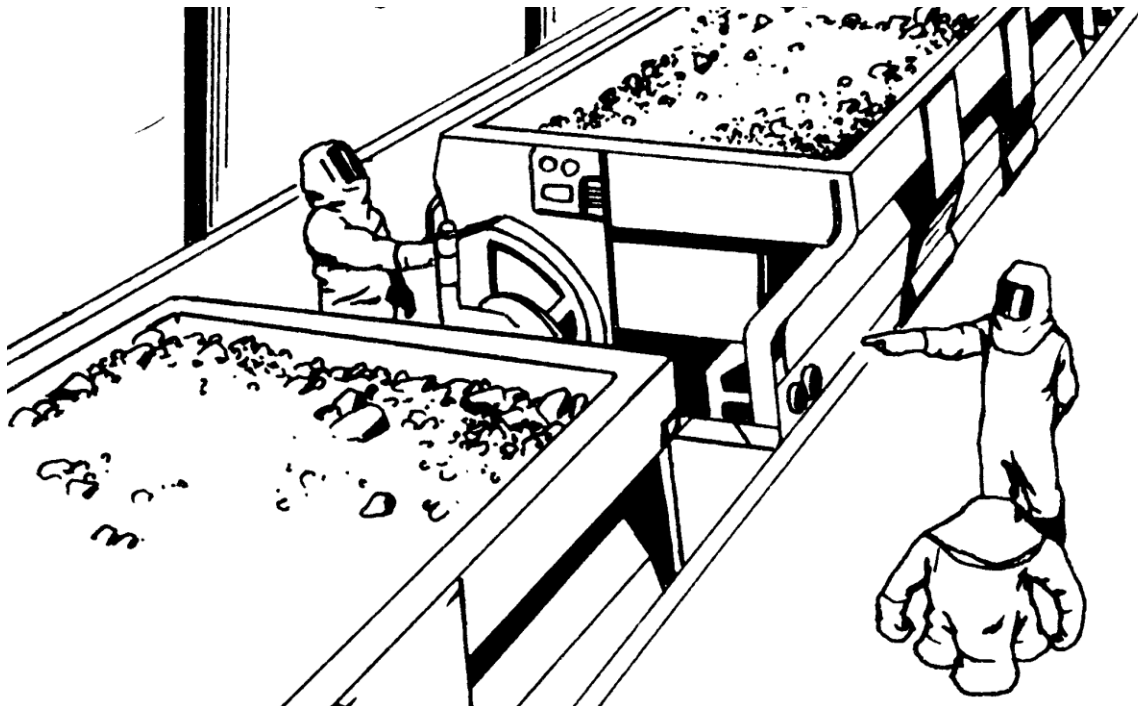
Processing equipment

Processing is the act of removing a valuable mineral or element from ore that has been removed from a planet, asteroid or moon. Because of the high cost of space travel, mining operations almost always process their ore at the mine. This way, only the valuable minerals are transported on ships returning to civilization. Two types of ore processing systems are available. One is based in a ship's hold and is listed under the spaceship compartments table, and the other is set up on a planet and is detailed below.

Surface-Based Processing: A Mineral Refinery (MR) can be carried to a planet or large moon and set up on the surface. A mining ship with 5 weapon emplacement points can carry the components of an MR with a special one way launcher that when activated will allow the ship's pilot to remotely fly the MR to the surface of the planet or asteroid. This requires the pilot roll a Pilot skill check (DC 15) to land the pod safely. If the roll fails by less than 5 points the MR lands but must be repaired before it can function. Any failure over 5 will destroy the MR.

Once the refinery is on the surface of the moon or asteroid it takes a team of 6 techs (characters or robots) 2 days to assemble the refinery. The refinery usually is left on the planet or asteroid after the mining operation is done; even if it will not be used in the future, the payoff for valuable minerals (gold, silver, platinum, or titanium, to name a few) will be greater than the cost of carrying the MR back to the ship.

Once the refinery is working it can be used to process up to 10 tons of unrefined ore per hour, and results in 3-8 (1d6+2) tons of ready for sale minerals or metals/hour. Of course this refined ore must be transported to the ship's cargo hold from the mining site. An MR can be purchased at any spaceship construction center for 200,000 Cr.



Mining Robots

Mining operations often employ several teams of specialized robots to dig and collect unrefined ore as opposed to using living beings because robots do not require life support, or bulky vacuum suits which are often a requirement when working in the often inhospitable environments where most mining operations take place. Mining robots tend to be heavy duty machines with treads instead of legs and sport three limbs, two which are heavy duty manipulating limbs, and one which is a combination shovel, pick and drill. Mining robots have the following Stats:

Profession: Mining robot

Size: Large

Str: 30 (+10) **Ag:** 10 (+0) **Sta:** 20 (+5)

Level: 1

Endurance Level: 1

Log: 12 (+1) **Int:** 10 (+0) **Per:** 8 (-1)

Cost: 48,000cr

EP: 55

Combat Modifier: +0

Resistance rolls: **Fortitude:** +6 **Reflex:** +0

Defenses: Reinforced construction 5/acid

Initiative Modifier: -2

Will: +0

DR: 11

Combat Abilities: Robots are immune to Toxins, Paralysis, Stunning, and Disease. Robots are not subject to critical hits, subdual damage, ability damage, ability drain, or energy drain. They are immune to any effect that requires a Fortitude save unless it also affects objects. A robot is not subject to death from massive damage but is immediately destroyed when reduced to 0 Endurance points or less. Robots do not eat, drink, breathe, or sleep. Because a robot's brain is electronic and it has no sentient mind, it is immune to mind-influencing effects

Skills: Analyze: Structural integrity +2, Analyze: Mineral samples +2, Appraise: Unrefined ores +2, appraise (gemstones) +2, Drive (cargo loaders) +1, Intuit Direction (subterranean) +1, Knowledge: Geology +2, Listen +1, Profession: Mining +4, Search +2, Spot +1 Use Technology +2

Languages: Pan-Gal, Robotic

Special Abilities

Darkvision 60'

Ambidexterity

Robots do not eat, drink, breathe, or sleep.

Upgrades: Enhanced Stamina (Sta +10, EP: +25), Enhanced Agility (+4), Enhanced Strength (+10), Environmental adaptation (choose), Reinforced construction (5/acid), tracks, extra limb (shovel, pick, drill multi-tool)

Movement: 30'

Notes: These machines stand roughly 8' tall and are made of heavy duty duralloy with reinforced plating protecting their joints. The robots trunk becomes a reinforced rectangular unit with heavy duty tracks that are protected by duralloy plating. The robot has two manipulating limbs and behind their back is a retractable tentacle that ends in a multi-tool (shovel, pick and drill end). These heavy duty machines are able to remain active for an impressive amount of time before needing to recharge.

Salvage equipment

Some Spacers make a living in the Frontier by using their spacecraft to perform search and rescue, or salvage operations. This is particularly true for Spacers who own system ships because it is far easier and more common to find ships in distress within a star system, than it is to find them deep in interstellar space. By Frontier law any ship that is salvaged and goes unclaimed becomes the property of the salvage team which can offer salvagers many more opportunities (financial, and otherwise) than most other businesses.

Salvage equipment

Most salvage vessels are equipped with tractor beams that enable them to take hold of drifting vessels and draw them to the ship where the salvagers can access the ship, however occasionally ships are too fragile for this and so most salvage teams equip their ship with grapples. Grapples are detailed below:

Grapples

Any large size ship or bigger can be equipped with one or more sets of grapples. A set of grapples uses up 2 weapon emplacement points and are a set of two thick cables each 300' long that end in a magnetic disc. The cables can be launched from a ship by the ship's gunner and requires a standard to hit roll to do so. If the roll hits the cables cause no damage but affix to the hull of the derelict.

The grapples are strong enough to hold any ship up to 1 size smaller than the grappling ship immobile. Grapples can be reeled back in at a rate of 60'/round. Ships that have successfully grappled a ship can tow them along. If the ship is up to one size smaller than the grappling ship the ship towing the ship can move but reduces its Acc/Dec to ½ normal.

A ship with multiple grapples can tow more than one vessel, but the total weight of the two vessels cannot exceed the average weight of a ship one size smaller than the towing ship. One set of grapples costs 10,000cr.

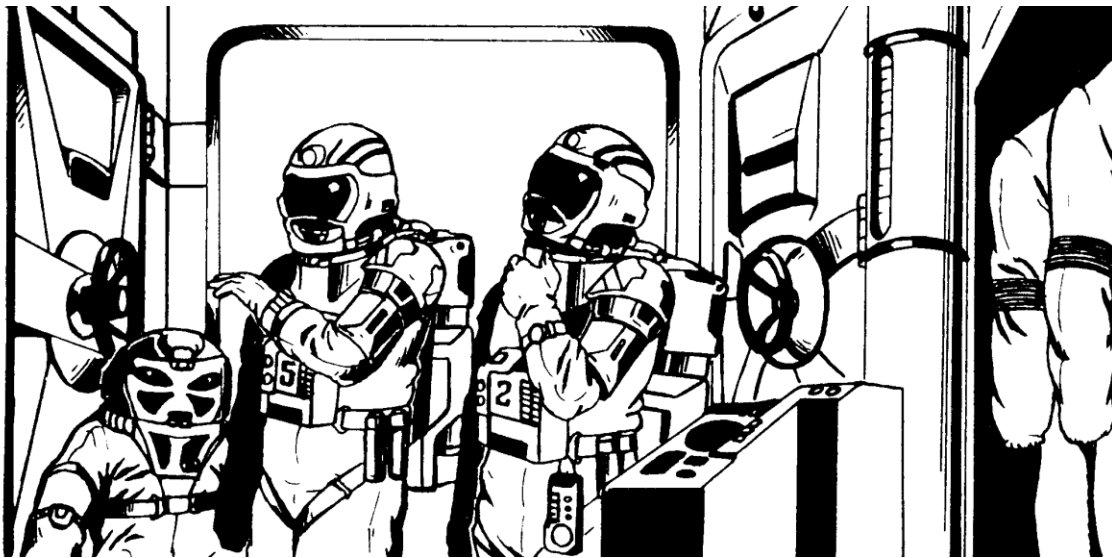
Portable life support generator

One of the most common problems faced by salvagers is coming upon a derelict whose life support system has failed. While it is possible for work crews to work in vacuum suits it is far easier for the salvage crew to set up a portable life support generator after they have patched up any hull breaches in the ship. The portable life support generator requires 4 men to carry aboard and requires 4 hours to set up. It comes with two 300' long duralloy hoses which allow the life-support generator to fill an area 300 feet long/cable by 10' wide with oxygen, and raise the temperature of the area to tolerable conditions.

The generator can function for 60 hours on its own power, however if one of the hoses is hooked to the life support of the salvage ship both ships are treated as sharing the same life support and the generator will work until the life support on the main ship fails. The life support generator costs 50,000cr. Additional lengths of life support cable are available in 50' increments for an additional 1,000cr.

Stability cage

Because most derelicts are structurally unsound a Salvage team often carries a portable framework of hyper steel which they can affix to the hull of the derelict ship to keep it from breaking apart. A stability cage displaces 1 ton of cargo space on a salvage ship per 10' square section of the ship it is to cover. It requires a team of 6 crewmembers 1 hour to affix a 10' square section of cage onto a damaged ship. Once completely encased by the protective structure the damaged ship is treated as if it had 1 hull point. A stability cage costs 2,000cr per ten foot section of cage.



Vacuum suits

Characters who wish to spend a great deal of time in space should become very familiar with vacuum suits. Vacuum suits or Vac suits as they are commonly called are suits made of duroplas weave beneath which are multiple layers of insulating material, and woven into the duroplas outer material is a mesh of metalloy. The vacuum suit has self-sealing properties but also has 4 cargo pockets and one pocket which contains 6 self-sealing patches that can be used to patch tears in the vacuum suit whose diameter does not exceed 3 inches in diameter.

The vacuum suit comes with a bowl shaped helmet with a wide duroplas visor with pull down solar shield, and a life support pack which allows the character to move about in the vacuum of space for 20 hours, before needing to be recharged off of the ship's life support (though the drain is negligible). The character wearing the helmet has a 180° field of vision. The helmet also includes a helmet cam that can record up to 4 hours of data, and a communicator which has a 5 mile range. Lastly the vacuum suit has a helmet light to help the wearer see in the darkness of the space. Putting on a vacuum suit takes 5 rounds -1 round/2 points of Agility that the character has over 10 (with a minimum of 2 rounds).

A character who suffers a tear in his vacuum suit larger than 2 inches in diameter must expend an action to apply a patch. This requires Reflex resistance roll with a DC 15 to do so. If the character fails this roll he may try again if he has one or more actions remaining. If he does not succeed in the following round he may automatically apply the patch if he reduces his Initiative modifier for the round to 1/2.

If the character cannot seal the vacuum suit for each round he must make a Fortitude save (DC12 +1/round that has passed) and if this roll is failed he falls unconscious (EP drop to 0) in the following round his EP drop to -1 and he is dying. In the following round the character dies. Another character can affix a patch to another's suit by expending an action and rolling an Agility check (DC 12)

Additional Life Support

This important optional package includes enough water, compressed food and oxygen to support a character for an additional 20 hours beyond a suit's normal capacity. Up to two packages of additional life support can be added to a suit, for a maximum time of 60 hours.

Anchors

Spacesuit anchors are self-adhesive disks attached to flexible, lightweight cables. An anchor will bond to any rock, metal, plastic, or even wooden structure that is reasonably free of grease and dust. An anchor comes with 300' of cable, but a character can carry up to 3,000' of cable if he purchases extra. An anchor is used to prevent the character from drifting off into space.

An anchor also comes with a special belt that the character wears on the outside of his suit. By pushing a button on the belt, the character can be reeled in at a comfortable 60'/turn.

Extra Patches

A packet of two of these potentially life-saving devices can be added to a suit. The packet is carried on the suit's sleeve. A character can carry up to two packets (four extra patches).

Magnetic Boots

These heavy boots allow a character to walk across a metal surface, such as the hull of a spaceship or space station, in a weightless environment. The walking rate with magnetic shoes is one-half of the character's normal rate, and characters cannot move at speeds faster than a jog (2x movement rate) when wearing them. Magnetic shoes can be used without a spacesuit for walking in the zero-gravity sections inside ships and stations, where air pressure in the compartment makes a spacesuit unnecessary.

If a character with a rocket pack is in danger of bouncing off his destination because of excessive speed, magnetic shoes will give him a +5 modifier on his Reflex save to see if he can hang on.

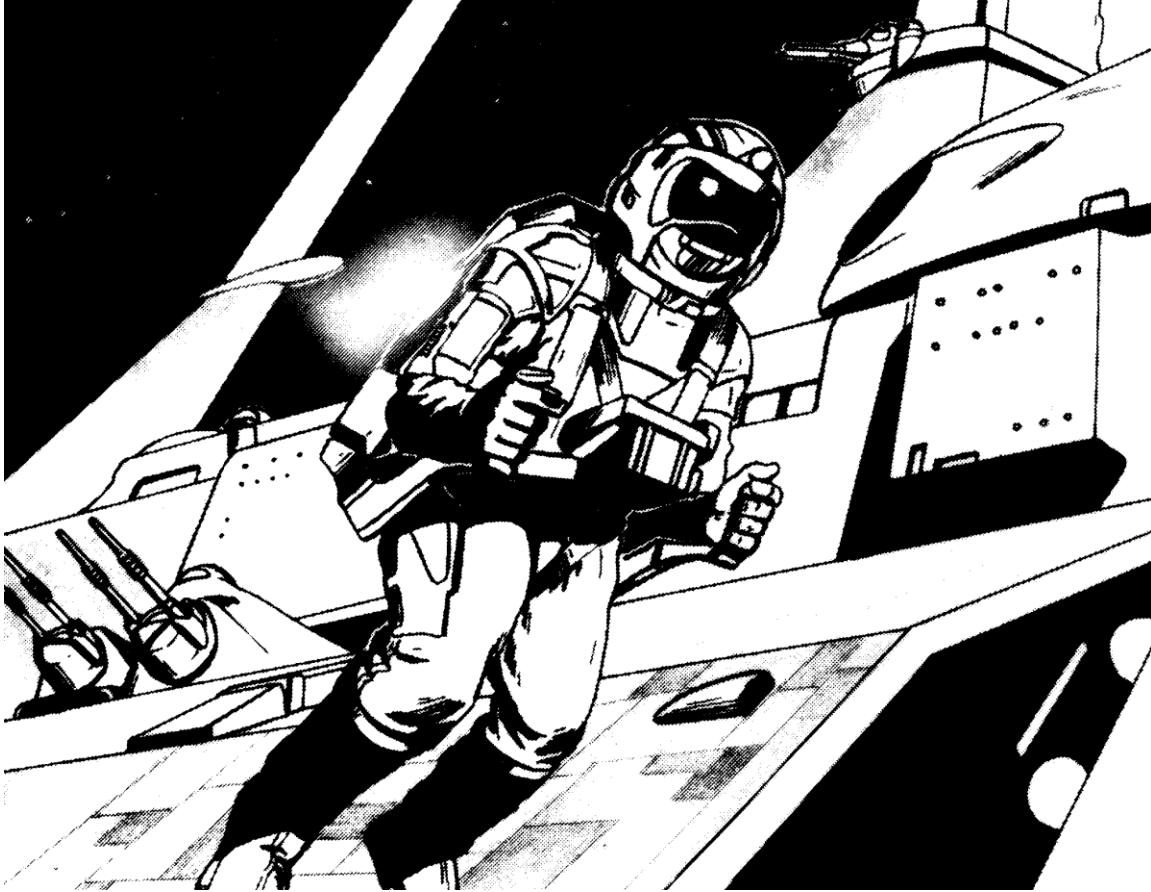
Rocket Pack

A rocket pack is a device that allows a character in a spacesuit to travel through space. A rocket pack has 20 bursts of fuel. Each burst provides enough thrust to travel 120' per turn, until something causes the character to change course or speed. Only one burst can be used per turn. A character can accelerate by firing several bursts over several turns, adding 120'/turn to his speed with each burst.

Once a character starts moving, an equal amount of power is needed to stop moving! A character could use all 20 bursts to accelerate to 2,400'/turn, but he would keep traveling at that speed in a straight line until someone or something stopped him, since there is no fuel left in the pack to decelerate with.

A character using a rocket pack to move through space toward an object must make an Agility check (DC 12) to move directly toward that object. This check should be modified by the administrator according to the distance traveled and the size of the target. A character will quickly realize if he is on the wrong heading, and should be allowed to correct his trajectory. This requires another burst of fuel, and another Agility check must be made to make a proper adjustment. These adjustments may or may not increase the character's speed, at the discretion of the character using the rocket pack. Even if the burst does not accelerate the character, it must be counted as one of the pack's bursts. A character can keep making direction adjustments as long as the rocket pack has fuel.

If the character gets himself aimed at the target and has enough fuel remaining to stop when he gets there, he can come to a gentle stop at the destination by using the appropriate number of bursts to decelerate. If a character is aimed correctly at a target but does not have enough fuel in the pack to slow down, he will take 1d4 points of damage for each 120'/turn of his speed when he hits the object. In addition, the character must make a Reflex save (DC 14 +1/120'/turn he was moving at) to stop at the object, or he will bounce off the intended target and travel at one-half of his previous speed in a direction determined by the Administrator.



Velcro Boots

These boots allow a character to walk through carpeted sections of a spaceship while weightless. Since it is standard procedure to carpet all inhabited sections of a ship, Velcro boots are a very common accessory. The walking rate with Velcro boots is one-half of the character's normal rate and as with magnetic boots moving at speeds faster than a jog (2x movement rate) are not possible.

Tools designed for usage in spacecraft

The tools included in the various toolkits found in the Star Frontiers core books are all very useful for tech-experts that find themselves working on a spaceships. However there are some additional, specialized tools that are designed specifically for use in space are listed below.

Engineers routinely carry a standard Tech-kit, but in addition to the standard items in the kit, the engineer will have three specialized tools.

Duralloy sealant: Package of compressed liquid duralloy which, when activated, expands to a 5' square sheet of airtight duralloy that is used for sealing holes in ships. Several sheets of duralloy can be used together to patch a very large hole.

Well-laser: Laser welder which can repair punctures and tears in sheet metal.

Inssuit: Insulated suit to protect engineers while working on engines that discharge radiation.

Laser power torch

The Laser Power torch (LPT) is designed to cut holes through the heavy metal hatches and hulls of enemy ships so troops can board. An LPT will cut a slash 3' long in a ship's hull in one turn; a hole 3'square could be made in four turns.

An LPT is powered by a special power backpack that holds 300 SEU. This backpack is so heavy it can be used only in a weight less environment. The torch uses 30 SEU per turn. When not cutting metal, an LPT can be used as a laser rifle that causes 5d10 of damage on a successful hit. There is no variable power setting. A character using an LPT as a weapon can use his Weapons: Beam skill however because the LPT is not designed to be a weapon, he suffers a -2 penalty to his combat roll to use it. A character with no weapon: beam skill would suffer a -6 to his chance to hit if he tried using the laser power torch as a weapon. An LPT is designed for cutting into a surface that is close to the tool, so it is not very effective as a long range weapon. The range increment for the LPT as a laser rifle is 30'.

Space equipment costs

Item	Cost
Anchor + 300' of cable	500cr
Extra cable (per 300')	200cr
Extra space suit patches (per 2)	50cr
Laser power torch	45,000cr
Magnetic shoes	120cr
Rocket pack	5,000cr
Tech-kit additions	
Well-laser	200cr
Duralloy sealant (per 2 canisters)	200cr
Insuit	7,000cr
Velcro boots	50cr



Heroic challenges in space

So far most of the rules in this book have dealt specifically with spacecraft in the Star Frontiers game. Players of Knight Hawks are not just limited to flying space craft and combatting opponents in other ships, and the rules below give information that can be used by Administrators and players to expand the options of their heroes in space. Topics covered in this section include rules pertaining to Boarding Actions, Combat in Spacesuits, Escaping from Destroyed Ships, Sabotaging Spaceships, and the Self-Destruction of Spaceships.

Boarding actions

Oftentimes there is more to be had by disabling an enemy ship rather than just blowing it up. Most star Law controlled space craft, Military spacecraft and even pilots often have specially trained crewmembers whose job is to board and capture enemy ships. These crews are also used to perform other shipboard tasks such as rescuing prisoners, stealing cargo or capturing enemy flag officers.

The first thing that has to be accomplished before a boarding action is performed is for the pilot of the attacking craft to match the enemy ship's speed and close the distance between both ships until his troops can cross the distance between the ships and start boarding procedures. If the enemy ship is drifting all the attacking ship's pilot needs to do is match speeds with the enemy ship and roll a pilot check (DC 15) to line his ship up with his opponent's ship.

If the enemy ship is still able to maneuver this requires the pilot match his opponent's speed and roll a Pilot check (DC 10+ the opponent ship's Maneuverability rating) to get into position. Each round before Initiative is rolled the pilot must make a Pilot skill check with a difficulty as above to maintain his position otherwise he must use his ship's actions in the round to try to line up with his opponent's ship. It should be noted that boarding range is about 60'.

Of course with the advent of tractor beams, and or grapples keeping an enemy ship at bay long enough for a boarding party to start working on a ship's hull, airlock or docking hatch is much easier but the pilot still must make a Piloting skill check to position his ship properly.

It is not unknown for pirates and other enemies to sometimes play possum and cut off their engines to simulate that they are drifting in the hopes of luring an enemy ship into point blank range and then opening fire on them. This tactic can have devastating effects on the approaching ship, however the rewards of capturing an enemy ship intact far out way blowing them into space dust, so boarding actions and the risks involved continue to this day.

Getting into the enemy ship

Once the attacker is in position to begin a boarding action the boarding crewmen must cross the distance between the two ships. Two characters in vacuum suits can exit an airlock per turn, or double that number if they all expend an action. Once the boarders have crossed over to the enemy ship they must decide how they are going to enter the enemy ship. There are two ways boarders can get inside the enemy spaceship, either by opening or blowing open the enemy ship's hatches or by cutting holes in the ship's hull.

Hatches on a hostile ship must be opened by force. Each hatch is 12 inches thick and has 48 Endurance points. The door can be broken open on a Strength check (DC 50) but more than likely boarders will try to blast the door open with explosives or weapons. Once the hatch is breached what remains is an opening big enough for one vacuum suit clad character to slip through. If the inner airlock hatch is closed it must be destroyed the same way. However the inner hatch is usually not as strong as the outer hatch (it is 6 inches thick and has 24 Endurance points). It can be broken on a successful Strength check with a DC of 40.

Decompression: If both of the airlock's hatches are destroyed, the deck connected to that hatch will depressurize. Anything on that deck that is not fastened down, including characters, will be swept into space with the rushing air. The effects of Decompression are as follows:

Rate of Decompression: A 1-ton (46 cubic foot) area will decompress at a rate of .1 atmosphere every 12 seconds from a hole 3' cube in area. Thus a 100 ton ship would drop from 1 atmosphere to .1 atmospheres (effective vacuum) in a period of 20 minutes from a 3' cube hole. The rate of decompression scales up or down proportionally to the size of the hole.

If a rate of decompression is enough to drop the pressure 1 full atmosphere or more in a single round an explosive decompression occurs. In addition, survivors of explosive decompression must make a Fortitude save (DC 15) to avoid getting the "Bends" (pressure sickness). A failed save will inflict 1d6 points of Endurance damage/1 full atmosphere of change.

Explosive decompression: Any life form unprotected and exposed must make a Reflex save (DC 15) to avoid holding their breath. Characters with Zero gravity movement skill add +2 to their Save due to training and experience. If the Resistance roll is failed the character held their breath, resulting in Lung damage. The character must now make a second Reflex save (same DC and modifiers) to realize their mistake fast enough to avoid too much damage. If this second save is successful the character takes 3d6 EP of damage. If the save fails, the character's Endurance immediately drops to 0 and the character is dying. A character in a decompressed area is now subject to vacuum exposure. Robots along with life forms in sealed vacuum suits are immune to the effects of explosive decompression.

Characters using Velcro or magnetic shoes, and characters who are strapped down, are safe from being blown into space, but unless they are wearing vacuum suits they will have to deal with the effects of being in a vacuum. Characters who are not strapped down must make a Reflex save (DC 16) in order to grab something solid and keep from being sucked out into space. Those who fail their Reflex save are allowed a second save at the airlock. A successful check means the character catches himself at the hatch and, although he will be a tempting target for boarding enemies, he is not swept into space. If the character fails the second check, he is carried into space and will suffer the effects of exposure to vacuum (explosive decompression) as detailed above unless he is wearing a vacuum suit. A character swept into space will drift directly away from the ship at the rate of 60' per round.

Inside the ship any secure pressure doors will hold their air as long as the hatch or door stays closed. Elevator shafts and ladders between decks have automatic seals that will prevent a leak on one deck from depressurizing other decks. Regular doors, however, are not airtight.

Opening a pressure door will take two rounds and on the third round the character can move through the door and close it behind him if he succeeds on a Reflex save (DC 14). The character can make one Reflex save/round unless he uses up additional actions, in which case he may continue to roll reflex saves/ action spent. If he succeeds he manages to get through the door before the chamber beyond depressurizes.

Entering the ship: Boarders cannot get through a hole that is depressurizing a ship. Any shots fired from outside the ship at characters inside have a -4 penalty. Characters wearing spacesuits who are anchored inside the ship can fire at targets outside the ship with no penalty. Once the deck is depressurized, the normal rules for weightless movement and combat apply. The attackers must deal with any defenders in spacesuits on the deck being attacked.

Opening holes in the enemy ship's hull

Rather than enter through an airlock, boarders can make their own entrances with explosives or laser power torches. If explosives are used, consider a ship's hull to have 50 Endurance Points, per ten foot square section. The Administrator should describe the ship's hull in detail to the boarders, so they can decide where to enter. The Administrator is the final judge of where the attackers' holes actually break into the ship. If the ship has skin sensors or outside cameras, the crew will know where the attack is coming from and can prepare to defend the ship.

Precautionary decompression

Most starships require all passengers to don vacuum suits before a fight, and then depressurize the interior of the ship. This prevents violent decompression due to battle damage or boarding attempts.

Combat in Vacuum suits

Combat in the cold vacuum of space is very dangerous not only because of the injuries sustained by weapons but because of the threat of depressurization caused by tears from weapons to a Hero's Vacuum suit. The description of Vacuum suits explains the procedure for patching a Vacuum suit. The Puncture Diameter Chart is a list of typical weapons and the diameter of the holes caused by them.

Note that sonic weapons will not work in a vacuum. Bullets can be fired in space if the firing chamber of the gun is equipped with an oxygen supply, which is standard equipment on most modern automatic rifles and pistols. Melee weapons can cause punctures of different sizes. The exact size is determined by the amount of damage they cause. Treat every 2 points of damage before any modifier is applied for Strength or Skill as a 1 inch in diameter tear in the fabric of the spacesuit. These variables reflect the fact that melee weapons can be used to slash or stab.

If a character is hit by a burst from an automatic weapon, the suit will be punctured in several places. To determine how many punctures are made, the bullets in the burst should be divided by the number of characters struck by the burst (minimum 1 bullet hole/character), with any remaining bullets ignored.

Puncture diameter chart

Weapon	Puncture size	Auto-seal	Weapon	Puncture size	Auto-seal
Electrostunner	n/a	n/a	Laser rifle	2 inch	yes
Pistol bullet	1 inch	yes	Machine gun bullet	2 inch	yes
Needler weapon	1 inch	yes	Rifle bullet	2 inch	yes
Fragmentary grenade	2 inch*	yes	Gyrojet rifle	3 inches	50%
Gyrojet	2 inch	yes	Heavy laser	3 inches	25%
Laser pistol	2 inch	yes	Laser power torch	3 inches	no

Weapon ranges in zero gravity

Because there is no atmosphere in space bullets do not slow down after being fired, nor do they change very much in trajectory, and there is nothing to diffuse a laser beam, and no gravity to pull projectiles away from their targets. In order to simulate this fact within the rules, assume that all range increments for ranged weapons is double the listed ranges, and the affective range of thrown weapons should likewise be doubled as well.

The Effects of damage on Heroes

Characters struck by weapons while wearing vacuum suits take normal damage from the weapon, and may reduce this damage if they are wearing any type of light weight defensive suit beneath the vacuum suit. This is in addition to the weapon putting a hole in the Vacuum suit.

Effects of Wounds: Heroes who have taken damage equal to or greater than one-half of their Endurance points suffer a -2 to their chance to apply an emergency patch to their vacuum suit.



Section Four: The Benefits and Hazards of Space Travel

The following section deals with rules covering various aspects of space travel, that do not involve combat. These rules cover such things as determining distances between star systems, and travel time, common hazards or unusual situations faced by ships crossing the void of space, and rules covering how a character can acquire a Spacecraft to begin with, or chartering passage on one, and the hazards involved in owning one. While most of these rules are more for information than game play some Administrators may choose to ignore some of them altogether, though when used sparingly they can increase the excitement of a trip to the stars.

How to legally acquire a spaceship in the Frontier

Characters may want to try making a personal fortune in the Frontier, which is not an impossibility, but isn't a sure thing either. Any business venture, even purchasing a Starship is not without risk, and once the characters begin to ply the space lanes they will have to deal with Space pirates, Claim jumpers and other shady types. To these threats add the continual expense of maintaining that Starship in working order and the gleam in any spacer's eye diminishes.

Despite this however millionaires are created regularly in the Frontier. Space travel is at a premium and the person with a ship at the right place and time can often make a killing. This section details ways for the characters to use ships to earn money, the dangers that they may face, and how they can get started.

Loans

Any world larger than an outpost will have banking facilities available. The Pan Galactic Bank, Streeel Savings and Loan, The Greater Vrusk Mutual Prosperity Institution, and the First Bank of Prenglar are the largest financial institutions in the Frontier, but there are as many others as there are star systems in the Frontier. All of these banks make loans and charge a standard 4% interest compounded every 40 days (this is about 23% a year).

Of course characters can't just walk into a bank, demand a loan and walk out with money. The character must provide a reasonable guarantee that the loan will be repaid. Depending on the size of the loan, and the borrower's reputation, the bank may ask for collateral equal to the value of the loan, a personal guarantee, a tracer implant, or any combination of these.

Applying for a loan with collateral

A bank will lend money to any character who can leave collateral with the bank. Any valuable item that the character owns can be put up, but before the collateral is accepted the bank will have an expert appraise it. If the item is of a value equal to the amount being asked for the loan proceeds, and the character may regain the item once the loan and interest incurred are paid for.

If a character misses a loan payment, the bank will issue a warning. If the character misses three payments in a row however the bank will send a final notice, and if payment is not received within 40 days the character loses both his collateral and all payments he has already made.

Applying for a loan without collateral

A character who tries to get a loan without collateral must meet some minimum qualifications to be eligible for the loan. The character must have a good reputation (at least 14 or 15), and must meet with a bank official and lay out in detail how the loan will be invested, and how the bank is to be repaid. After this the Administrator may call for a Personality check, or Bluff roll to see if the character is granted his loan.

Vouchers

A character who has a long standing position with a corporation can get a letter of recommendation from his employer when seeking a bank loan. In this case, the character uses his employer's reputation instead of his own when asking for a loan. The Administrator must use his discretion when players try this. Most importantly, an employer will not write a letter of recommendation unless an employee has proven his loyalty over a period of several years.

Guarantees

Before lending money, banks require some sort of guarantee that they will be repaid. Two types of guarantees are used commonly in the Frontier. Personal guarantees and tracer implants:

Personal Guarantees: Banks will settle for a personal guarantee on a lone of 10,000cr or less. This is simply a signed, sworn statement be the loan recipient that he will repay the loan according to the agreed-upon schedule, and understands the penalties for breaking the agreement. A character who defaults on a personally guaranteed loan will be placed on a wanted list. The bank will offer a reward for his capture.



Tracer Implants: Banks require that any character who receives a loan of more than 10,000cr without offering collateral must accept a tracer implant. A tracer implant is a tiny transmitter that is surgically imbedded in the character's skeletal system. The trace emits a radio signal that identifies the character and the bank that loaned him the money. The tracer signal is weak but it can be picked up by a tracer scanners from a range of several yards.

Tracer scanners are common in many populated areas of the Frontier. All bank and spaceports, and most stores, restaurants and other businesses have tracer scanners at their entrances. These items are standard issue to all Star Law officers.

As long as the character keeps making his payments, the tracer signal will register as okay on scanners. If the character however skips his payments and does not respond to warnings, the bank will notify all its branch offices and will issue warrants for the character's tracer. From this point on, any tracer scanner detects that tracer and will trip an alarm, either in the business manager's office or the local police precinct. Because banks offer large bounties for the capture of loan defaulters, police and independent agents will close in on the character immediately. No reputable hospital or medical clinic will remove an implant unless the operation is authorized by the bank.

Bounties

In order to further discourage people from not repaying their loans, banks offer rewards for the capture of loan defaulters. Generally a bounty hunter will be paid 10% of the value of the loan, only if the defaulter is returned alive. On rare occasions the property that the loan was used on will be paid to the Bounty Hunter instead of money, enabling some bounty hunters to acquire Starships if they capture a defaulter who had used his loan to purchase a ship.

Reapplication

Note that large population centers will have at least four major banks, and that having a lone turned down at one bank will have no effect on an application at another bank. The actual number of banks in any city, and any particular lending policies of those banks are left to the Administrator's discretion.



Alternate means of acquiring a spaceship in the Frontier

If players are unable or reluctant to get a bank loan for a system ship or starship, the Administrator should consider the possibilities listed below. These are ideas only, not rules. The Administrator must make his own decisions based on common sense in these situations.

Crime Organizations

Characters who are unable to secure bank loans, either because of their unsavory reputations or because they lack collateral may be able to secure a loan from one of the many criminal cartels in operation in the Frontier. In return the criminal organization may demand very high interest rates (60 to 100% interest/year is not unreasonable) and will hold the title to the ship until the loan is paid off. They may also demand that the characters perform "favors" for the organization, such as smuggling illegal cargoes, helping fugitives escape Star Law or using the character's business as a front for their criminal activities.

In some cases Criminals may allow characters to put themselves up as collateral for a loan. If the characters default on the loan, the criminals will track them down and either sell them as slaves or kill them, and sell their bodies on the black market.

In all cases, characters looking for criminal backing must make their own contacts and arrangements. The Administrator must remember that only the largest criminal organizations have the resources to make these types of deals, and criminals do not become powerful in the Frontier without being ruthless and aggressive.

Corporate Leases

A corporate lease is similar to a charter, except the corporation owns the ship. The characters agree to take a smaller percentage of the profits in return for the use of the ship. The characters usually have the option of buying the ship, applying their lease payments towards the purchase of the ship.

Government Subsidies

Some planetary governments will subsidize the purchase of a space craft if the characters have demonstrated that they can be trusted, and have pledged to use the ship in a way that benefit's the government agency. Basically, the government loans money to the characters at a low interest rate so they can purchase a ship that fits the government's specifications. The characters then must use the ship in government service until the loan is paid off.

Examples of areas where the government might be willing to subsidize a ship's purchase include, but are not limited to; Passenger or freight lines to and from off-world colonies, industrial interests, Transport of dangerous materials, high risk cargoes, privateering, or serving as a government courier service.

Hijacking

While it is extremely risky, it is not unknown for pirates to hijack a commercial or military spacecraft and divert it to their own use in some remote corner of the Frontier. Any character trying this of course should meet a lot of resistance, both from the ship's crew during the hijacking, and from both port authorities and the Star Law rangers after the hijacking.

Joint Ventures

Characters can raise cash to purchase a starship by selling stock in their business. Persons who buy stock are buying a percentage of the profit earned by that ship, and are gambling that their share of the profit will be more than the cost of their shares. Characters can sell whatever percentage of their profits that they wish, but should be sure to keep enough for themselves to assure they stay in business.

At the end of a fiscal period (usually every 200 to 400 days) the business must deliver dividends to the shareholders. Shareholders who feel they have been defrauded or ripped off will most certainly complain to local authorities.

Payment

A corporation or research group may be willing to sign over a ship's title to characters who use the ship to perform some extremely hazardous and important mission for them. Such ships are usually very old, however and players must negotiate with representatives of the corporation or research facility for the details of their contractual obligations.

Patronage

Characters may be able to find a ship owner who has no crew. If the patron is willing, the characters can agree to serve as the ship's crew using it in the patron's service. Some patrons might even consider letting the characters trade their labor for passage or even working for free, with what they would have made going towards the eventual purchase of the ship.

Salvage

According to Interstellar law, any ship that is found abandoned and adrift in open space is the property of whoever salvages it. Usually however corporations will contest the salvage law and may opt instead to pay substantially for the return of their "lost" property.

Used Ships

Corporations (and occasionally governments) sometimes sell old ships. These ships are usually sold for 40-80 percent of their new value. The disadvantage to buying a used ship is that characters must take the ship as is, and must pay a construction center or shipyard to make any necessary repairs or modifications they want. Many of these used ships have been acquired from defaulted loans, or impounded from captured criminals and pirates, and may actually be a gem in the rough, but such ships are few, and most ships are one step away from being sold as scrap metal.

Common uses for Spacecraft in the Frontier

Once a Starship or System ship has been acquired by the characters they should consider what they can do with it besides using it to get from place to place. Spacecraft must be maintained, refueled and resupplied, all which take considerable amounts of credits (far more than most characters make in their careers). Below are some of the most common uses for Spacecraft in the Frontier.

Passenger Transports

Carrying passengers from planet to planet or from one star system to another in the Frontier is a major business. A character who owns a ship that has been designed to carry passengers can often find willing passengers in any spaceport, or space station. Delays, missed flights, and other screw ups may leave dozens of potential passengers stranded and a smart character can clean up, if he can convince a few characters to cash in their travel vouchers and charter his ship.

Determining distance and travel times in the Frontier

A quick glance at the planetary list in the core rulebook will show that each planetary system has coordinates. The first number represents one of 8 sectors that form a sphere around Prenglar the Frontier capitol. The second set of numbers is distance in light years from Prenglar. So Madderly's Star has coordinates of 5-094.6 is in the 5th sector and is 94.6 light years from Prenglar, and Yast has coordinates of 7-218.5 so it is in the seventh sector and is 218.5 light years from Prenglar.

To determine the distance from Madderly's Star to Yast merely subtract the system with the lowest light years from the other, and add 10 light years per difference in sectors. So going from Madderly's Star (5-094.6) to Yast (7-218.5) would take a hyperspace jump covering 143.9 light years.

To determine the actual number of days that it will take a ship to cross that distance divide the distance by the number of light years/day that the ship's FTL drive allows for. So if an Assault scout was making the trip from Madderly's Star to Yast it would only take 20.6 days because its FTL drive allows it to cross 7ly/day.

Profits

The profitability of the space liner business is determined by subtracting business expenses (resupplying consumed food, recharging the ship's life support, refueling, etc.) from the money earned from ticket sales. On the average characters can earn 50-100 credits/light year travelled multiplied by the class of accommodations that the passengers desire, which is standard cost for most space liners. Certain passengers however are willing to pay a lot more if the ship is fast, as many people hate the thought of spending months aboard a starship.

Risks

Operating a space liner or transporting people is a fairly safe business, since pirates generally leave space liners alone. If a very important passenger is aboard however and word leaks out, things may become very interesting for the characters. Assassins, Space pirates, Rival businessmen and the like might not want the passenger to reach his destination, all which make for a good adventure.

Freight Hauling

Just as people need to be transported from place to place in the Frontier, many different goods must also be hauled from planet to planet or system to system. This job often falls on the freight haulers another area where characters can earn their fortunes.

Obtaining cargo

Most independent freighter crews find cargo by "beating the docks", or spending time visiting bars, spaceport or business offices and inquiring if there are any cargoes waiting to be moved. Often this results in some harried business owner who's cargo has been waiting for transport might choose the characters over waiting for space aboard some company ship or liner, especially if his load needed to get somewhere "yesterday".

Occasionally freighters will find cargoes that have been abandoned at warehouses or spaceports that they can buy out right and resell it where ever there is a market for it. This is not as uncommon as it sounds, the Frontier is huge and in many planets the economy fluctuates and small companies fold daily leaving their cargoes warehoused, or impounded to pay debts, and warehouse owners are happy to get rid of accumulated cargo to make room for cargo from paying customers.

Typical Cargoes

What follows is a table that can be used by the Administrator to determine what kind of cargo is available to be hauled either waiting at a warehouse or spaceport dock yard, or offered to the freight captain by a proposed patron. Some cargoes (in red) are high risk cargoes. They are either dangerous to haul, or increase the risk of the ship being attacked by Space pirates if word gets out that they are hauling such cargoes.

Available cargoes (per ton)

Industrial Center

Die Roll	Cargo	Available Tonnage	Price/Ton At Source	Price/ton At Destination
1-2	Chemicals	1-4	200,000cr	400,000cr
3-5	Computers	5-20	600,000cr	1,200,000cr
6-7	Drones	1-6	350,000cr	900,000cr
8-10	Farming equipment	4-16	200,000cr	350,000cr
11	Generators	2-8	300,000cr	800,000cr
12	Hand weapons	2-8	800,000cr	1,200,000cr
13	Lab equipment	3-12	300,000cr	750,000cr
14	Medical equipment	4-24	500,000cr	750,000cr
15	Parabatteries	5-20	250,000cr	700,000cr
16	Plastics	10-100	150,000cr	250,000cr
17	Robots	2-8	800,000cr	1,200,000cr
18	Ship Drives	2-8	500,000cr	800,000cr
19	Tools	2-12	250,000cr	400,000cr
20	Vehicle parts	2-20	200,000cr	400,000cr

Resource Center

Die Roll	Cargo	Available Tonnage	Price/Ton At Source	Price/ton At Destination
1	Aluminum	5-20	500,000cr	700,000cr
2	Copper	3-18	150,000cr	200,000cr
3	Gems	1-4	4,000,000cr	6,000,000cr
4	Gold	1-8	2,000,000cr	3,000,000cr
5	Iron	6-36	200,000cr	250,000cr
6	Magnesium	1-10	700,000cr	1,000,000cr
7	Mercury	1-6	400,000cr	750,000cr
8	Molybdenum	2-12	600,000cr	750,000cr
9	Nickel	3-12	400,000cr	550,000cr
10	Platinum	1-6	800,000cr	1,200,000cr
11	Plutonium	1-4	1,000,000cr	3,000,000cr
12	Quartz crystals	3-24	400,000cr	600,000cr
13	Federanium	1-4	800,000cr	1,500,000cr
14	Silver	3-12	800,000cr	1,200,000cr
15-16	Titanium	3-24	750,000cr	1,250,000cr
17	Tungsten	2-12	500,000cr	750,000cr
18	Uranium	1-6	1,000,000cr	2,500,000cr
19	Vanadium	2-8	800,000cr	1,000,000cr
20	Zircon	1-8	300,000cr	450,000cr

Risks

Hauling freight is more dangerous than carrying passengers, because space pirates can make a lot of profit by selling hijacked cargoes. Of course certain cargoes require permits to carry, or are illegal on certain worlds which may be a lucrative business for smugglers, but Star Law and local authorities have very harsh penalties for those caught carrying

contraband.

Mining ventures

Some characters, particularly those who possess system ships on star systems with nearby asteroid fields choose to try their hand at mining as a way to make a fortune. Most potential miners soon discover that many asteroids, and planets consist of nothing but worthless rock and low grade iron ore, but some get lucky and discover an asteroid or planet that is fairly bursting with valuable metals, gems and other resources.

Mining ships are designed to transport a crew to a mineral-rich asteroid or planet and serve as a base of operations while those resources are exploited.

Finding mining sites

Determining whether a planet has natural resources worth mining involves as much luck as science. A mining concern can find good prospects for operations in two ways: by prospecting and by following rumors.

Prospecting: Prospecting involves examining samples taken from various likely locations on an asteroid or planet, looking for evidence of valuable minerals contained in the samples. These locations being explored for their mining potential could be minor outposts, uninhabitable worlds or even part of a newly discovered system. The Administrator should feel free to decide himself that a planet has no valuable, minable resources, or that it is chock full of recoverable ores.

Rumors and "Gold Rushes": The second way to find a promising location for a mine is to follow the crowd, travelling with large groups of miners to areas that are reported to be the sites of rich strikes. Both the Cappellan Free Merchants and the Cassidine Development Corporation sell information on possible mine locations. This information will cost 1,000 to 10,000 Cr, depending on the value of the resources. CFM and CDC provide this service to promote competition with the larger corporations.

Some prospectors also earn their livings by locating mineral deposits and selling their locations to miners. Information bought from prospectors usually costs more, but reputable prospectors will not sell a mine's location more than once. Characters who do not want to buy information may be able to get what they want free. Characters who visit taverns and restaurants on resource worlds, space stations or other likely spots may, at the Administrator's discretion, hear rumors that can lead them to mineral strikes.

Mining and Processing raw materials

Once a character has found an encouraging location for a mining operation, he must arrange to dig the material up and process it. Mining equipment and the like must be purchased, and put into operation. The specific rules regarding the use of mining equipment and how much material they can process is located elsewhere in this book.

Playing Out: There is no guarantee that a mine will yield enough raw material to fill the hold of a mining ship. The chance that a mine will "play out" is up to the Administrator. This can be determined randomly by rolling 2d10. The result is the number of days (6 hour shifts) that will produce ore before the mine is exhausted. Characters can search for new deposits on an asteroid or planet if a mine plays out.

Ecological Considerations: Some of the more heavily populated resource-rich worlds in the Frontier have been mined to the point where the planet becomes an industrial wasteland. The lessons learned from these experiences have led some planetary governments to pass tough environmental protection laws. Specific laws are up to the Administrator, but they can be used to provide obstacles for an ambitious mining operation.

Transporting and selling mined ores

Once miners have filled their ship with concentrate (or collected as much as they can), the material must be transported to a resource center and sold. A buyer will be located within 1d10 days at the space station orbiting a resource center. The buyer will pay the amount in the "Source" column of the Cargo Chart in the freighter section. If characters take concentrate to an Industrial world, they have a 10% chance of finding a buyer in 10 days. These buyers also will pay the amount at Source, not Destination.

Risks

Because of the potential for fat, fast profits, mining operations are plump targets for pirates and unethical corporations. The Administrator should plan encounters that occur during a mining venture, but these encounters shouldn't outright negate the possibility of the characters succeeding in their mining efforts.



Common Space Hazards

Below are rules covering two hazards that can affect a Space craft while in transit. Asteroid fields, and Nebulae, are some of the most common hazards faced by ships traveling across the void of space that can pose a very real threat to a spaceship.

Asteroid fields

Asteroid fields are essentially areas of space littered by large amounts of rubble that can span hundreds of miles in depth. Travel through fields of Asteroids is very hazardous, and most pilots are sensible enough to fly around a field of asteroids as opposed to entering one. An Administrator can roll 5d4 (5-20) to determine how many rounds it takes for a ship to weave through an asteroid field and may either choose a density or roll 1d6 and cross reference the result on the table below to determine various aspects of the field.

Die Roll	Pilot Skill Modifier	Reflex save Difficulty	Collision Damage
01	+0	10	1d6
02	-2	15	2d6
03	-4	18	2d8
04	-6	20	3d6
05	-8	25	3d8
06	-10	30	3d10

Nebula or Gas Clouds

Nebula are clouds of primordial gas left over from when the galaxy was formed. They pose a serious hazard to space craft entering them because they not only overload a ship's sensors but they negate a ship's energy shields and somewhat defuse the ship's energy weapons. To determine how long it will take a ship to cross a nebula roll 1d10 with one equaling an hour of travel time as the ship has to travel blindly through the cloud. To determine the effects on the ship's systems roll 1d6 and cross reference on the table below.

Die Roll	Astrogation Skill Modifier	Sensor range Modifier	Energy Weapon Damage Modifier
01	-1	-25%	-1/die (minimum 1pt)
02	-2	-50%	-1/die (minimum 1pt)

Die Roll	Astrogration Skill Modifier	Sensor range Modifier	Energy Weapon Damage Modifier
03	-4	-50%	-2/die (minimum 1pt)
04	-6	-75%	-3/die (minimum 1pt)
05	-8	negated	-4/die (minimum 1pt)
06	-10	negated	negated



Section Five: Ships of the Frontier

What follows are a large number of ships commonly in use in the Frontier. The ships are divided into four categories: System ships, Starships, and Military System ships, and Military Starships, and are listed alphabetically according to size. These are by no means the only ships available in the Frontier, only the most commonly used in creating adventures.

System ships

Type	Size
Shuttle	Large
Bulk cargo transport	Large
Standard cargo transport	Gargantuan

Starships

Type	Size
CDC J-3000 Series Light Cargo Transport	Medium
CDC J-4000 Series Light Cargo Transport	Medium
Explorer Class Survey Ship	Medium
Free Trader	Medium
PGC C-1000 Ambassador class cruiser	Large
PGC Light Transport	Medium
Royal Shipyards Ambassador Class shuttle	Medium
Star Law Interceptor Class patrol cruiser	Medium
SC F-31 Patrol scout	Medium
PGC Medium Freighter	Large
CDC C-190 Salvage/Rescue Ship	Huge
New Dral Transports Medium Freighter	Huge
PGC Standard Liner	Huge
RS Ambassador Class Space Cruiser	Huge
SC A-4 Bulk Freighter	Huge

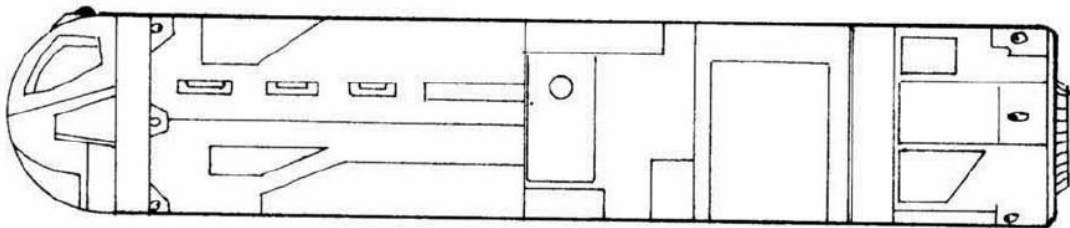
Military Ships

System ships

Type	Size
CDC I-7 Interceptor	Small
CDC Infiltrator Class Stealth Fighter	Small
Keller Arms Scimitar Class Interceptor	Small
Royal Shipyards D-7 Dagger	Small
T-27 Eagle class fighter	Small
Wartech's H-7 Heavy Assault Interceptor	Small
ZL-9 Vigilance Class Interceptor	Small
Corvette	Large
Keller Arms Assault Shuttle	Large
Sentry Class Patrol Cruiser	Large
Frigate	Gargantuan
Destroyer	Gargantuan

Starships

Type	Size
K-1000 Knight Hawk Star Fighter	Small
Knight Hawk Star Fighter	Small
Royal Shipyards D-7a Dagger	Small
RS Stiletto Class Star fighter	Small
Vrusk Industries War-Wing Star fighter	Small
Wartech's T-95 Star fighter	Small
Assault Scout	Large
Military Corvette	Large
Frigate	Gargantuan
Destroyer	Gargantuan
Minelayer	Gargantuan
Assault Transport	Gargantuan
Light cruiser	Colossal
Wartech's A-28 Medical Frigate	Colossal
Heavy Cruiser	Colossal II
Assault carrier	Colossal II
Battleship	Colossal III
Dreadnaught	Colossal IV



System Ships

Shuttle

Size: Large

Cost: 106,000cr

Combat modifier: +0

HP: 20

Armor: 10

DR: 14

Defenses: Defensive shield (Class B)

Points/round: 5 **Maximum points/absorbed:** 20

Engine type: Chemical (type A)

Maneuverability: +4

Stealth: 14

Atmospheric: Escape velocity

Acc/Dec: 1

Cruise: 1

FTL drive type: none

Ly/day: n/a

Life support capacity: 60

Sensor suite: Type A

Range: 10au

Power plant type: B

Surplus seu/day: 100

Storage capacity: 500

Cargo: 50 tons

Consumables: 1 day

Crew Complement: 1 pilot, 1 navigator, 1 communications officer, 1 sensory officer, 2 engineers

Notes: Shuttle service is so common throughout the Frontier that it is taken for granted, by most people. Shuttle services exist on any world larger than a colony and not only includes transporting passengers, but shuttles can easily be converted to carry up to 100 tons of cargo, by removing the passenger compartment and adding a cargo crane apparatus and space doors to the design.

Commercial Shuttles come in a variety of configurations from luxury shuttles that accommodate 20 passengers in opulent surroundings, to 50 passenger transport shuttles with passenger compartments that resemble twentieth century airliners. A shuttle comes with a standard communications array, emergency beacon/receiver and have 1 escape pod/6 passengers.

Bulk Cargo Transport

Size: Large

Cost: 240,000

Combat modifier: +2

HP: 30

Armor: 10

DR: 16

Defenses: none

Defensive shields: Defensive Shield (Class E) **Points/round:** 20 **Maximum points/absorbed:** 80

Weapon: Light plaser cannon

Fire Arc: Swivel mounted (top)

Range: 8 **Damage:** 5d8

Weapon: Electron battery (2)

Fire Arc: Swivel mounted (bottom rear)

Range: 5 **Damage:** 3d6

Engine type: Chemical (type A)

Maneuverability: +6

Stealth: 14

Atmospheric: Escape velocity

Acc/Dec: 1

Cruise: 1

FTL drive type: none

Ly/day: n/a

Life support capacity: 64

Sensor suite: Type A

Range: 10au

Power plant type: B

Surplus seu/day: 100

Storage capacity: 500

Cargo: 200 tons

Consumables: 3 weeks

Crew Complement: 1 pilot, 1 navigator, 1 communications officer, 1 sensory officer, 2 technicians, 1 engineer

Notes: Corporations, trade guilds, and independent merchants throughout the Frontier use these mid-sized cargo haulers to move cargo within a star system. They're ugly, and slow, but they're very reliable and efficient and perform their intended task admirably. Bulk cargo transports are bulky ships, but their use of Chemical fuel makes them cost effective, and allows them to land on planet.

These system ships have a standard communications array, and have an emergency receiver and beacon. They have two tractor beam units which can allow them to move up to ten tons of cargo, and have two retractable cargo cranes with a retractable top opening cargo hatch. Each Cargo transport carries 2 work pods in external docking pods and have 4 escape pods set in a bay near the crew quarters and the main airlock. They come with 4 heavy duty labor robots and two standard labor robots to help load and unload cargo.

Standard Cargo Carrier

Size: Gargantuan

Cost: 910,000cr

Combat modifier: +2

HP: 70

Armor: 10

DR: 11

Defenses: none

Defensive shields: Defensive Shield (Class C) **points/round:** 10 **Maximum points/absorbed:** 40

Weapon: Standard laser cannon

Fire Arc: Swivel mounted (top)

Range: 10 **Damage:** 6d8

Weapon: Electron batteries (2)

Fire Arc: Rear mounted (bottom)

Range: 5 **Damage:** 3d6

Engine type: Chemical (type A)

Maneuverability: +1

Stealth: 11

Atmospheric: Escape velocity

Acc/Dec: 1

Cruise: 1

FTL drive type: none

Ly/day: n/a

Life support capacity: 100

Sensor suite: Type A

Range: 10au

Power plant type: B

Surplus seu/day: 100

Storage capacity: 500

Cargo: 5,000 tons

Consumables: 1 month

Crew Complement: 1 pilot, 1 navigator, 1 communications officer, 1 sensory officer, 2 engineers

Notes: These are the oldest commercial ships in the Frontier, and have almost completely been replaced by smaller faster freighters that can travel between the stars. Freighters of this type are almost never seen in the core or outer systems, but some still exist in the Rim, and it is not unusual to trace the ownership of the ship several hundred years. These ships are often the target of space pirates and the like because they have relatively poor offensive and defensive capabilities, though because of this they tend not to carry high ticket cargo.

A cargo hauler has 2 escape pods near the crew quarters of the ship, and have 6 work pods housed in external docking ports. They have a retractable top mounted cargo bay door with two cargo cranes allowing them to move cargo around, and have a tractor beam unit mounted near the front of this bay that can haul up to 100 tons of cargo (or a large ship). These ships have 6 vid-cams on their hull and have a standard communication array, including a subspace radio. Most of these ships have emergency beacons, and receivers.

Starships

Cassidine Development Corporation J-3000 Series Light Cargo Transport

Size: Medium

Cost: 1,250,000cr

Combat modifier: +4

HP: 20

Armor: 13

DR: 24

Defenses: Composite Duralloy plating with reflective agents (-2pts/die from lasers, -1pt/die from plasers), Damage suppression systems (-1pt/die from damage)

Defensive shields: Defensive shield (Type C) **Points/round:** 10 **Maximum points/absorbed:** 40

Weapon: Light plaser cannon (2)

Fire Arc: Swivel mounted (top/bottom)

Range: 8 **Damage:** 4d10

Engine type: Ion/gravity flux (type F)

Maneuverability: +8

Stealth: 16

Atmospheric: Escape velocity

Acc/Dec: 3

Cruise: 6

FTL drive type: Tachyon (type E)

Ly/day: 3ly/day

Life support capacity: 16

Sensor suite: Type B

Range: 20au

Power plant type: B

Surplus seu/day: 100

Storage capacity: 500

Cargo: 100 tons

Consumables: 2 months

Crew Complement: 1 pilot, 1 navigator, 1 communications officer, 1 engineer

Notes: Perhaps the most adaptable light cargo transport in the Frontier, Cassidine Development Corporation produced this design. Built on a modular design to suit the needs of a wide variety of clients, many who aren't human, let alone bipedal, the J-3000 Series Light Cargo Transport is an excellent all-purpose cargo transport, with powerful engines and a sturdy hull using composite Duralloy plating with reflective agents (-2pts/die from lasers, -1pt/die from plasers) The ship boasts damage suppression systems (-1pt/die from damage)

Internally the J-3000 Series Light Cargo Transport has two escape pods one near the main hatch of the ship and the other between the engineering section and crew quarters of the ship. These ships have auto drive capabilities and have a guidance computer making them very popular among novice and seasons pilots alike. They have a standard communications package, and each ship has an emergency beacon/receiver package.

Cassidine Development Corporation J-4000 Series Light Cargo Transport

Size: Medium

Cost: 1,250,000cr

Combat modifier: +4

HP: 20

Armor: 13

DR: 26

Defenses: Composite duralloy plating with reflective agents (-2pts/die from lasers, -1pt/die from plasers), Damage suppression systems (-1pt/die from damage)

Defensive shields: Defensive shield (Type C) **Points/round:** 10 **Maximum points/absorbed:** 40

Weapon: Light plaser cannon

Fire Arc: Swivel mounted (top)

Range: 8 **Damage:** 4d10

Engine type: Ion/gravity flux (type F)

Maneuverability: +10

Stealth: 16

Atmospheric: Escape velocity

Acc/Dec: 3

Cruise: 6

FTL drive type: Tachyon (type E)

Ly/day: 3ly/day

Life support capacity: 16

Sensor suite: Type B

Range: 20au

Power plant type: B

Surplus seu/day: 100

Storage capacity: 500

Cargo: 150 tons

Consumables: 2 months

Crew Complement: 1 pilot, 1 navigator, 1 communications officer, 1 engineer

Notes: Capitalizing on its J-3000 series Light Cargo Transport, Cassidine Development Corporation reconfigured its design, adding more maneuverability and speed and increasing its cargo capacity without sacrificing too much over the original design. Like its predecessor the J-4000 Light Cargo Transport is based on a modular design to suit the needs of a wide variety of clients, many who aren't human, let alone bipedal, the J-4000 Series Light Cargo Transport is an excellent all-purpose cargo transport, with powerful engines and a sturdy hull using composite Duralloy plating with reflective agents (-2pts/die from lasers, -1pt/die from plasars). The ship boasts damage suppression systems (-1pt/die from damage)

Internally the J-4000 Series Light Cargo Transport has two escape pods one near the main hatch of the ship and the other between the engineering section and crew quarters of the ship. These ships have auto drive capabilities and have a guidance computer making them very popular among novice and seasons pilots alike. They have a standard communications package, and each ship has an emergency beacon/receiver package.

Explorer Class Survey Ship

Size: Medium

Cost: 3,000,000cr

Combat modifier: +2

HP: 20

Armor: 10

DR: 18

Defenses: none

Defensive shields: Defensive shield (Class E) **Points/round:** 20 **Maximum points/absorbed:** 80

Weapon: Light plaser cannon

Fire Arc: Swivel mounted (top)

Range: 8 **Damage:** 5d8

Engine type: Ion/gravity flux (type F)

Maneuverability: +8

Stealth: 20 (-4 to hit ship)

Atmospheric: Escape velocity

Acc/Dec: 3

Cruise: 6

FTL drive type: Tachyon (type E)

Ly/day: 3ly/day

Life support capacity: 64

Sensor suite: Type C

Range: 40au

Power plant type: B

Surplus seu/day: 100

Storage capacity: 500

Cargo: 25 tons

Consumables: 6 months

Crew Complement: 1 pilot, 1 navigator, 1 communications officer, 1 sensory officer, 2 technicians, 1 engineer

Notes: Explorer-class vessels are small, long-range starships used for a wide variety of non-military roles. Explorers are prized by those who travel the outer systems and Rim and by any Spacers who value dependability and versatility. Explorers are light Star craft, and are capable of extended missions in remote areas, far from any space stations and spaceports. Explorers are also designed for atmospheric flight, so they can land on a planet's surface. Smugglers, mercenaries, adventurers, and others who sometimes live on the edge of the law have been known to prefer these spacecraft and make extensive modifications to them.

These survey ships have a full communications array including signal encryption and have both an emergency receiver and beacon. They have skin sensors, and have 6 video cameras to protect their hulls from unwanted intruders. Each survey ship has 4 escape pods 2 near the cockpit and two near the engineering bay. They have 4 work pods in external docking pods near the engineering deck as well. These ships are equipped with a complement of 20 atmoprobes. What makes these ships so attractive is the fact that they are legally equipped with light sensor baffling systems allowing them to avoid detection when surveying worlds where their presence may violate Frontier law against affecting the course of a civilization's growth.

Free Trader

Size: Medium

Cost: 3,000,000cr

Combat modifier: +4

HP: 20

Armor: 13

DR: 24

Defenses: Duralloy reinforced hulls with a reflective coating (-2 points from lasers and -1 from plasars), Damage suppression systems (-1pt/die damage)

Defensive shields: Defensive shield (Class E) **Points/round:** 20 **Maximum points/absorbed:** 80

Weapon: Light plaser cannon (2) **Fire Arc:** Swivel mounted (top/bottom) **Range:** 8 **Damage:** 5d8
Weapon: Plaser projectors (2) **Fire Arc:** Forward firing **Range:** 5 **Damage:** 2d10

Weapon: Retractable Assault rocket launcher **Fire Arc:** Forward firing (bottom)
Missile type: Assault Rocket (5) **Range:** 5 **Damage:** 3d8

Engine type: Ion/gravity flux (type F) **Maneuverability:** +8 **Stealth:** 20 (-4 to hit ship)
Atmospheric: Escape velocity **Acc/Dec:** 3 **Cruise:** 6
FTL drive type: Tachyon (type E) **Ly/day:** 3ly/day

Life support capacity: 64 **Sensor suite:** Type C **Range:** 40au
Power plant type: B **Surplus seu/day:** 100 **Storage capacity:** 500
Cargo: 50 tons **Consumables:** 6 months

Crew Complement: 1 pilot, 1 navigator, 1 communications officer, 1 sensory officer, 2 technicians, 1 engineer

Notes: These ships were designed by the Free Trade Coalition and are very close to what Star Law classifies as a military class ship. They have Duralloy reinforced hulls with a reflective coating (-2 points from lasers and -1 from plasers) and each ship has damage suppression systems (-1pt/die damage). They are fitted with light sensor baffling technology, and have good defensive shields. The forward firing weapons are all linked to the pilot and co-pilot stations allowing them to be fired from either of these stations.

These Starships have an impressive communications array including communication encryption, and shielding. The Free Trader does not have cargo cranes and depends on a heavy duty labor robot and 2 standard labor robots to move cargo into and out of the ship. Each Free trader carries 2 work pods in external docking pods and has 4 escape pods, two that are set between the cockpit and crew quarters and the remaining two are located in the engineering section and are set in the floor of the section.

Pan Galactic Corporation's C-1000 Ambassador Class Cruiser

Size: Large **Cost:** 2,050,000cr

Combat modifier: +2 **HP:** 30
Armor: 13 **DR:** 22
Defenses: Imbedded damage suppression equipment (-1pt/die of damage), Reflective hull (-2pts/die from lasers/-1pt/die from plasers)

Defensive shield: Defensive shield (Class E) **Points/round:** 20 **Maximum points/absorbed:** 80

Weapon: Light plaser cannon **Fire Arc:** Swivel mounted (top) **Range:** 8 **Damage:** 5d8
Weapon: Electron battery (2) **Fire Arc:** Swivel mounted (bottom rear) **Range:** 5 **Damage:** 3d6

Engine type: Ion/gravity flux (type F) **Maneuverability:** +6 **Stealth:** 14
Atmospheric: Escape velocity **Acc/Dec:** 3 **Cruise:** 6
FTL drive: Tachyon (type G) **Ly/day:** 4ly/day

Life support capacity: 50 **Sensor suite:** Type C **Range:** 40au
Power plant type: B **Surplus seu/day:** 100 **Storage capacity:** 500
Cargo: 50 tons **Consumables:** 6 months

Crew Complement: 1 pilot, 1 navigator, 1 sensory/communications officer, 1 engineer

Notes: The Ambassador class cruiser was designed to transport small but important groups, such as diplomatic parties or wealthy business owners in relative safety. These ships provide luxury for its passengers. These ships have turned out however to be popular with less reputable groups such as pirates, smugglers, and mercenaries who convert luxury space to either cargo bays, or use the space to accommodate more weapon systems that they add to the ship's basic

design. The reason for their popularity is that they have two external fighter mounts attached to its underside allowing it to carry two small sized ships.

These ships have composite Duralloy hulls providing the ship some armor, and they have imbedded damage suppression equipment (-1pt/die of damage) in the hull. The ship's hull is reflective (-2pts/die from lasers/-1pt/die from plasers) and each ship has an emergency generator allowing it to continue operating for 20 hours if its main power plant is damaged. The ship has 6 cameras on its hull and have skin sensors to detect intrusions on its hull. The Ambassador class cruiser has a standard communications package, and has an emergency beacon, and receiver. These ships have 5 escape pods in a bay near the passenger's staterooms.

Pan Galactic Corporation Light Transport

Size: Medium

Cost: 1,120,000cr

Combat modifier: +4

HP: 20

Armor: 10

DR: 18

Defenses: Damage suppression equipment (-1pt/die of damage).

Defensive shield: Defensive shield (Type E) **Points/round:** 20 **Maximum points/absorbed:** 80

Weapon: Light laser cannon

Fire Arc: Swivel mounted (top)

Range: 8 **Damage:** 4d8

Engine type: Ion/gravity flux (type F) **Maneuverability:** +8

Stealth: 16

Atmospheric: Escape velocity

Acc/Dec: 3

Cruise: 6

FTL drive type: Tachyon (type E)

Ly/day: 3ly/day

Life support capacity: 20

Sensor suite: Type B

Range: 20au

Power plant type: B

Surplus seu/day: 100

Storage capacity: 500

Cargo: 20 tons

Consumables: 2 months

Crew Complement: 1 pilot, 1 navigator, 1 engineer 1 sensory/communications officer

Notes: Pan Galactic Corporation's Light Transport was designed to allow a small group to travel over long distances. Every effort was made to keep costs down so that the ship could be affordable so many corners were cut in its development, making it unpopular among the wealthy, yet very practical for small or mid-sized corporations to charter to small business interests.

The Starship has a standard hull, but has damage suppression equipment (-1pt/die of damage). The Light Transport has a standard communications package, and has an emergency beacon, and receiver. The crew quarters and passenger staterooms are cramped and amenities are nearly non-existent. These ships have two escape pods set into the floor between the bridge and crew quarters. The ship's deck plates are removable allowing easy access to the ship's systems to allow access to damaged systems.

Royal Shipyards' Ambassador Class Shuttle

Size: Medium

Cost: 2,400,000cr

Combat modifier: +4

HP: 40

Armor: 13

DR: 24

Defenses: Damage suppression equipment (-1 point/die of damage), Reflective hull (-2pts/die from lasers/-1pt/die from plasers)

Defensive shield: Defensive shield (Type E) **Points/round:** 20 **Maximum points/absorbed:** 80

Weapon: Twin plaser projectors (2)

Fire Arc: Forward firing (fire linked)

Range: 5 **Damage:** 3d12

Engine type: Ion/gravity flux (type F) **Maneuverability:** +8

Stealth: 16

Atmospheric: Escape velocity

Acc/Dec: 3

Cruise: 6

FTL drive: Tachyon (type F)

Ly/day: 4ly/day

Life support capacity: 30

Sensor suite: Type C

Range: 40au

Power plant type: B

Surplus seu/day: 100

Storage capacity: 500

Cargo: 80 tons

Consumables: 2 months

Crew Complement: 1 pilot, 1 navigator, 1 communications officer, 1 sensory officer, 1 gunnery officer, 1 engineer

Notes: The Ambassador class shuttle was built by the Royal shipyards of White Light and has become one of the most popular ships ever designed by the Royal Shipwrights. The Ambassador class shuttle was originally designed as a courier, enabling Ambassador's aides to travel between Prenglar, and White Light without depending on standard transportation, these ships were designed with reinforced frames and using composite Duralloy hulls with both Damage suppression equipment (-1 point/die of damage) and reflective components (-2pts/die from lasers/-1pt/die from plasers). The Ambassador shuttle has 6 cameras, and skin sensors to detect intruders on the ship's hull.

These ships have full communications equipment with Communication encryption, and shielding technology. They have an Emergency beacon and receiver unit and have been designed to allow both the pilot to fire the vessel's weapon systems, or they can be fired from the gunnery station. The shuttle's passenger section is well appointed with a holo-suite allowing its passengers entertainment on long trips. The staterooms, are small, but are well appointed as well.

Each Ambassador Class shuttle has an escape pod behind the ship's cockpit, and two in the passenger compartment. One last escape pod is located in the engineering section of the ship. Lastly these ships usually come with a valet robot, and two protocol robots, and many have two Astro-tech robots as well.

Star Law Interceptor class Patrol cruiser

Size: Medium

Cost: n/a

Combat modifier: +6

HP: 30

Armor: 13

DR: 26

Defenses: Composite Duralloy hull with reflective coating (-2 points from lasers and -1 from plasers), Damage suppression systems (-1pt/die damage).

Defensive shield: Defensive shield (Class E) **Points/round:** 20 **Maximum points/absorbed:** 80

Weapon: Light plaser cannon (2)

Fire Arc: Swivel mounted (top/bottom)

Range: 8 **Damage:** 5d8

Weapon: Twin plaser projectors (2)

Fire Arc: Forward firing (wing mounted)

Range: 5 **Damage:** 3d10

Engine type: Ion/gravity flux (type F)

Maneuverability: +10

Stealth: 20 (-4 to hit ship)

Atmospheric: Escape velocity

Acc/Dec: 3

Cruise: 6

FTL drive type: Tachyon (type G)

Ly/day: 5ly/day

Life support capacity: 16

Sensor suite: Type C

Range: 40au

Power plant type: B

Surplus seu/day: 100

Storage capacity: 500

Cargo: 500kg

Consumables: 1 month

Crew Complement: 1 pilot, 1 navigator, 1 communications officer, 1 sensory officer, 2 gunnery officers, 1 engineer

Notes: The Interceptor class patrol cruiser was designed for Star Law to grant them a patrol craft that was smaller than an assault scout, and yet had many of the same features. The Interceptor has a composite Duralloy hull with a reflective coating (-2 points from lasers and -1 from plasers) and each ship has damage suppression systems (-1pt/die damage). Sensor baffling systems make them a hard target to spot by ship sensors, and their maneuverability is impressive for a ship of that size.

The ship has an emergency beacon/receiver, and has 2 escape pods. These ships have 5 tachyon beacon launchers. Each Interceptor has a full communication array with communication jamming, encryption, and shielding, and has a white noise generator. They have skin sensors and have 6 cameras to protect their hulls from intruders.

Streel Corporations F-31 Patrol Scout

Size: Medium

Cost: 1,250,000cr

Combat modifier: +4

HP: 30

Armor: 11

DR: 20

Defenses: Reinforced hull with reflective paint (-2pts/die from lasers, -1pt/die from plasers), Damage suppression systems (-1pt/die from damage)

Defensive shield: Defensive shield (Type C) **Points/round:** 10 **Maximum points/absorbed:** 40

Weapon: Light plaser cannon (2) **Fire Arc:** Swivel mounted (fire-linked sides) **Range:** 8 **Damage:** 4d12

Engine type: Ion/gravity flux (type F) **Maneuverability:** +8 **Stealth:** 20 (-4 to hit ship)

Atmospheric: Escape velocity **Acc/Dec:** 3 **Cruise:** 6

FTL drive type: Tachyon (type E) **Ly/day:** 31y/day

Life support capacity: 16

Sensor suite: Type B

Range: 20au

Power plant type: B

Surplus seu/day: 100

Storage capacity: 500

Cargo: 70 tons

Consumables: 1 month

Crew Complement: 1 pilot, 1 navigator, 1 communications officer, 1 engineer

Notes: Streel Corporations F-31 Patrol scout was originally designed as a patrol ship and incorporated many unusual features, chief among them their “engines down” landing rig, creating a ship that actually flies standing up. The ship’s limited internal space does not make it popular with most Spacers and it never caught on with law enforcement, which is a shame because Streel Corporations F-31 Patrol Scout has many features that Spacers desire in a starship. Its hull is reinforced with Duraplas and reflective paint (-2pts/die from lasers, -1pt/die from plasers) and the ship has damage suppression systems (-1pt/die from damage), but more importantly it has sensor baffling units imbedded in its hull and has 6 vid-cams, and skin sensors to detect intruders on the ship’s hull.

Internally the F-31 Patrol scout has one escape pod set between the engineering section and crew quarters of the ship. These ships have auto drive capabilities and have a guidance computer. They have an emergency beacon/receiver package, and the ship’s communications package includes communications shielding and encryption packages.

Pan Galactic Corporation’s Medium Freighter

Size: Large

Cost: 1,200,000cr

Combat modifier: +2

HP: 30

Armor: 10

DR: 16

Defenses: Damage suppression equipment (-1pt/die of damage)

Defensive shield: Defensive shield (Class E) **Points/round:** 20 **Maximum points/absorbed:** 80

Weapon: Light plaser cannon **Fire Arc:** Swivel mounted (top) **Range:** 8 **Damage:** 5d8

Engine type: Ion/gravity flux (type F) **Maneuverability:** +6 **Stealth:** 14

Atmospheric: Escape velocity **Acc/Dec:** 3 **Cruise:** 6

FTL drive type: Tachyon (type D) **Ly/day:** 21y/day

Life support capacity: 10

Sensor suite: Type A

Range: 10au

Power plant type: B

Surplus seu/day: 100

Storage capacity: 500

Cargo: 120 tons

Consumables: 2 months

Crew Complement: 1 pilot, 1 navigator, 1 sensory/communications officer, 1 engineer

Notes: Pan Galactic Corporation’s Medium Freighter design has been popular in the Frontier for the past hundred or so years. The ship is relatively inexpensive, without sacrificing being made to its capabilities. These ships are easily

adaptable, even though their weapon systems do not compare to most freighters on the market. These ships are popular with independent merchants throughout the Frontier.

The ship has a standard hull, but has damage suppression equipment (-1pt/die of damage). The Medium Freighter has a standard communications package, and has an emergency beacon, and receiver. The crew quarters and passenger staterooms are cramped to make more room for cargo, though in addition to the crew, this ship can carry up to 4 passengers. These ships have two escape pods set into the floor between the bridge and crew quarters. The ship's deck plates are removable allowing easy access to the ship's systems to allow access to damaged systems.

Cassidine Development Corporations C-190 Salvage/Rescue Ship

Size: Huge

Cost: 6,850,000cr

Combat modifier: +4

HP: 70

Armor: 15

DR: 24

Defenses: Damage suppression systems (-1pt/die of damage)

Defensive shield: Defensive shield (Class E) **Points/round:** 20 **Maximum points/absorbed:** 80

Weapon: Standard laser cannon (2) **Fire Arc:** Swivel mounted (top) **Range:** 10 **Damage:** 6d8

Weapon: Rocket batteries (4) **Fire Arc:** Forward firing (2)/Swivel mounted (2 bottom rear)
Missile type: Standard rockets (20 salvoes) **Range:** 3 **Damage:** 1d10

Engine type: Ion/gravity flux (type F) **Maneuverability:** +4 **Stealth:** 12
Atmospheric: Escape velocity **Acc/Dec:** 3 **Cruise:** 6
FTL drive type: Tachyon (type E) **Ly/day:** 3ly/day

Life support capacity: 100 **Sensor suite:** Type C **Range:** 40au
Power plant type: B **Surplus seu/day:** 100 **Storage capacity:** 500
Cargo: 5,000 tons **Consumables:** 3 months

Crew Complement: 1 captain, 1 pilot, 1 navigator, 1 sensory/communications officer, 1 engineer, 2 technicians, 4 gunnery officers, 1 medic

Notes: Cassidine Development Corporation built these huge ships for deep space salvage and rescue operations, seeing the demand by corporations and private civilians for a ship capable of clearing the space ways of debris, and often the retrieval of corporate property. These ships have medium grade composite armored hulls over a heavily reinforced superstructure. They have damage suppression systems running through their hulls (-1pt/die of damage). These ships have good defensive shielding as well, and have two extendible airlocks (range of 30').

The Salvage/rescue ship has 12 workpods in external docking blisters and carries two 10 passenger launches also in external docking blisters. The C-190 Salvage rescue ship has 4 tractor beams each able to haul a Medium sized ship, or 20 tons, and two can be linked to allow the ship to haul a large ship or up to 40 tons to it. These ships have two docking bays, one on either size that can carry any ship up to medium size that does not weigh more than 5,000 tons. The second bay has 20 tons of spare ship parts allowing the ship to repair damaged vessels as if they were in a construction yard.

Internally these ships have cramped crew quarters and have large multi-tiered quarters allowing them to transport up to 50 passengers. The ship has a medical bay with two Medical Robots allowing the ship to offer medical care to rescued beings. These spacecraft are outfitted with a standard communication array, but have an emergency beacon/receiver unit. The ship has 10 escape pods in a forward bay in the passengers section of the ship. As the Frontier gears for war these ships are becoming more popular with groups of individuals hoping to profit from the war.

New Dral Transports Medium Freighter

Size: Huge

Cost: 3,500,000cr

Combat modifier: +4 **HP:** 70
Armor: 14 **DR:** 22
Defenses: Light armor, Damage suppression equipment (-1pt/die of damage)

Defensive shields: Defensive shield (Class E) **Points/round:** 20 **Maximum points/absorbed:** 80

Weapon: Standard laser cannon (2) **Fire Arc:** Swivel mounted (top) **Range:** 10 **Damage:** 6d8
Weapon: Electron batteries (2) **Fire Arc:** Rear mounted (bottom) **Range:** 5 **Damage:** 3d6

Engine type: Ion/gravity flux (type F) **Maneuverability:** +4 **Stealth:** 12
Atmospheric: Escape velocity **Acc/Dec:** 3 **Cruise:** 6
FTL drive type: Tachyon (type B) **Ly/day:** 1ly/day

Life support capacity: 50 **Sensor suite:** Type A **Range:** 10au
Power plant type: B **Surplus seu/day:** 100 **Storage capacity:** 500
Cargo: 19,000 tons **Consumables:** 6 months

Crew Complement: 1 pilot, 1 navigator, 1 sensory/communications officer, 1 engineer, 4 gunnery officers

Notes: Perhaps the most common transport found throughout the Rim Coalition, the Dralalite designed Medium Freighter is a cigar shaped craft with light armor plates creating an armored shell over the top portion of the ship, with Damage suppression equipment throughout the ship (-1pt/die of damage). The ship has fairly good defensive and offensive capabilities, but what makes these ships popular is the vast cargo space they have within. These ships have cramped crew and passenger compartments, enabling them to carry up to 40 passengers in cramped conditions as well as cargo.

New Dral's freighters sport a standard communications package, with an emergency beacon, and receiver. These ships have 8 escape pods in an escape pod bay beneath the bridge that fire forward. The ship's deck plates are removable allowing easy access to the ships systems to allow access to damaged systems. These ships have a downward sliding loading ramp on the bottom of the ship to allow cargo to be moved and have two internal tractor beams that can move up to 20 tons. In addition each of these ships has a robot labor pool consisting of 6 heavy duty labor robots, 12 standard labor robots, and two astro-mech robots.

Pan Galactic Corporation's Standard Liner

Size: Huge **Cost:** 26,500,000cr

Combat modifier: +0 **HP:** 70
Armor: 15 **DR:** 24
Defenses: Medium armor, Damage suppression systems (-1pt/die of damage), Reflective hull (-2pts/die from lasers/-1pt/die from plasmas).

Defensive shields: Defensive shield (Class: G) **Points/round:** 30 **Maximum points/absorbed:** 120

Engine type: Ion/gravity flux (type F) **Maneuverability:** +4 **Stealth:** +0
Atmospheric: Escape velocity **Acc/Dec:** 3 **Cruise:** 6
FTL drive type: Tachyon (type D) **Ly/day:** 2ly/day

Life support capacity: 400 **Sensor suite:** Type B **Range:** 20au
Power plant type: B **Surplus seu/day:** 100 **Storage capacity:** 500
Cargo: 900 tons **Consumables:** 3 years

Crew Complement: 1 captain, 1 pilot, 1 navigator, 1 communications officer, 1 sensory officer, 1 medic, 2 technicians, 1 engineer (20 support personnel)

Notes: The Standard Liner is designed to carry large groups safely across Frontier space. These liners are very popular because they are built with heavily reinforced frames, and have medium grade composite armored hulls with damage suppression systems imbedded in them (-1pt/die of damage) and have reflective hulls (-2pts/die from lasers/-1pt/die from plasmas). These ships do not carry weapon systems and do not usually travel outside the core of the Frontier.

The Standard liner can carry up to 200 passengers in comfort, and have 10 ambassador class luxury suites, and 10 first class accommodations. The support staff attends to these two areas, while valet robots and the like deal with other travelers. These ships spend a great deal on entertainment to help ease the long travel between star systems, and many have been fitted with cryogenic units allowing them to carry up to 100 more passengers in hibernation. All standard liners have a med bay with a medic and two medical robots to treat injuries.

Each ship has 4 escape pod bays one on each floor in a clearly marked area easily accessible by the ship's passengers and each ship carries four 10 passenger launches in external docking blisters. They have a standard communications package and have an emergency beacon, and receiver unit.

It should be noted that as war becomes more apparent many travelers are choosing liners that offer some kind of offensive weaponry to using these vessels, and the Standard Liner may eventually be decommissioned, or may have to be upgraded to carry some form of offensive weaponry.

Royal Shipyards Ambassador Class Space Cruiser

Size: Huge

Cost: 8,500,000cr

Combat modifier: +6

HP: 70

Armor: 13

DR: 20

Defenses: Reinforced hull with reflective properties (-2pts/die from lasers/-1pt/die from plasmas). Damage suppression equipment (-1pt/die)

Defensive Shield: Defensive shield (Type I) **Points/round:** 50 **Maximum points/absorbed:** 200

Weapon: Standard laser cannon (4) **Fire Arc:** Swivel mounted (front/top/bottom/rear) **Range:** 10 **Damage:** 6d10

Engine type: Ion/gravity flux (type F) **Maneuverability:** +4

Stealth: 12

Atmospheric: Escape velocity

Acc/Dec: 3

Cruise: 6

FTL drive type: Tachyon (type G)

Ly/day: 51y/day

Life support capacity: 100

Sensor suite: Type C

Range: 40au

Power plant type: B

Surplus seu/day: 100

Storage capacity: 500

Cargo: 100 tons

Consumables: 1 month

Crew Complement: 1 Captain, pilot, navigator, sensory officer, communications officer, medical officer, 2 engineers, 2 gunners

Notes: The Royal Shipyards of White Light created these elegant ships for transporting ambassadors, and other dignitaries throughout the Frontier. These ships are built with reinforced hulls made of composite Duralloy with reflective properties (-2pts/die from lasers/-1pt/die from plasmas). Damage suppression equipment provides additional protection (-1pt/die) to the ship's occupants. The Ambassador Class space cruiser has an emergency beacon, and receiver unit. They have a full communications array including encryption, and shielding.

These space ships have a bottom sliding docking bay door and carry two fighters and an ambassador class shuttle. The passenger compartment includes 6 luxury class staterooms, and 4 first class staterooms, as well as 20 standard staterooms for its passengers. A full medical bay provides any medical care required by the crew or passengers, and each ship has a robot labor pool including 6 valet robots, 6 protocol robots, and 6 astro-tech robots and a medical robot.

These Ambassador Class space cruisers have 2 work pods, and have 10 escape pods, 2 near the bridge, 6 near the passenger section and 2 behind the belly turret. Lastly these starships have 2 launches in shielded external blisters that have been altered to provide luxury accommodations for up to 6 passengers.

Streel Corporations A-4 Bulk Freighter

Size: Huge

Cost: 9,450,000cr

Combat modifier: +0 **HP:** 50
Armor: 14 **DR:** 22
Defenses: Light armor, Damage suppression equipment (-1 point/die of damage).

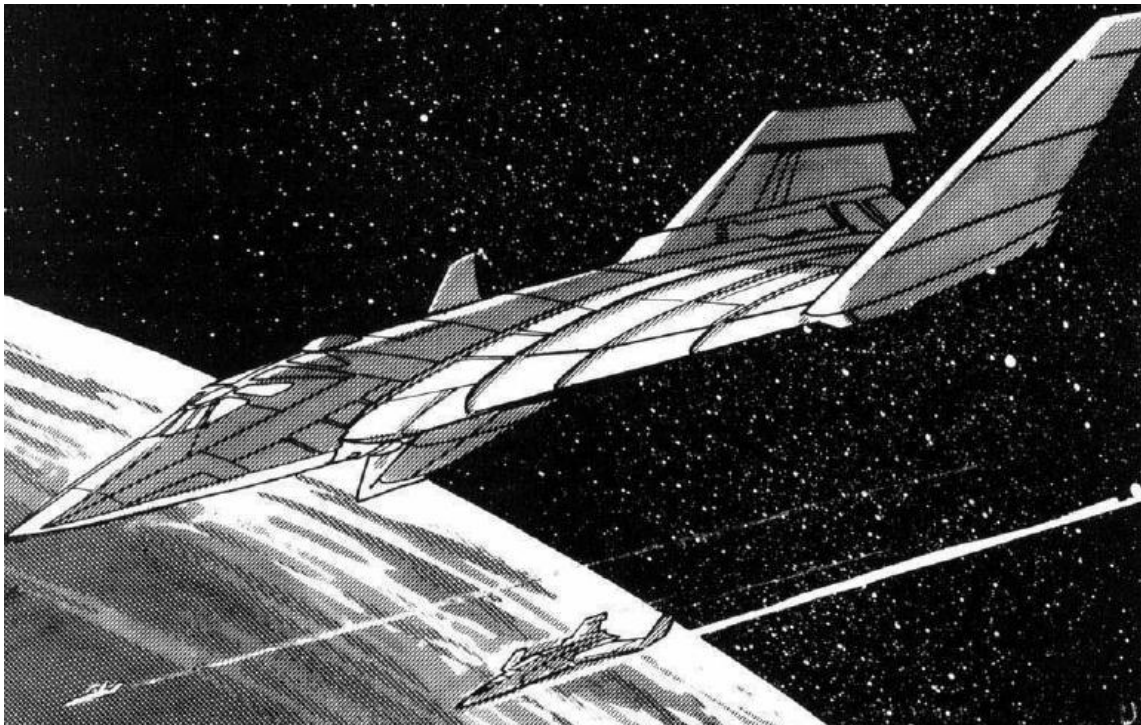
Engine type: Ion/gravity flux (type F) **Maneuverability:** +4 **Stealth:** 12
Atmospheric: Escape velocity **Acc/Dec:** 3 **Cruise:** 6
FTL drive type: Tachyon (type B) **Ly/day:** 1ly/day

Life support capacity: 16 **Sensor suite:** Type A **Range:** 10au
Power plant type: B **Surplus seu/day:** 100 **Storage capacity:** 500
Cargo: 75,000 tons **Consumables:** 3 months

Crew Complement: 1 Captain, 1 pilot, 1 navigator, 1 communications/sensory officer, 1 engineers, 2 technicians

Notes: Strel Corporation's Bulk Freighter was designed to maximize cargo space, by eliminating weapon systems and shields from the ship's design. These ships must operate within safe sectors of Frontier space or as part of well-escorted convoys. The Bulk Freighter can carry huge amounts of cargo which offset the cost of having to use escort ships when traveling outside the core. The ship's cargo hold is designed to carry vast amounts of similar goods as opposed to mixed cargoes requiring different types of stowage facilities.

A Bulk Freighter has a cramped crew compartment with small double bunk staterooms, and has two escape pods, one behind the cockpit, and one in the engineering section. The ship has a communications array that includes an emergency beacon, and receiver. The ship's hull has light armor plating, to offer the ship some protection from attack. It has damage suppression equipment (-1 point/die of damage).



Military

System Ships

Cassidine Development Corporations I-7 Interceptor

Size: Small

Cost: n/a

Combat modifier: +6

HP: 20

Armor: 14

DR: 28

Defenses: Light armor, Damage suppression equipment (-1pt/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasars)

Defensive shields: Defensive shield (Type C) **Points/round:** 10 **Maximum points/absorbed:** 40

Weapon: 2 Twin plaser projectors (2) **Fire Arc:** Wing mounted (fire linked) **Range:** 5 **Damage:** 3d12

Weapon: Retractable Assault rocket launcher **Fire Arc:** Forward firing (bottom)

Missile type: Assault rocket (4)

Range: 5 **Damage:** 3d8

Engine type: Ion/gravity flux (type F) **Maneuverability:** +10

Stealth: 18

Atmospheric: Escape velocity

Acc/Dec: 3

Cruise: 6

FTL drive type: none

Ly/day: n/a

Life support capacity: 1

Sensor suite: Type A

Range: 10au

Power plant type: A

Surplus seu/day: 10

Storage capacity: 50

Cargo: 220lbs

Consumables: 1 week

Crew Complement: 1 pilot

Notes: The I-7 Interceptor is a highly maneuverable fighter. These fighters have been designed with two twin plaser projectors that are fire linked giving them impressive fire power. They also have assault rockets mounted under the wings near their body allowing them to serve as light bombers. These ships have reinforced hulls for additional protection to the pilot, and making them very popular among fighter pilots.

The I-7 Interceptor has a full communications array that includes communications, jamming, shielding and encryption modes. They have damage suppression equipment imbedded under their armored hulls (-1/die of damage), and have a reflective hull (-2 points/die from lasers/-1 point/die from plasars). These ships have an autopilot unit. In the cargo bay there is the equivalent of a full med-pack, and field kit.

Cassidine Development Corporation's Infiltrator Class Stealth Fighter

Size: Small

Cost: n/a

Combat modifier: +6

HP: 10

Armor: 14

DR: 30

Defenses: Light armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasars)

Defensive shields: Defensive shield (Type C) **Points/round:** 10 **Maximum points/absorbed:** 40

Weapon: Plaser projectors (2) **Fire Arc:** Wing mounted (fire linked) **Range:** 5 **Damage:** 2d12

Weapon: Assault rocket launcher **Fire Arc:** Forward firing

Missile type: Assault rockets (6)

Range: 5 **Damage:** 3d8

Engine type: Hyper magnetic (type F) **Maneuverability:** +12

Stealth: 24 (-6 to hit)

Atmospheric: Escape velocity

Acc/Dec: 3

Cruise: 6

FTL drive type: none

Ly/day: n/a

Life support capacity: 1
Power plant type: A
Cargo: 80lbs

Sensor suite: Type B
Surplus seu/day: 10

Range: 20au
Storage capacity: 50
Consumables: 1 day

Crew Complement: 1 pilot

Notes: The Infiltrator Class Stealth Fighter is a highly maneuverable fighter designed by Cassidine Development Corporation to allow fleet ships to drop out of Hyperspace outside a planetary system and deploy these ships as first strike vessels capable of lightning fast raids, before they can be detected by installation sensors. These small ships have been designed with sensor baffling technology adding to their size and shape to make them incredibly difficult to detect with sensors and even making targeting computers have difficulty locking on to them.

The Infiltrator Class Stealth Fighter has a full communications array that includes communications, jamming, shielding interception, and encryption modes. They have damage suppression equipment imbedded under their armored hulls (-1/die of damage), and have a reflective hull (-2 points/die from lasers/-1 point/die from plasers). These ships have an autopilot unit. In the cargo bay there is the equivalent of a full med-pack, and field kit.

Keller Arms Scimitar Class Interceptor

Size: Small

Cost: n/a

Combat modifier: +6

HP: 30

Armor: 14

DR: 32

Defenses: Light armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasers).

Defensive shields: Defensive shield (Type C) **Points/round:** 10 **Maximum points/absorbed:** 40

Weapon: Plaser projectors (2)

Fire Arc: Wing mounted (fire linked)

Range: 5 **Damage:** 2d12

Weapon: Seismic mine launcher

Fire Arc: Rear mounted

Range: 2 **Damage:** 2d12

Missile type: Seismic mine (2)

Engine type: Ion/gravity flux (Mod F)

Maneuverability: +14

Stealth: 22 (-2 to hit)

Atmospheric: Escape velocity

Acc/Dec: 5

Cruise: 9

FTL drive type: none

Ly/day: n/a

Life support capacity: 1

Sensor suite: Type B

Range: 20au

Power plant type: A

Surplus seu/day: 10

Storage capacity: 50

Cargo: 220lbs

Consumables: 1 week

Crew Complement: 1 pilot

Notes: The Scimitar is a crescent shaped fighter produced by War-Tech's chief rival Keller Arms and is Keller arms attempt at entering into contracts with Spacefleet. The ship is their showcase model and has many features that make it desirable. The Scimitar is a highly maneuverable fighter and has been fitted with sensor baffling technology making them incredibly difficult to detect with sensors and even making targeting computers have difficulty locking on to them.

The Scimitar has a full communications array that includes communications, jamming, shielding and encryption modes. They have damage suppression equipment imbedded under their armored hulls (-1/die of damage), and have a reflective hull (-2 points/die from lasers/-1 point/die from plasers). The Scimitar has an autopilot unit and has a slot behind the cockpit for an Astro-tech robot to be fitted. In the cargo bay there is the equivalent of a full med-pack, and field kit.

Royal Shipyards D-7 Dagger

Size: Small

Cost: n/a

Combat modifier: +6 **HP:** 20
Armor: 14 **DR:** 32
Defenses: Light armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plaseras).

Defensive shields: Defensive shield (Type C) **Points/round:** 10 **Maximum points/absorbed:** 40

Weapon: Plaser projectors (2) **Fire Arc:** Wing mounted (fire linked) **Range:** 5 **Damage:** 2d12

Weapon: Seismic mine launcher **Fire Arc:** Rear mounted
Missile type: Seismic mine (2) **Range:** 2 **Damage:** 2d12

Engine type: Ion/gravity flux (Mod F) **Maneuverability:** +14 **Stealth:** 22 (-2 to hit)
Atmospheric: Escape velocity **Acc/Dec:** 4 **Cruise:** 9
FTL drive type: none **Ly/day:** n/a

Life support capacity: 1 **Sensor suite:** Type B **Range:** 20au
Power plant type: A **Surplus seu/day:** 10 **Storage capacity:** 50
Cargo: 220lbs **Consumables:** 1 week

Crew Complement: 1 pilot

Notes: The D-7 Dagger is a highly maneuverable fighter designed by the Royal Shipwrights on White light and is the fighter craft used exclusively on their patrol ships. These small wedge shaped ships have been designed with sensor baffling technology adding to their size and shape to make them incredibly difficult to detect with sensors and even making targeting computers have difficulty locking on to them.

The D-7 Dagger has a full communications array that includes communications, jamming, shielding and encryption modes. They have damage suppression equipment imbedded under their armored hulls (-1/die of damage), and have a reflective hull (-2 points/die from lasers/-1 point/die from plaseras). The D-7 Dagger has an autopilot unit. In the cargo bay there is the equivalent of a full med-pack, and field kit.

T-27 Eagle class fighter

Size: Small **Cost:** 20,000cr

Combat modifier: +2 **HP:** 10
Armor: 11 **DR:** 22
Defenses: Duroplas armor coat, Reflective hull (-2 points/die from lasers/-1 point/die from plaseras)

Defensive shields: Defensive shield (Type: B) **Points/round:** 5 **Maximum points/absorbed:** 20

Weapon: laser projector (2) **Fire Arc:** Forward fire-linked **Range:** 5 **Damage:** 2d10

Weapon: Assault rocket launcher **Fire Arc:** Forward firing
Missile type: Assault rocket **Range:** 5 **Damage:** 3d8

Engine type: Chemical (type A) **Maneuverability:** +10 **Stealth:** 18
Atmospheric: Escape velocity **Acc/Dec:** 1 **Cruise:** 1
FTL drive type: none **Ly/day:** n/a

Life support capacity: 2 **Sensor suite:** Type A **Range:** 10au
Power plant type: A **Surplus seu/day:** 10 **Storage capacity:** 50
Cargo: 130lbs **Consumables:** 1 day

Crew Complement: 1 pilot

Notes: The T-27 Eagle is the oldest fighter still in use in the Frontier though now they can only be found in the smallest

outposts of the Rim. Many of these ships are used to train pilots at Golwin Academy. These ships are incredibly inexpensive. These ships have Duroplas armor coating and have a reflective hull (-2pts/die from lasers or -1pts/die from plasars). These ships have a standard communication unit.

Wartech's H-7 Heavy Assault Interceptor

Size: Small **Cost:** n/a
Combat modifier: +6 **HP:** 20
Armor: 14 **DR:** 28
Defenses: Light armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasars).

Defensive Shields: Defensive shield (Type C) **Points/round:** 10 **Maximum points/absorbed:** 40

Weapon: light laser cannon **Fire Arc:** Swivel mounted (top) **Range:** 8 **Damage:** 4d8

Weapon: Retractable Assault rocket launcher **Fire Arc:** Forward firing (bottom)
Missile type: Assault rocket (6) **Range:** 5 **Damage:** 3d8

Engine type: Ion/gravity flux (type F) **Maneuverability:** +10 **Stealth:** 18
Atmospheric: Escape velocity **Acc/Dec:** 3 **Cruise:** 6
FTL drive type: none **Ly/day:** n/a

Life support capacity: 1 **Sensor suite:** Type B **Range:** 20au
Power plant type: A **Surplus seu/day:** 10 **Storage capacity:** 50
Cargo: 50lbs **Consumables:** 1 day

Crew Complement: 1 pilot

Notes: Wartech has created this fighter craft basically as a mobile gun platform in fighter form. These ships are designed to serve as wingmen to other interceptors and the combination when working together are quite lethal. This ships can also be employed as light bombers and perform exceptionally well against moving ground targets. The only drawback is that due to space required by the modified laser cannon, these ships cannot be fitted with a FTL drive system. These ships have reinforced hulls for additional protection to the pilot, and making them very popular among fighter pilots.

The Heavy Assault Interceptor has a full communications array that includes communications jamming, shielding and encryption modes. They have damage suppression equipment imbedded under their armored hulls (-1/die of damage), and have a reflective hull (-2 points/die from lasers/-1 point/die from plasars). These ships have an autopilot unit. In the cargo bay there is the equivalent of a full med-pack, and field kit.

ZL-9 Vigilance Class Interceptor

Size: Small **Cost:** n/a

Combat modifier: +6 **HP:** 10
Armor: 14 **DR:** 32
Defenses: Light armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasars)

Weapon: Plaser projectors (2) **Fire Arc:** Wing mounted (fire linked) **Range:** 5 **Damage:** 2d12

Engine type: Ion/gravity flux (type F) **Maneuverability:** +14 **Stealth:** 22 (-2 to hit)
Atmospheric: Escape velocity **Acc/Dec:** 3 **Cruise:** 6
FTL drive type: none **Ly/day:** n/a

Life support capacity: 1 **Sensor suite:** Type A **Range:** 10au
Power plant type: A **Surplus seu/day:** 10 **Storage capacity:** 50

Cargo: 220lbs

Consumables: 1 week

Crew Complement: 1 pilot

Notes: The ZL-9 Vigilance Class Interceptor is a highly maneuverable fighter. These small ships have been designed with sensor baffling technology adding to their size and shape to make them incredibly difficult to detect with sensors and even making targeting computers have difficulty locking on to them.

The ZL-9 Vigilance Class Interceptor has a full communications array that includes communications, jamming, shielding and encryption modes. They have damage suppression equipment imbedded under their armored hulls (-1/die of damage), and have a reflective hull (-2 points/die from lasers/-1 point/die from plasmas). The ZL-9 Vigilance Class Interceptor has an autopilot unit. In the cargo bay there is the equivalent of a full med-pack, and field kit.

Corvette

Size: Large

Cost: n/a

Combat modifier: +8

HP: 30

Armor: 15

DR: 28

Defenses: Medium armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasmas).

Defensive shields: Defensive Shield (Type F) **Points/round:** 25 **Maximum points/absorbed:** 100

Weapon: Standard laser cannons (2)

Fire Arc: Swivel mounted (top/bottom)

Range: 10

Damage: 6d8

Weapon: Plasma battery (2)

Fire Arc: Rear mounted

Range: 5

Damage: 3d10

Engine type: Type A Fusion (Type B)

Maneuverability: +8

Stealth: 14

Atmospheric: n/a

Acc/Dec: 1

Cruise: 2

FTL drive type: none

Ly/day: n/a

Life support capacity: 100

Sensor suite: Type B

Range: 20au

Power plant type: B

Surplus seu/day: 100

Storage capacity: 500

Cargo: 50 tons

Consumables: 1 month

Crew Complement: 60 (good quality: Initiative +2 Hit: +4 Skill: +4)

Notes: Corvette-class vessels are midsize patrol ships, common throughout the Frontier. They have been designed using composite armor hulls with damage suppression equipment, imbedded in the armor plate (-1pt/die damage), and they have reflective hulls (-2 points/die from lasers and -1/die from plasmas) Corvettes were used in the Rim since it's formation and seemed to be the ship of choice for space pirates to hijack (many corvettes have vanished only to reappear modified for interstellar travel, and bearing the markings of several large pirate organizations still active in the Rim).

The corvette has a full communication array with communication jamming, encryption, and shielding, and has a white noise generator. They are equipped with 4 escape pods in a bay on the bottommost deck of the ship behind the ship's belly turret and the pods fire forward away from the ship. Each corvette has two side mounted launches in external docking pods, and each Corvette has two work pods in external docking blisters.

Keller Arms Assault Shuttle

Size: Large

Cost: n/a

Combat modifier: +2

HP: 40

Armor: 14

DR: 26

Defenses: Light armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasmas)

Defensive shields: Defensive shield (Class E) **Points/round:** 20 **Maximum points/absorbed:** 80

Weapon: Light plaser cannon **Fire Arc:** Swivel mounted (top) **Range:** 8 **Damage:** 5d8

Weapon: Retractable assault rocket launcher **Fire Arc:** Forward firing (bottom)
Missile type: Assault rocket (20) **Range:** 5 **Damage:** 3d8

Engine type: Ion/gravity flux (type F) **Maneuverability:** +8 **Stealth:** 14
Atmospheric: Escape velocity **Acc/Dec:** 3 **Cruise:** 6
FTL drive type: none **Ly/day:** n/a

Life support capacity: 60 **Sensor suite:** Type A **Range:** 10au
Power plant type: B **Surplus seu/day:** 100 **Storage capacity:** 500
Cargo: 50 tons **Consumables:** 1 day

Crew Complement: 1 pilot, 1 navigator, 1 communications officer, 1 sensory officer, 2 engineers, 1 gunnery officer

Notes: Keller Arms designed these shuttles to serve as military transports for Frontier Marines, and can serve a variety of functions, from transporting platoons onto a battlefield to carrying boarding parties or prisoners. These shuttles have greatly reinforced frames and have good defensive shielding. They are well armed and are often used to finish off disabled enemy ships, once the boarding party has completed its mission.

Each Assault Shuttle can carry up to 40 troops and can stow up to 50 tons of gear. They have a wide bottom opening bay door that can allow vehicles to drive up the ramp into the shuttle's hold. Each shuttle also has an autodoc, with a medical robot that is kept in a storage locker, and has a brig that can hold up to 10 prisoners in cramped conditions.

The Assault Shuttle's armored hull has damage suppression equipment imbedded into it (-1 point/die of damage) and the ship has a reflective hull (-2points/die from lasers/-1pt/die from plasers). The Shuttle has a full communications assembly including communications, jamming, encryption, and shielding modes, and has an emergency beacon/receiver and a white noise broadcaster. The shuttle has 6 cameras on its hull and skin sensors to detect intruders, and it has an extending airlock with a 30' range. Lastly each shuttle has two workpods in external docking blisters, and has two escape pods in the passenger compartment.

Sentry Class Patrol Cruiser

Size: Large

Combat modifier: +12 **HP:** 30
Armor: 15 **DR:** 26
Defenses: Medium armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasers).

Defensive shields: Defensive shield (Type E) **Points/round:** 20 **Maximum points/absorbed:** 80

Weapon: Standard laser cannons (2) **Fire Arc:** Forward firing (fire linked) **Range:** 10 **Damage:** 6d10
Weapon: Standard laser cannons (2) **Fire Arc:** Swivel mounted (top/bottom) **Range:** 10 **Damage:** 6d8

Engine type: Ion/gravity flux (type F) **Maneuverability:** +6 **Stealth:** 16
Atmospheric: Escape velocity **Acc/Dec:** 3 **Cruise:** 6
FTL drive type: none **Ly/day:** n/a

Life support capacity: 100 **Sensor suite:** Type C **Range:** 40au
Power plant type: B **Surplus seu/day:** 100 **Storage capacity:** 500
Cargo: 200 tons **Consumables:** 3 months

Crew Complement: 64 (good quality: Initiative +2 Hit: +4 Skill: +4)

Notes: With the threat of the Sathar and the devastation they wrought fresh in the minds of most Frontier citizens, Space fleet has commissioned these small patrol cruisers to insure the space lanes and to secure the edges of many core

star systems, with more being built to serve the same purpose in the outer Frontier. While not particularly well armed, these ships are still a match for most common space traffic, acting as a deterrent for the not-so-serious criminal.

They have been designed using composite armor hulls with damage suppression equipment, imbedded in the armor plate (-1pt/die damage), and they have reflective hulls (-2 points/die from lasers and -1/die from plasmas) The Sentry Classed Patrol Cruiser have a full communication array with communication jamming, encryption, interception, and shielding, and have a white noise generator. They are equipped with 4 escape pods in a bay on the bottommost deck of the ship behind the ship's belly turret and the pods fire forward away from the ship. Each Sentry Classed Patrol Cruiser has two side mounted launches in external docking pods, and also have two work pods in external docking blisters.

Frigate

Size: Gargantuan

Cost: n/a

Combat modifier: +8

HP: 100

Armor: 15

DR: 21

Defenses: Medium armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasmas).

Defensive shields: Defensive shield (Class D) **Points/round:** 15 **Maximum points/absorbed:** 60

Weapon: Standard laser cannons (4) **Fire Arc:** Swivel mounted (top/bottom) **Range:** 10 **Damage:** 6d8

Weapon: Missile batteries (4) **Fire Arc:** Side firing (2/side)

Missile type: Standard (20 missiles/launcher) **Range:** 5 **Damage:** 2d8

Engine type: Type A Fusion (Type B) **Maneuverability:** +1

Stealth: 11

Atmospheric: n/a

Acc/Dec: 1

Cruise: 2

FTL drive type: none

Ly/day: n/a

Life support capacity: 200

Sensor suite: Type A

Range: 10au

Power plant type: B

Surplus seu/day: 100

Storage capacity: 500

Cargo: 50 tons

Consumables: 1 month

Crew Complement: 100 (good quality: Initiative +2 Hit: +4 Skill: +4)

Notes: Frigates are the oldest battleships in the Frontier and at one time were the mainstay of the fleet. Frigates however have slowly been decommissioned as newer versions capable of interstellar travel have been built. These older ships are now mostly used for planetary defense in the Rim, or have been deployed to protect colonies and mining interests in the outer systems. Frigates have medium grade armor and have a fairly decent energy shield generator.

They are fitted with 6 cameras and have skin sensors to detect intruders on their hull. They carry a complement of five T-27 Eagles as support fighter craft. These ships have a tractor beam allowing them to immobilize and draw in ships of up to Large size. Frigates have two ten passenger launches to move boarding parties onto captured ships in ducking blisters on the stern of the ship. A Frigate's engine cluster is located in twin pairs on struts in the stern of the ship. Frigates have reflective coatings (-2 points/die from lasers and -1/die from plasmas) and each ship has damage suppression systems (-1pt/die damage). They have a full communications array including communication jamming, encryption, and shielding, and have a white noise broadcaster array. These ships carry three workpods in underside forward facing docking blisters, and they have 10 escape pods.

Destroyers

Size: Gargantuan

Cost: n/a

Combat modifier: +8

HP: 100

Armor: 16

DR: 23

Defenses: Heavy armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasmas)

Defensive shields: Defensive shield (Class E) **Points/round:** 20 **Maximum points/absorbed:** 80

Weapon: Standard laser cannons (4) **Fire Arc:** Swivel mounted (top/bottom) **Range:** 10 **Damage:** 6d8

Weapon: Missile batteries (4) **Fire Arc:** Side firing (2/side)
Missile type: Standard (20 missiles/launcher) **Range:** 5 **Damage:** 2d8

Weapon: Assault rocket launcher **Fire Arc:** Forward firing
Missile type: Assault rocket (10) **Range:** 5 **Damage:** 3d8

Weapon: Mine launcher **Fire Arc:** Rear mounted
Missile type: Mines (10) **Range:** 1 **Damage:** 2d6

Engine type: Type A Fusion (Type B) **Maneuverability:** +1 **Stealth:** 11
Atmospheric: n/a **Acc/Dec:** 1 **Cruise:** 2
FTL drive type: none **Ly/day:** n/a

Life support capacity: 400 **Sensor suite:** Type B **Range:** 20au
Power plant type: B **Surplus seu/day:** 100 **Storage capacity:** 500
Cargo: 50 tons **Consumables:** 1 month

Crew Complement: 200 crewmen (good quality: Initiative +2 Hit: +4 Skill: +4)

Notes: These ships originally served as the Battleship for a fledgling Frontier, and their service record has been so impressive that the destroyer class has in the past 200 years been the frontline planetary defender. Many planets throughout the core and central systems have fleets of these ships providing protection from attack. Destroyers are heavily armored and have good energy shielding.

They are fitted with 6 cameras and skin sensors to detect intruders on their hull. Each Destroyer carries ten T-27 fighters as support ships. These ships have a tractor beam allowing them to immobilize and draw in ships up to Large size. The Destroyer has two external docking bays in the stern of the ship, behind the fighter bay, where it carries two ten passenger launches to move boarding parties onto captured ships.

Destroyers have reflective coatings (-2 points/die from lasers and -1/die from plasmas) and each ship has damage suppression systems (-1pt/die damage). They have a full communications array including communication jamming, encryption, and shielding, and have a white noise broadcaster array. These ships carry three workpods in external docking blisters that are accessible from the destroyer's engineering section. Each Destroyer has twin engine pods connected to the ship by reinforced struts, and they have 20 escape pods in easily accessible locations throughout the ship.



Starships

K-1000 Knight Hawk Star Fighter

Size: Small

Cost: n/a

Combat modifier: +8

HP: 30

Armor: 14

DR: 32

Defenses: Light armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasars)

Defensive shields: Defensive shield (Type C) **Points/round:** 10 **Maximum points/absorbed:** 40

Weapon: Twin plaser projectors (2) **Fire Arc:** Wing mounted (fire-linked) **Range:** 5 **Damage:** 3d20

Weapon: Proton torpedo launcher **Fire Arc:** Forward firing
Missile type: Proton torpedo (4) **Range:** 10 **Damage:** 6d10

Weapon: Seismic mine launcher **Fire Arc:** Rear mounted
Missile type: Seismic mine (2) **Range:** 2 **Damage:** 2d12

Engine type: Ion/gravity flux (Mod F) **Maneuverability:** +14

Stealth: 24 (-6 to hit)

Atmospheric: Escape velocity **Acc/Dec:** 5

Cruise: 9

FTL drive type: Tachyon (Modified type E)

Ly/day: 4ly/day

Life support capacity: 1

Sensor suite: Type C

Range: 40au

Power plant type: A

Surplus seu/day: 10

Storage capacity: 50

Cargo: 200lbs

Consumables: 1 week

Crew Complement: 1 pilot

Notes: With war a firm possibility in the Frontier the designers of the Knight Hawk Star fighter were commissioned to upgrade their Knight Hawk design, and have come up with the K-1000 Knight Hawk Star fighter. At the present time these ships can only be found aboard Battleships, and the few Dreadnaughts that have been deployed by Spacefleet to patrol the Core worlds of the Frontier. If these Star fighters prove to be as effective in combat as the ship's they were designed to replace, they will eventually be deployed to other Star fighters in the fleet.

These Knight Hawks have been built with damage suppression equipment imbedded under their armored hulls (-1/die of damage), and have a reflective hull (-2 points/die from lasers/-1 point/die from plasars). Stealth units have been embedded in the Star fighter's hull making them incredibly difficult ships to detect, and often targeting computers fail to lock on to these ships.

The K-1000 Knight Hawk Star fighter has a full communications array that includes communications, jamming, interception, shielding and encryption modes. The Knight Hawk has an autopilot unit and has a miniature astrogation computer to allow the ship to make Interstellar trips. The Pilot has a small guidance computer mount with heads up display. These ships are the first ships in the Frontier where the cockpit module can eject and has a 20 hour emergency generator allowing the cockpit to maintain its life support systems and sensors until the pilot can be rescued. In the cargo bay there is the equivalent of a full med-pack, and field kit.

Knight Hawk Star Fighter

Size: Small

Cost: n/a

Combat modifier: +6

HP: 30

Armor: 14

DR: 32

Defenses: Light armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasars)

Defensive shields: Defensive shield (Type C) **Points/round:** 10 **Maximum points/absorbed:** 40

Weapon: Plaser projectors (2) **Fire Arc:** Wing mounted (fire linked) **Range:** 5 **Damage:** 2d12

Weapon: Seeker missile launcher (6) **Fire Arc:** Forward firing
Missile type: Seeker missiles (6) **Range:** 5 **Damage:** 3d8

Weapon: Seismic mine launcher **Fire Arc:** Rear mounted
Missile type: Seismic mine (2) **Range:** 2 **Damage:** 2d12

Engine type: Ion/gravity flux (Mod F) **Maneuverability:** +12 **Stealth:** 18
Atmospheric: Escape velocity **Acc/Dec:** 5 **Cruise:** 9
FTL drive type: Tachyon (Type E) **Ly/day:** 3ly/day

Life support capacity: 1 **Sensor suite:** Type A **Range:** 10au
Power plant type: A **Surplus seu/day:** 10 **Storage capacity:** 50
Cargo: 220lbs **Consumables:** 1 week

Crew Complement: 1 pilot

Notes: The Knight Hawk Star fighter is considered the best Star fighter ever produced and its creator's identity and who manufactures them is a closely guarded secret. The Knight Hawk has a full communications array that includes communications, jamming, shielding and encryption modes. They have damage suppression equipment imbedded under their armored hulls (-1/die of damage), and have a reflective hull (-2 points/die from lasers/-1 point/die from plasers). The Knight Hawk Star fighter has an autopilot unit and has a miniature astrogation computer to allow the ship to make interstellar trips. In the cargo bay there is the equivalent of a full med-pack, and field kit.

Royal Shipyards D-7a Dagger

Size: Small **Cost:** n/a

Combat modifier: +6 **HP:** 30
Armor: 14 **DR:** 32

Defenses: Light armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasers).

Defensive shields: Defensive shield (Type C) **Points/round:** 10 **Maximum points/absorbed:** 40

Weapon: Plaser projectors (2) **Fire Arc:** Wing mounted (fire linked) **Range:** 5 **Damage:** 2d12

Weapon: Seismic mine launcher **Fire Arc:** Rear mounted
Missile type: Seismic mine (2) **Range:** 2 **Damage:** 2d12

Engine type: Ion/gravity flux (Type G) **Maneuverability:** +14 **Stealth:** 22 (-2 to hit)
Atmospheric: Escape velocity **Acc/Dec:** 4 **Cruise:** 8
FTL drive type: Tachyon (Type E) **Ly/day:** 3ly/day

Life support capacity: 1 **Sensor suite:** Type B **Range:** 20au
Power plant type: A **Surplus seu/day:** 10 **Storage capacity:** 50
Cargo: 110lbs **Consumables:** 1 week

Crew Complement: 1 pilot

Notes: The D-7a Dagger is a modified version of the standard fighter designed by the Royal Shipwrights on White Light. These ships have a FTL drive unit that is set in a docking rig allowing the craft to make Void jumps and then detach from the ring when they arrive at their destination. Typically a Tachyon FTL drive is used that can allow the ship to move at 3ly/day.

These ships are small, wedge shaped, and have been designed with sensor baffling technology adding to their size and

shape to make them incredibly difficult to detect with sensors and even making targeting computers have difficulty locking on to them. The D-7a Dagger has a full communications array that includes communications, jamming, shielding and encryption modes. They have damage suppression equipment imbedded under their armored hulls (-1/die of damage), and have a reflective hull (-2 points/die from lasers/-1 point/die from plasmas). The D-7a Dagger has an autopilot unit and has astrogation equipment allowing the pilot to plot Interstellar trips. In the cargo bay there is the equivalent of a full med-pack, and field kit.

Royal Shipyards Stiletto Class Star Fighter

Size: Small

Cost: n/a

Combat modifier: +4

HP: 20

Armor: 14

DR: 28

Defenses: Light armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasmas)

Defensive shields: Defensive shield (Type B) **Points/round:** 5 **Maximum points/absorbed:** 20

Weapon: Plaser projectors (2)

Fire Arc: Wing mounted (fire-linked)

Range: 5 **Damage:** 2d12

Weapon: Concussion missile launcher (2)

Fire Arc: Forward firing

Missile type: Concussion torpedoes (6)

Range: 10 **Damage:** 3d4

Engine type: Ion/gravity flux (type F)

Maneuverability: +10

Stealth: 18

Atmospheric: Escape velocity

Acc/Dec: 3

Cruise: 6

FTL drive type: Tachyon (Type E)

Ly/day: 3ly/day

Life support capacity: 1

Sensor suite: Type B

Range: 20au

Power plant type: A

Surplus seu/day: 10

Storage capacity: 50

Cargo: 200lbs

Consumables: 1 day

Crew Complement: 1 pilot

Notes: The Royal Shipyards of White Light have produced an elegant Star fighter whose main purpose is escorting the Royal Family or Ambassadors on their journeys from White Light to Prenglar. These slender ships have a unique design with a slender nose, backswept wings and sweeping engine cowling that comes to a point giving the ship its classification.

The Stiletto Class Star fighter's communications array includes communications, shielding and encryption modes. They have damage suppression equipment imbedded beneath their armored hulls (-1/die of damage), and have a reflective hull (-2 points/die from lasers/-1 point/die from plasmas). These elegant Star fighters have an autopilot unit and have a miniature astrogation computer to allow the ship to make interstellar trips. In the cargo bay there is the equivalent of a full med-pack, and field kit.

Vrusk Dynamics Corporation War-Wing Star Fighter

Size: Small

Cost: n/a

Combat modifier: +6

HP: 30

Armor: 14

DR: 28

Defenses: Light armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasmas)

Defensive shields: Defensive shield (Type C) **Points/round:** 10 **Maximum points/absorbed:** 40

Weapon: Plaser projectors (2)

Fire Arc: Wing mounted (fire-linked)

Range: 5 **Damage:** 2d12

Weapon: Light plaser cannon

Fire Arc: Wing mounted

Range: 8 **Damage:** 5d8

Weapon: Assault rocket launcher

Fire Arc: Forward firing

Missile type: Assault rockets (6)

Range: 5 **Damage:** 3d8

Engine type: Ion/gravity flux (type F) **Maneuverability:** +10
Atmospheric: Escape velocity **Acc/Dec:** 3
FTL drive type: Tachyon (Type E)

Stealth: 18
Cruise: 6
Ly/day: 3ly/day

Life support capacity: 2 **Sensor suite:** Type B
Power plant type: A **Surplus seu/day:** 10
Cargo: 250lbs

Range: 20au
Storage capacity: 50
Consumables: 1 week

Crew Complement: 1 pilot, 1 gunner

Notes: The Vrusk designed war-wing is a strange looking ship that closely resembles a large wing with a circular cockpit mounted on top of the ship in front of the ship's engine cluster. The War-Wing is designed with two small wings that can move 180 degrees around the cockpit. This Star fighter packs more fire power than most standard Star fighters in use in the Frontier. These ships often serve as escort ships for Vrusk cargo carriers throughout the Frontier.

These ships have been designed with a full communications array that includes communications, jamming, shielding and encryption modes. They have damage suppression equipment imbedded under their armored hulls (-1/die of damage), and have a reflective hull (-2 points/die from lasers/-1 point/die from plasars). Vrusk Dynamics Corporation's War-Wing has an autopilot unit and has an astrogation computer that allowing the ship to make Void jump calculations that enable the ship to cross interstellar distances rather quickly. In the cargo bay there is the equivalent of a full med-pack, and field kit.

Wartech's T-95 Star Fighter

Size: Small

Cost: n/a

Combat modifier: +4

HP: 20

Armor: 14

DR: 28

Defenses: Light armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasars)

Defensive shields: Defensive shield (Type B) **Points/round:** 5 **Maximum points/absorbed:** 20

Weapon: Plaser projectors (2)

Fire Arc: Wing mounted (fire-linked)

Range: 5 **Damage:** 2d12

Weapon: Concussion torpedo launcher (2)

Fire Arc: Forward firing

Missile type: Concussion torpedoes (6)

Range: 10 **Damage:** 3d4

Engine type: Ion/gravity flux (Type G) **Maneuverability:** +10
Atmospheric: Escape velocity **Acc/Dec:** 4
FTL drive type: Tachyon (Type E)

Stealth: 18
Cruise: 8
Ly/day: 3ly/day

Life support capacity: 1 **Sensor suite:** Type B
Power plant type: A **Surplus seu/day:** 10
Cargo: 150lbs

Range: 20au
Storage capacity: 50
Consumables: 1 day

Crew Complement: 1 pilot

Notes: War-Tech's T-95 Star fighter was the ultimate in Star fighter technology before they were replaced by the Knight Hawk and is still in use throughout the Frontier mostly by planets within the outer systems who have their own Spacefleet. They have damage suppression equipment imbedded under their armored hulls (-1/die of damage), and have a reflective hull (-2 points/die from lasers/-1 point/die from plasars).

The T-95 Star fighter's communications array includes communications, shielding and encryption modes. The star fighter has been designed with an autopilot unit and has a miniature astrogation computer to allow the ship to make Interstellar trips. In the cargo bay there is the equivalent of a full med-kit, and a field kit.

Assault Scout

Size: Large

Cost: n/a

Combat modifier: +4

HP: 30

Armor: 17

DR: 36

Defenses: Light armor, Duralloy coating, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasars)

Defensive shields: Defensive shield (Class G) **Points/round:** 30 **Maximum points/absorbed:** 120

Weapon: Plaser cannons (2)

Fire Arc: Top/bottom (swivel mounted)

Range: 10 **Damage:** 6d8

Weapon: Assault rocket launcher

Fire Arc: Forward firing

Missile type: Assault rocket (10)

Range: 5 **Damage:** 3d8

Engine type: Ion/gravity flux (Type G) **Maneuverability:** +12

Stealth: 18

Atmospheric: Escape velocity

Acc/Dec: 4

Cruise: 8

FTL drive type: Tachyon (Type I)

Ly/day: 7ly/day

Life support capacity: 16

Sensor suite: C

Range: 40au

Power plant type: B

Surplus seu/day: 100

Storage capacity: 500

Cargo: 250lbs

Consumables: 2 weeks

Crew Complement: 1 pilot, 1 navigator, 1 communications/sensory officer, 2 gunners

Notes: The Assault Scout has earned a reputation as one of the most feared ships in the Frontier and they are worthy of that reputation. Assault scouts are built by a number of Corporations each that is responsible only for developing and building only a specified section of the ship to insure that the blueprints to these ships does not leak out. An Assault Scout has a light armored hull, with duralloy and reflective coatings (-2 points/die from lasers/-1 point/die from plasars) and each ship has damage suppression systems (-1pt/die damage). Sensor baffling systems make them a hard target to spot by ship sensors, and their maneuverability is impressive for a ship of that size.

The ship has an emergency beacon/receiver, and has three escape pods one set between the bridge and crew quarters, and two between the crew quarters and engineering section. These ships have 5 tachyon beacon launchers in a cluster beneath the nose of the ship. They have a side mounted tractor beam projector that can haul a Small ship to the side airlock. Each Assault Scout has a full communication array with communication jamming, encryption, interception and shielding package, and they have a white noise generator. The starship has skin sensors and 6 cameras that provide it with a way to detect if intruders are on the ship's hull.

Military Corvette

Size: Large

Cost: n/a

Combat modifier: +8

HP: 40

Armor: 15

DR: 28

Defenses: Medium armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasars).

Defensive shields: Defensive shield (Type F) **Points/round:** 25 **Maximum points/absorbed:** 100

Weapon: Standard laser cannons (2)

Fire Arc: Swivel mounted (top/bottom)

Range: 10 **Damage:** 6d8

Weapon: Plasma battery (2)

Fire Arc: Rear mounted

Range: 5 **Damage:** 3d10

Weapon: Retractable Assault rocket launcher

Fire Arc: Forward firing (bottom)

Missile type: Assault rocket (10)

Range: 5 **Damage:** 3d8

Engine type: Ion/gravity flux (type F) **Maneuverability:** +8

Stealth: 14

Atmospheric: Escape velocity

Acc/Dec: 3

Cruise: 6

FTL drive type: Tachyon (Type F)

Ly/day: 4ly/day

Life support capacity: 100
Power plant type: B
Cargo: 50 tons

Sensor suite: Type B
Surplus seu/day: 100

Range: 20au
Storage capacity: 500
Consumables: 6 month

Crew Complement: 60 (good quality: Initiative +2 Hit: +4 Skill: +4)

Notes: The assault on the Frontier by the Sathar caused the UPF and Spacefleet to rethink its policies and many Corvettes that were scheduled for decommission have been refitted to be used as midsize patrol ships with the capability of serving as an escort ship and support ship for Assault Scouts. They are among the smallest warships in the Frontier and are equipped so they can operate for extended periods in isolated systems far from their base of operations. They are designed with flight surfaces and are capable of atmospheric flight.

The modified Corvettes have composite armor hulls with damage suppression equipment, imbedded in the armor plate (-1pt/die damage), and they have reflective hulls (-2 points/die from lasers/-1 point/die from plasars). They have skin sensors and 6 cameras that are designed to detect intruders on the ship's hull.

The Military Corvette has a full communication array with communication jamming, encryption, interception, and shielding. This communications package also includes a white noise generator. These refitted spaceships have four escape pods in a bay on the bottommost deck of the ship behind the ship's belly turret and the pods fire forward away from the ship. Each Military Corvette has two side mounted launches in external docking pods, and two work pods in docking blisters in the engineering section of the ship.

Frigate

Size: Gargantuan

Cost: n/a

Combat modifier: +8

HP: 100

Armor: 15

DR: 23

Defenses: Medium armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasars)

Defensive shields: Defensive shield (Class E) **Points/round:** 20 **Maximum points/absorbed:** 80

Weapon: Standard laser cannons (4) **Fire Arc:** Swivel mounted (top/bottom) **Range:** 10 **Damage:** 6d8

Weapon: Missile batteries (4) **Fire Arc:** Side firing (2/side)

Missile type: Standard (20 missiles)

Range: 5 **Damage:** 2d8

Engine type: Ion/gravity flux (type F)

Maneuverability: +3

Stealth: 11

Atmospheric: n/a

Acc/Dec: 3

Cruise: 6

FTL drive type: Tachyon (Type G)

Ly/day: 5ly/day

Life support capacity: 200

Sensor suite: Type B

Range: 20au

Power plant type: B

Surplus seu/day: 100

Storage capacity: 500

Cargo: 50 tons

Consumables: 1 month

Crew Complement: 100 (good quality: Initiative +2 Hit: +4 Skill: +4)

Notes: The Starfleet has commissioned these new Frigates for the coming war to serve mostly as escorts and patrol ships and are the smallest warships in use in the Starfleet. Frigates have medium grade armor and have good energy shielding. Frigates have reflective coatings (-2 points/die from lasers/-1 point/die from plasars) and each ship has damage suppression systems (-1pt/die damage). They are fitted with 6 cameras set to view key areas of the ship's hull and skin sensors to detect possible boarders.

These Frigates have an underside landing bay and carry an Assault Scout and two Knight Hawks as support ships. These Starships have a tractor beam unit that allows them to immobilize and draw in ships up to Large size, and they carry two ten passenger launches in side docking blisters to move boarding parties onto captured ships. They have a full communications array including communication jamming, encryption, interception, and shielding, and have a white

noise broadcaster array. These ships carry 3 workpods in docking blisters in the stern of the ship. Distributed in clearly marked areas of the ship particularly between the command deck and the crew quarters these ships have 10 escape pods.

Destroyers

Size: Gargantuan

Cost: n/a

Combat modifier: +8

HP: 100

Armor: 16

DR: 25

Defenses: Heavy armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasars)

Defensive shields: Defensive shield (Class E) **Points/round:** 20 **Maximum points/absorbed:** 80

Weapon: Standard laser cannons (4) **Fire Arc:** Swivel mounted (top/bottom) **Range:** 10 **Damage:** 6d8

Weapon: Missile batteries (4) **Fire Arc:** Side firing (2/side) **Range:** 5 **Damage:** 2d8
Missile type: Standard (20 missiles)

Weapon: Assault rocket launcher **Fire Arc:** Forward firing **Range:** 5 **Damage:** 3d8
Missile type: Assault rocket (10)

Weapon: Mine launcher **Fire Arc:** Rear mounted **Range:** 1 **Damage:** 2d6
Missile type: Mines (10)

Engine type: Ion/gravity flux (Type G) **Maneuverability:** +3 **Stealth** 11
Atmospheric: n/a **Acc/Dec:** 4 **Cruise:** 8
FTL drive type: Tachyon (Type G) **Ly/day:** 5ly/day

Life support capacity: 400 **Sensor suite:** Type B **Range:** 20au
Power plant type: B **Surplus seu/day:** 100 **Storage capacity:** 500
Cargo: 50 tons **Consumables:** 1 month

Crew Complement: 200 crewmen (good quality: Initiative +2 Hit: +4 Skill: +4)

Notes: The Destroyer class of ships originally served as the Battleship for a fledgling Frontier, and since the devastating attack of the Sather on the Frontier the Spacefleet has been building these newer versions of the stalwart Destroyer to use them as command ships in the outer systems. These new Destroyers have been built with powerful FTL drives so they can respond relatively quickly to danger. The Destroyers seem to once again be the spacefleet's frontline defense against the Sathar. Currently several taskforces led by these ships have been positioned in secret locations throughout the outer systems in anticipation of another wave of Sathar hostilities.

Destroyers are heavily armored and have good energy shielding. They are fitted with 6 cameras at strategic points along the hull of the ships and skin sensors have been used as well to detect intruders on their hull. Destroyers have reflective coatings (-2 points/die from lasers/-1 point/die from plasars) and each ship has damage suppression systems (-1pt/die damage).

Each Destroyer has two docking bays where they carry a total of ten T-27 Fighters. These ships have a tractor beam allowing them to immobilize and draw in ships up to Large size, and they have two ten passenger launches in external docking ports to move troops onto captured ships. They have a full communications array including communication jamming, encryption, interception and shielding, and have a white noise broadcaster array. These starships carry 3 workpods in external docking blisters that are accessible from the ship's engineering bay. Destroyers carry 20 escape pods in bays situated between the command section and the crew quarters.

Minelayer

Size: Gargantuan

Cost: n/a

Combat modifier: +8 **HP:** 100
Armor: 16 **DR:** 25
Defenses: Heavy armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasars).

Defensive shields: Defensive shield (Class E) **Points/round:** 20 **Maximum points/absorbed:** 80

Weapon: Standard laser cannons (2) **Fire Arc:** Swivel mounted (top/bottom) **Range:** 10 **Damage:** 6d8

Weapon: Mine launcher (20) **Fire Arc:** rear mounted (10 top, 4 on each side, 2 on bottom)
Missile type: Mines (10/launcher) **Range:** 1 **Damage:** 2d6

Engine type: Ion/gravity flux (type F) **Maneuverability:** +3 **Stealth** 11
Atmospheric: n/a **Acc/Dec:** 3 **Cruise:** 6
FTL drive type: Tachyon (Type G) **Ly/day:** 51y/day

Life support capacity: 200 **Sensor suite:** Type B **Range:** 20au
Power plant type: B **Surplus seu/day:** 100 **Storage capacity:** 500
Cargo: 50 tons **Consumables:** 1 month

Crew Complement: 100 crewmen (good quality: Initiative +2 Hit: +4 Skill: +4)

Notes: Minelayers are often used to seal off a planet that is considered hazardous in the Frontier, by deploying hundreds of mines around the planet. These ships have not been used often since the Blue plague swept through several sectors a few decades back. These large ships have heavy armor though they do not carry many weapon systems and depend on escort ships for protection. The Minelayer has good energy shielding to provide them extra protection. They are fitted with 6 video cameras and skin sensors to detect intruders on their hull. A Minelayer has a reflective coating (-2 points/die from lasers/-1 point/die from plasars) and has damage suppression systems (-1pt/die damage) all which make them hardy craft.

Each Minelayer holds five times the number of mines they can readily deploy (1,000 mines) in their cargo bays and most of the ship's crew have the task of reloading the ship's mine launchers when they have deployed their load. This process usually takes about ten hours since the mines have to be primed and armed before being loaded onto their launcher.

The Minelayer's communications array includes communication jamming, and shielding, and these ships have been outfitted with a white noise broadcaster. The Minelayer carries six workpods in docking blisters between the ship's crew compartment and engineering section. They have five escape pods located in two bays one on either side of the ship between the command section and crew quarters for a total of ten escape pods. .

Assault Transports

Size: Gargantuan **Cost:** n/a

Combat modifier: +8 **HP:** 100
Armor: 16 **DR:** 25
Defenses: Heavy armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasars).

Defensive shields: Defensive shield (Type H) **Points/round:** 40 **Maximum points/absorbed:** 160

Weapon: Assault cannon **Fire Arc:** Forward firing (top) **Range:** 20 **Damage:** 8d20
Weapon: Plaser cannon (4) **Fire Arc:** Swivel mounted (side) **Range:** 5 **Damage:** 3d12

Weapon: 4 Rocket batteries (20 rockets each) **Fire Arc:** Side mounted **Range:** 3 **Damage:** 1d10

Weapon: Missile launchers (6) **Fire Arc:** Swivel mounted (bottom)
Missile type: Missiles (10/launcher) **Range:** 5 **Damage:** 2d10

Engine type: Ion/gravity flux (type F) **Maneuverability:** +3 **Stealth** 11

Atmospheric: n/a
FTL drive type: Tachyon (Type G)

Acc/Dec: 3

Cruise: 6
Ly/day: 5ly/day

Life support capacity: 2,000
Power plant type: B
Cargo: 0 (1,000 tons if empty)

Sensor suite: Type B
Surplus seu/day: 100

Range: 20au
Storage capacity: 500
Consumables: 6 months

Crew Complement: 100 crewmen (good quality: Initiative +2 Hit: +4 Skill: +4)

Notes: Assault transports were designed to quickly transport large numbers of troops to a trouble spot and provide support while the troops descend to the planet's surface. The Assault transport is the mobile command platform for the Frontier Marine Corps. Each Assault transport is designed with heavy armor to provide them with exceptional protection against enemy weapons. They have reflective hulls (-2 points/die from lasers/-1 point/die from plasars), and have damage suppression equipment (-1pt/die damage). Set into their hulls, these starships have 12 cameras to provide detection of enemies who may be trying to breach their hulls. These ships have excellent defensive shielding, and have as part of their communications array communication jamming, interception and shielding capabilities as well as a white noise broadcaster.

Each Assault carrier has six escape pods and 4 lifeboats in clearly marked areas near the ship's crew quarters. Assault transports generally carry 1,000 Frontier Marines in relative comfort but if the need arises they can increase their numbers to 1,900 in cramped conditions. The Assault Carrier's massive cargo bays hold 20 hover tanks, 5 command class light assault vehicles, and one viper class sky speeder. They also have an armory with 133 tons of military hardware and equipment for prolonged assaults.

Light Cruiser

Size: Colossal

Cost: n/a

Combat modifier: +12
Armor: 16

HP: 150
DR: 22

Defenses: Heavy armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasars)

Defensive shields: Defensive shield (Type I) **Points/round:** 50 **Maximum points/absorbed:** 200

Weapon: Turbo laser cannon (3)	Fire Arc: Swivel mounted (forward top)	Range: 14	Damage: 10d10
Weapon: Plasar battery (4)	Fire Arc: Swivel mounted (rear)	Range: 5	Damage: 3d12
Weapon: Electron battery (2)	Fire Arc: Side mounted	Range: 5	Damage: 3d6
Weapon: Proton battery (2)	Fire Arc: Side mounted	Range: 5	Damage: 3d20

Weapon: 6 Rocket batteries	Fire Arc: Swivel mounted (underside)		
Missile type: Rockets (20/battery)		Range: 3	Damage: 1d10

Weapon: Torpedo tubes (4)	Fire Arc: Side mounted (2/side)		
Missile type: Plasma torpedoes (10/launcher)		Range: 10	Damage: 6d6

Engine type: Ion/gravity flux (type F)	Maneuverability: +0	Stealth: 10
Atmospheric: n/a	Acc/Dec: 3	Cruise: 6
FTL drive type: Tachyon (Type G)		Ly/day: 5ly/day

Life support capacity: 2,000	Sensor suite: Type C	Range: 40au
Power plant type: D	Surplus seu/day: 1,000	Storage capacity: 5,000
Cargo: 1,000 tons		Consumables: 6 months

Crew Complement: 700 crewmen (excellent quality: Initiative +4 Hit: +8 Skill: +6)

Notes: Light Cruisers have become the most common capitol ship seen in the Core and Central star systems in the Frontier. They are crewed by some of the most qualified personnel in Spacefleet and the crewmembers must pass stringent physical and psychological tests to insure that they are not Sathar agents. These heavily armored, well shielded ships have proven themselves in battle against the Sathar, and were instrumental in turning aside the Sathar's

attempt to attack the Central and Core star systems. It is not known if Light Cruisers will be deployed to the Outer systems or the Rim Coalition though if the Sathar continue to threaten these areas the UPF may have no choice but to start deploying these ships there as well.

Like all Frontier military ships, Light Cruisers have reflective hulls (-2 points/die from lasers/-1 point/die from plaslers) and have with damage suppression equipment (-1pt/die damage). Each Light Cruiser has 24 cameras set to view key locations on the ship's hulls, and skin sensors elsewhere to detect enemy attempts to breach the ship's hull. The Light cruiser is heavily armored and has an impressive energy shield, making it quite formidable in combat.

Light cruisers have been designed with two landing bays (one on either side). Each of these bays holds five Assault Scouts, and a squadron of 30 Knight Hawk Star fighters. In external docking blisters surrounding the ships engine pods are six work pods. The Light cruisers have 10 escape pods/level near the ship's airlocks for a total of 50 escape pods.

These Starships have a full communications array including communication jamming, encryption, Interception and shielding, and have a white noise broadcaster. Each Light cruiser has two Tractor beam units one near each docking bay that enables them to immobilize any two ships of up to Huge size, and can draw them to their armored airlocks or landing bays if empty to allow fully armed troops to enter the captured ship.

Wartech's A-28 Medical Frigate

Size: Colossal

Cost: n/a

Combat modifier: +8

HP: 100

Armor: 16

DR: 24

Defenses: Heavy armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plaslers)

Defensive shields: Defensive shield (Type J) **Points/round:** 100 **Maximum points/absorbed:** 400

Weapon: Turbo plaser cannons (4) **Fire Arc:** Swivel mounted (top/bottom) **Range:** 14 **Damage:** 10d10

Engine type: Ion/gravity flux (type F) **Maneuverability:** +2 **Stealth:** 10

Atmospheric: n/a **Acc/Dec:** 3 **Cruise:** 6

FTL drive type: Tachyon (Type G) **Ly/day:** 51y/day

Life support capacity: 2,500 **Sensor suite:** Type C **Range:** 40au

Power plant type: D **Surplus seu/day:** 1,000 **Storage capacity:** 5,000

Cargo: 3,000 tons **Consumables:** 1 year

Crew Complement: 165 crewmen (good quality: Initiative +2 Hit: +4 Skill: +4)

Notes: Wartech designed these Starships to serve as mobile hospitals, and with the threat of war between the frontier and the Sathar these ships have been deployed throughout the Frontier, especially to those areas recovering from the Sathar attacks. These ships are heavily armored and have massive energy shield generators. These ships are built with a reflective hull (-2 points/die from lasers/-1 point/die from plaslers), and each Medical Frigate has damage suppression equipment (-1pt/die damage) to insure the greatest level of protection possible for the sick and wounded that it must care for.

The Medical Frigate has an emergency generator enabling it to run on emergency power for 20 hours. Each Medical Frigate has an emergency beacon and receiver unit in case it needs to send out a distress call, and all starships by law are required to investigate a distress call from a Medical Frigate and offer whatever aid it can. Each Medical Frigate has four tractor beam projectors that can hold immobilized any Large or smaller ship and draw it to itself. The starship has two landing bays one on either side and all its airlocks have telescoping docking tubes that can extend up to 30' to allow medical crews access to other ships. One of the massive hanger bays on a Medical Frigate holds a complement of 4 shuttles that have been converted for medical purposes. The other landing bay has been designed to hold any ship weighing up to 40 tons (Large size).

A Medical Frigate has the equivalent of two hospitals and has a support staff of 300 medical personnel and 38 medical robots. They can treat up to 1,000 patients, and have accommodations for 1,000 in cramped staterooms. Each Medical Frigate has 6 work pods in external docking blisters that are accessible from the engineering section of the ship. They also have 10 escape pods in clearly marked areas level near the Starship's airlocks for a total of 50 escape pods. Each

Medical Frigate has 4 launches in external docking blisters. These launches can carry 4 people and have autoloc capabilities and freeze fields enabling them to carry 4 more wounded passengers.

Heavy Cruiser

Size: Colossal II

Cost: n/a

Combat modifier: +12

HP: 200

Armor: 16

DR: 20

Defenses: Heavy armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasars).

Defensive shields: Defensive shield (Type I) **Points/round:** 50 **Maximum points/absorbed:** 200

Weapon: Assault plaser cannon	Fire Arc: Swivel mounted (top/forward)	Range: 20	Damage: 8d20
Weapon: Turbo laser cannon (3)	Fire Arc: Swivel mounted (rear/top)	Range: 14	Damage: 10d10
Weapon: Plaser battery (4)	Fire Arc: Swivel mounted (side)	Range: 5	Damage: 3d12
Weapon: Electron battery (2)	Fire Arc: Side mounted	Range: 5	Damage: 3d6
Weapon: Proton battery (2)	Fire Arc: Side mounted	Range: 5	Damage: 3d20

Weapon: 6 Rocket batteries	Fire Arc: Swivel mounted (underside)		
Missile type: Rockets (20/battery)		Range: 3	Damage: 1d10

Weapon: Torpedo tubes (8)	Fire Arc: Side mounted (2/side)		
Missile type: Plasma torpedoes (10/launcher)		Range: 10	Damage: 6d6

Engine type: Ion/gravity flux (type F)	Maneuverability: -2	Stealth: 10
Atmospheric: n/a	Acc/Dec: 3	Cruise: 6
FTL drive type: Tachyon (Type G)		Ly/day: 5ly/day

Life support capacity: 2,000	Sensor suite: Type C	Range: 40au
Power plant type: D	Surplus seu/day: 1,000	Storage capacity: 5,000
Cargo: 1,000 tons		Consumables: 6 months

Crew Complement: 1,400 crewmen (excellent quality: Initiative +4 Hit: +8 Skill: +6)

Notes: Heavy cruisers were originally classified as battleships, but with the creation of the new Battleship class Starships these spacecraft have been reclassified as Heavy cruisers. Like most capital ships in the Spacefleet Heavy cruisers are crewed by some of the most qualified personnel in the fleet, and the crews must undergo intense physical and psychological screenings before being considered for a post on one of these ships. These heavily armored, well shielded ships have yet to prove themselves in battle against the Sathar but each major core world has at least one Heavy cruiser in addition to their standard fleet ships to provide them protection from attack, which some say is spreading Spacefleet thin, but many planetary governments are thankful for the added protection.

Heavy Cruisers have two landing bays (one on either side) and each bay holds five Assault Scouts, and a squadron of 60 Knight Hawk Star fighters. There are six work pods in docking blisters that are accessible from the engineering section of the ship, set around the heavily reinforced struts where the ship's engine clusters are located. The ship has an escape pod bay on each of its five levels in a clearly marked area that hold ten escape pods for a total of 50 escape pods/ship.

Like all Spacefleet Military ships, Heavy cruisers have reflective hulls (-2 points/die from lasers/-1 point/die from plasars), with damage suppression equipment (-1pt/die damage) embedded in it. These ships have heavy composite armored hulls, and have reinforced engine cowling.

The Heavy cruiser's communications array has communication jamming, encryption, Interception, and shielding capabilities as well as a white noise broadcaster. Each Heavy cruiser has two Tractor beam units that enable them to immobilize two ships of up to Gargantuan size, and draw them to their armored airlocks. This allows the Cruiser to deploy teams of heavily armed and armored troopers to board the captured ship.

Assault Carrier

Size: Colossal II

Combat modifier: +12

HP: 200

Armor: 16

DR: 25

Defenses: Heavy armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasers)

Defensive shields: Defensive shield (Type I) **Points/round:** 50 **Maximum points/absorbed:** 200

Weapon: Plaser battery (4)

Fire Arc: Swivel mounted (top)

Range: 5 **Damage:** 3d12

Weapon: Proton battery (4)

Fire Arc: Swivel mounted (side)

Range: 5 **Damage:** 3d20

Weapon: 6 Rocket batteries

Fire Arc: Swivel mounted (underside)

Missile type: Rockets (20/battery)

Range: 3 **Damage:** 1d10

Engine type: Ion/gravity flux (type F)

Maneuverability: +3

Stealth: 10

Atmospheric: n/a

Acc/Dec: 3

Cruise: 6

FTL drive type: Tachyon (Type G)

Ly/day: 51y/day

Life support capacity: 2,000

Sensor suite: Type C

Range: 40au

Power plant type: D

Surplus seu/day: 1,000

Storage capacity: 5,000

Cargo: 500 tons

Consumables: 6 months

Crew Complement: 2,000 crewmen (excellent quality: Initiative +4 Hit: +8 Skill: +6)

Notes: Assault carriers serve as mobile bases for fighter squadrons in the Spacefleet. A Carrier transports fighters to the scene of a battle launches them, and after the battle can recover any damaged ships that survived, and can rearm and repair any damaged ships it can salvage. At present there are only eight of these ships and they have been deployed to a specific sector of the Central star systems.

An Assault carrier has four huge docking bays set two on either side of the ship. Three of the docking bays are designed to hold 300 fighter ships while the fourth bay is usually left empty but can hold any ship weighing up to 500 tons (gargantuan size). The Assault carrier holds 1,000 tons of military grade spacecraft equipment and is treated like a mobile shipyard capable of repairing any ship it can house as if it were docked at a construction yard. Most of the Carrier's crew is either fighter pilots or Spacecraft engineers, with whatever support crews are needed to keep the ships it houses in top shape. Each Assault carrier has ten tractor beam units, each one capable of immobilizing a ship of up to Gargantuan size and drawing into one of the ship's cavernous docking bays where it can be repaired.

These Starships are heavily armored, and have good defensive shields to provide them protection after they launch their fighters. Assault Cruisers have reflective hulls (-2 points/die from lasers/-1 point/die from plasers), with damage suppression equipment (-1pt/die damage). The Frontier does not have many of these ships in service relying on its Heavy or Light cruisers to carry fighters into combat, and only in extreme circumstances will they deploy these ships. However the White Light Royal marines are known to have one of these Cruisers and have had to deploy it on at least one occasion in defense of the planet against the Sathar.

The Assault carrier has been outfitted with six work pods in external docking blisters that are accessible from the spacecraft's engineering section. They have clearly marked escape pod bays in each level of the ship near the crew quarters that hold ten escape pods, for a total of 50 escape pods. Like all military ships, an Assault carrier's communications station has communication jamming, encryption, and shielding, and have a white noise broadcaster array.

Battleships

Size: Colossal III

Cost: n/a

Combat modifier: +18

HP: 250

Armor: 17

DR: 24

Defenses: Extremely Heavy armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasers)

Defensive shields: Defensive shield (Class J) **Points/round:** 100 **Maximum points/absorbed:** 400

Weapon: Assault plaser cannon (6) **Fire Arc:** Swivel mounted (top/forward) **Range:** 20 **Damage:** 8d20

Weapon: Plaser battery (8) **Fire Arc:** Side swivel mounted (4/side) **Range:** 5 **Damage:** 3d12

Weapon: Proton battery (4) **Fire Arc:** Swivel mounted (bottom/front) **Range:** 5 **Damage:** 3d20

Weapon: Electron batteries (4) **Fire Arc:** Rear mounted (2/side) **Range:** 5 **Damage:** 3d6

Weapon: Seeker missile launcher (2) **Fire Arc:** Forward firing) **Range:** 5 **Damage:** 2d8

Missile type: Seeker missiles (20 missiles/launcher)

Weapon: Torpedo launcher (16) **Fire Arc:** Side mounted

Missile type: Photon torpedoes (100) **Range:** 10 **Damage:** 6d8

Missile type: Concussion torpedoes (40) **Range:** 10 **Damage:** 3d4

Missile type: Proton torpedoes (20) **Range:** 10 **Damage:** 6d10

Engine type: Hyper magnetic (type F) **Maneuverability:** +0 **Stealth:** 6

Atmospheric: n/a **Acc/Dec:** 3 **Cruise:** 6

FTL drive type: Tachyon (Type H) **Ly/day:** 6ly/day

Life support capacity: 30,000 **Sensor suite:** Type C **Range:** 40au

Power plant type: D **Surplus seu/day:** 1,000 **Storage capacity:** 5,000

Cargo: 5,000 tons **Consumables:** 1 year

Crew Complement: 15,000 (excellent quality: Initiative +4 Hit: +8 Skill: +6)

Notes: These mighty warships in the Frontier fleet and have only recently been commissioned and there are only eight Battleships in active duty with double that number in various stages of construction. One Battleship (The UFS-Challenger) is being prepared for a mission beyond the Frontier to seek out the Sathar home world. Currently one Battleship has been sent to a secret location in each sector of the core, and serves as the flagship for all Task forces in the sector. Only the elite among the Frontier military are considered for positions aboard these ships, and even then each candidate must pass a battery of physical and psychological tests before even being considered for a position onboard one of these vessels.

These massive Starships have extremely heavy armored hulls and sport massive energy shield generators. All Battleships have a reflective hull (-2 points/die from lasers/-1 point/die from plasers), and damage suppression equipment (-1pt/die damage) which make them almost impregnable mobile fortresses.

Each ship has an emergency generator enabling it to run on emergency power for 20 hours, and they have been fitted with one of the most powerful FTL drives currently in use on any Starship enabling them to quickly travel from system to system, as need be. These ships have a full communications array including communication jamming, encryption, interception and shielding, and have a white noise broadcaster array.

Each Battleship has four tractor beam projectors that can hold immobilized any Colossal or smaller ship and draw it to itself either to dock it within one of its four massive landing bays (if its small enough) or to an armored and extending airlock where heavily armed and armored space marines can board the captured ship. Two of the massive hanger bays on a Battleship hold a complement of 300 Knight Hawk Star fighters. The third landing bay houses seven Assault Scouts. The 4th bay has been designed to hold any ship weighing up to 500 tons (Gargantuan size) and is usually kept empty.

A Battleship has several large cargo holds where it stores 2,000 tons of military grade spacecraft equipment which enables the engineering crew of a battleship to repair any ship as if the Battleship were a fully stocked military class shipyard. A Battleship has 12 workpods in six workpod bays on either side of the engineering section near the heavily reinforced struts that hold the battleship's engine clusters. On each of the ship's 5 levels, in clearly marked areas are escape pod bays between the ship's airlocks and crew quarters that house ten escape pods for a total of 50 escape pods/Battleship.

Dreadnaught

Size: Colossal IV

Cost: n/a

Combat modifier: +16

HP: 400

Armor: 17

DR: 24

Defenses: Extremely heavy armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasars)

Defensive shields: Defensive shield (Type K) **Points/round:** 200 **Maximum points/absorbed:** 400

Weapon: Assault plaser cannon (6) **Fire Arc:** Swivel mounted (top/forward) **Range:** 20 **Damage:** 8d20

Weapon: Plaser battery (8) **Fire Arc:** Side swivel mounted (4/side) **Range:** 5 **Damage:** 3d12

Weapon: Proton battery (4) **Fire Arc:** Swivel mounted (bottom/front) **Range:** 5 **Damage:** 3d20

Weapon: Electron batteries (4) **Fire Arc:** Rear mounted (2/side) **Range:** 5 **Damage:** 3d6

Weapon: Pod caster **Fire Arc:** Forward firing

Missile type: Anti-matter pods **Range:** 10 **Damage:** 10d20

Weapon: Seeker missile launcher (2) **Fire Arc:** Forward firing

Missile type: Seeker missiles (20 missiles) **Range:** 5 **Damage:** 2d8

Weapon: Torpedo launcher (16) **Fire Arc:** Side mounted

Missile type: Photon torpedoes (100) **Range:** 10 **Damage:** 6d8

Missile type: Concussion torpedoes (40) **Range:** 10 **Damage:** 3d4

Missile type: Proton torpedoes (20) **Range:** 10 **Damage:** 6d10

Engine type: Hyper magnetic (type F) **Maneuverability:** +0 **Stealth:** 4

Atmospheric: n/a **Acc/Dec:** 3 **Cruise:** 6

FTL drive type: Tachyon (Type H) **Ly/day:** 6ly/day

Life support capacity: 15,000 **Sensor suite:** Type C **Range:** 40au

Power plant type: D **Surplus seu/day:** 1,000 **Storage capacity:** 5,000

Cargo: 5,000 tons **Consumables:** 1 Year

Crew Complement: 1,500 crewmen (excellent quality: Initiative +4 Hit: +8 Skill: +6)

Notes: With the near certainty that the Frontier is standing on the verge of war with the Sathar, has Spacefleet engineers working to complete these monstrous starships. They believe that these massive war machines may prove to be the last line of defense against their enemies. There are currently two of these ships ready for trial runs at a secret Frontier Shipyard and at least 6 other Dreadnaughts are rumored to be in some stage of construction.

Each Dreadnaught is equipped with anti-matter pods which have been outlawed in the Frontier for nearly 100 years and have proven a source of much debate in the Council of Worlds as many of the races fear the moral implications of once again using these weapons in war. These ships have extremely heavy armor, and massive energy shield generators A Dreadnaught has a reflective hull (-2 points/die from lasers/-1 point/die from plasars), and has damage suppression equipment (-1pt/die damage). Dreadnaughts defensive capabilities make them nearly impregnable to attack.

Each Dreadnaught has an emergency generator enabling it to run on emergency power for 20 hours. They have an FTL Drive that makes them as fast than a Battleship and capable of making interstellar voyages in good time. A Dreadnaught has four landing bays that are located two per side of the ship. In two of the Dreadnaught's massive hanger bays the ship houses a complement of 200 standard fighter craft and 200 Knight Hawk Star fighters. The Dreadnaught's third landing bay houses seven Assault scouts, and the fourth landing bay can house any ship that doesn't exceed 500 tons (Gargantuan size) and this bay is generally kept empty.

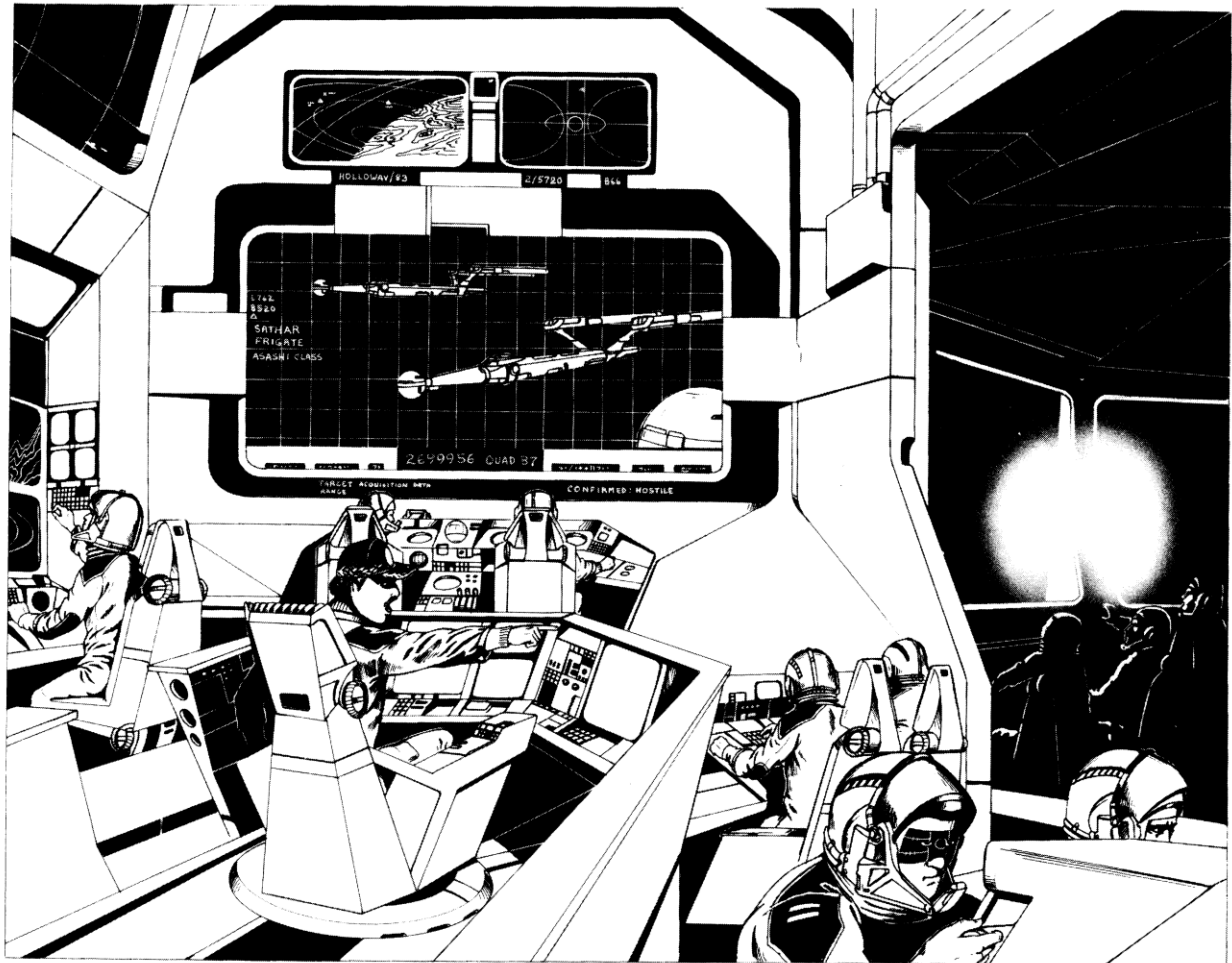
A Dreadnaught has two workpod bays set on each side of the ship's engineering area beside the heavily reinforced struts that hold the ship's engine clusters. Each workpod bay has six workpods in external docking blisters. Near the ship's engineering section the ship has several massive cargo bays that hold a combined 2,000 tons of military grade ship components that enable the Dreadnaught's engineering crews to repair any spaceship docked within the ship as if it were docked at a military level ship yard.

Outside the Dreadnaught on its hull in strategic locations the ship has 12 cameras. That combined with the Dreadnaught's skin sensors allows the Dreadnaught's crew to detect invaders anywhere on the Starship's hull. A Dreadnaught has four tractor beam projectors that can hold immobilized any colossal II or smaller ship and draw it to

itself either to dock it within one of its 4 landing bays (if its small enough) or to an armored and extending airlock where boarding parties can enter the captured ship.

These capital ships have a full communications array including communication jamming, encryption, interception and shielding, and have a white noise broadcaster. The ship has an escape pod bay that holds ten escape pods in clearly marked sections of each deck of the ship near the ship's crew quarters for a total of 50 escape pods.

As Dreadnaughts are the flagships of the UPF Spacefleet only the elite among the UPF Spacefleet are ever considered for positions aboard the ship. Of those candidates, only the ones that have passed a series of stringent psychological and physical examinations are even considered for positions aboard these ships.



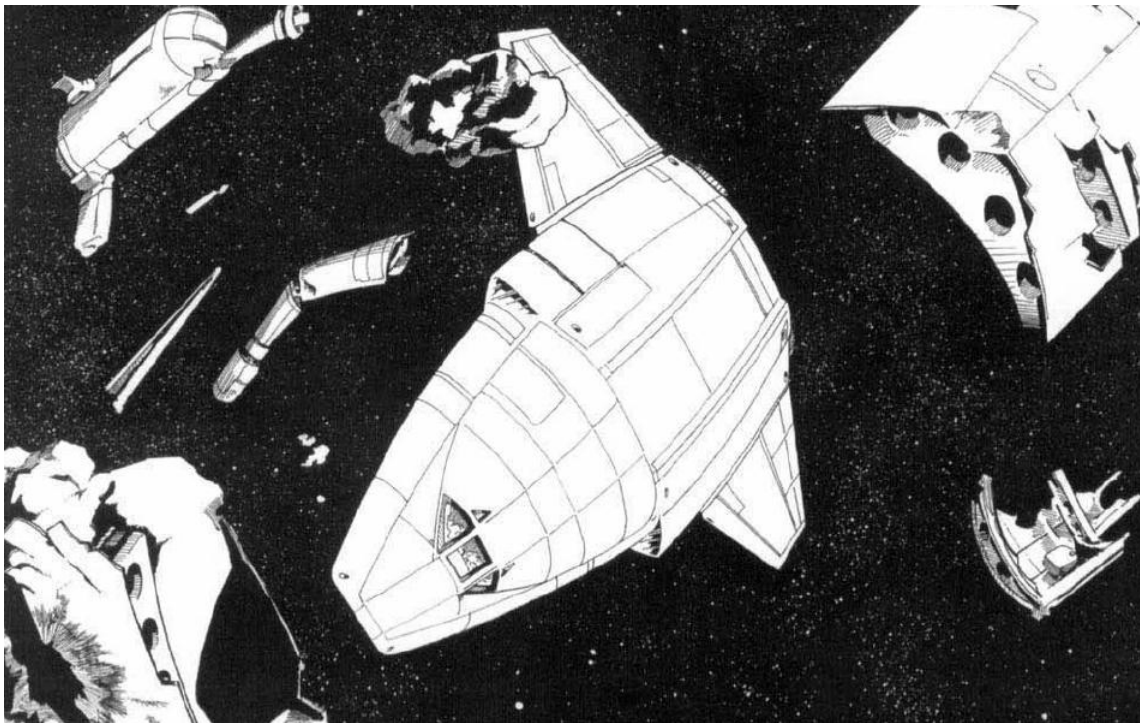
STAR FRONTIERS[®]

Knight Hawks
Administrator's
Section



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Section One: Space Station Construction Rules

Space Station Construction

Designing a Space Station for use in the Frontier is a very straight forward process. Each Space station is defined by a number of factors, including its Size, its Class, as well as its Automation, Life support, Power plant , and Stowage to name a few. An Administrator will find this process nearly identical to building a spacecraft, except that the scale on many things is different. Like building spacecraft each trait that a station possesses has a construction point cost, that determines the amount of resources required for building that part of the station. After determining the total number of construction points spent on designing the Space station an Administrator can determine the Station's base cost.

Although there is no limit to the number of construction points in a Space Station's design, as the number escalates so does the cost of building the Station. It should be noted that a Space Station's size does limit its capabilities. These limitations are given for certain systems in a station are detailed in the description of that system. After a base price has been established it's possible to add other systems such as specific weapons, cloaking devices, and communications gear to the station.

As a practical matter, no Space Station with a total cost greater than 8,000,000cr will ever be built for an individual, although Space Stations manufactured for Mega-Corps, Planetary militias etc. are exempt from these rules. Certain privately owned Space Stations however have been modified extensively bringing their total value way above this construction cap.

Space Station size and Classification

The first fact that must be decided when designing a space station is its size. The following table shows the standard sizes and classes based on a Space Station's Diameter and approximate mass. It should be noted that Diameter refers to a space Station's outer ring. There are four major classes of Space station: Commercial, Construction, Military, and Scientific but each class can be divided into subclasses as needed.

Because larger Space Stations take more time to build than smaller ones they cost considerably more construction points. The cost represents the expense of laying down the basic frame of the Space station. Additional construction points are spent later for the Station's complete superstructure. Like a spacecraft a Space Station's armor rating is a function of its total frame strength and mass and thus is based on its size.

A Space station needs at least 10 points of armor to be space worthy. The Station's armor rating reduces damage taken by the station from non-starship weapons (personal and vehicle mounted weapons) by 10 points, and reduces damage from spacecraft weapons by -1 point. Most civilian space stations don't incorporate extra armor, and only military class space stations can be designed and built with heavy armor or better.

Size	Stealth Rating	Max Diameter	Max Weight	DR	Station Armor	Construction Points	Class
Small	+8	300'	100 tons	10	10	3	Scientific
Medium	+6	600'	200 tons	10	10	12	Scientific
Large	+4	1,200'	400 tons	10	10	24	Commercial
Huge	+2	2,500'	1,000 tons	10	10	48	Commercial
Gargantuan	+1	5,000'	4,000 tons	10	10	100	Commercial
Colossal	+0	10,000'	10,000 tons	10	10	150	Construction
Colossal II	-2	15,000'	100,000 tons	8	10	200	Construction
Colossal III	-4	30,000'	1,000,000 tons	6	10	250	Military
Colossal IV	-6	60,000'	10 million tons	4	10	300	Military
Colossal V	-8	120,000'	100 million tons	2	10	400	Military
Colossal VI	-10	250,000'	200 million tons	0	10	500	Military
Colossal VII	-12	500,000'	1 billion tons	-2	10	1,000	Military

Superstructure

A Space Station's superstructure includes its bulkheads, bracing, deck plates and dozens of other components designed to give its frame structural strength. The stronger a Station's superstructure the more hull points the Station has. Smaller Space stations have less resilient superstructures than larger stations. Larger Space Stations must have a minimum amount of bracing to survive the rigors of space.

Size	Hull Points	Endurance Points*	Construction Points
Small	20	200	1
Medium	40	400	2
Large	60	600	5
Huge	100	1,000	10
Gargantuan	140	1,400	20
Colossal	180	1,800	40
Colossal II	200	2,000	80
Colossal III	300	3,000	160
Colossal IV	400	4,000	200
Colossal V	600	6,000	300
Colossal VI	800	8,000	400
Colossal VII	1,600	16,000	800

* The Endurance point listing is for use when hand held, or vehicle mounted weapons are used against A Space station.

It should be noted that Space stations under normal circumstances cannot enter or land on a planet because they are not designed to handle the stress of a planet's gravity and atmosphere, nor do they have a propulsion system to allow them to travel within space, or within a planetary atmosphere.

Automation

A Station's Automation trait determines how large a crew is needed to run it. Small Stations that don't have space for large crews must include extensive automation to enable a few people to do everything. Larger Space stations don't need as much automation, and due to their vast size and extensive technical needs they actually can't automate all their functions. Some Space stations try to reduce crew minimums even further by depending on robots to perform tasks usually reserved to living beings.

Minimum Crew	Station size Restriction	Construction Points
0	Small	10
1-10	Small	10
2-20	Medium	9
20-40	Medium	8
40-80	Medium, Large	7
100-1,000	Medium, Large, Huge	6
1,000-4,000	Medium, Large, Huge, or Gargantuan	5
4,000-8,000	Large, Huge, or Gargantuan	4
8,000-16,000	Large, Huge, Gargantuan, Colossal	3
16,000-32,000	Large, Huge, Gargantuan, Colossal	2
32,000-60,000	Gargantuan or Colossal	1
60,001-120, 000	Colossal	0

Power plant

Space stations require a power plant to generate and regulate the energy needed to power all the station's systems. Generally a Space station's Power plant produces enough power to not only power all the station's systems, but produces a surplus of energy/day that can either be stored in the Power plant's capacitors or can be used to power equipment that is not essential to the operation of the station, such as power batteries, weapons, Robots etc. Each space station also has an emergency power generator that kicks in if the Primary power plant has been damaged. This back-up generator can provide power to the Station 20 hours, worth of power/size of the Station but only allows the use of the Station's sensors, and maintain life support. It cannot power the station's weapons, artificial gravity, or defenses. Power plants come in a variety of types and have attributes as shown below:

Power Plant types

Type	Minimum Station size	Surplus Seu/day	Storage capacity	Construction Points
Type A	Small	500seu	1,000seu	2
Type B	Medium	1,000seu	5,000seu	4

Type	Minimum Station size	Surplus Seu/day	Storage capacity	Construction Points
Type C	Large	5,000seu	10,000seu	8
Type D	Huge	10,000seu	50,000seu	16
Type E	Gargantuan	50,000seu	100,000seu	32

Life Support

A Space station's Life support trait determines how many beings it can sustain. In addition to the crew, its life support must cover any troops, prisoners or passengers the Station is designed to hold. Typical accommodations for such individuals are included in the base construction cost of life support. In an emergency a Space station can manage to carry up to double its maximum sustainable personnel for a short period of time, but risks damaging its life support systems when doing so.

Living beings can be stored in cargo bays, but this poses a danger since cargo areas are not designed to support life and cannot do so for more than a few hours. Living creatures should only be placed in a Station's cargo hold in dire circumstances.

Maximum Sustainable Personnel	Station size Restriction	Construction Points
0	Small	0
1-10	Small	1
2-20	Medium	4
20-40	Medium	6
40-80	Medium, Large	8
100-1,000	Medium, Large, Huge	10
1,000-4000	Medium, Large, Huge, or Gargantuan	20
4,000-8,000	Large, Huge, or Gargantuan	30
8,000-16,000	Large, Huge, Gargantuan, Colossal	35
16,000-32,000	Large, Huge, Gargantuan, Colossal	40
32,000-60,000	Gargantuan or Colossal	45
60,000-120,000	Colossal	50

Consumables

The consumables trait determines how long a Station can support its personnel before it needs to take on additional supplies. Smaller Stations can only carry a limited supply of consumables, while larger Space stations are equipped with hydroponics facilities allowing them to spend months, or even years in deep space before they need to resupply. Although it is possible to create a Space station with only one week of consumables such a Station would spend so much time being resupplied that it would be useless for just about anything.

Station size Restriction	Consumables Duration	Construction Points	Station size Restriction	Consumables Duration	Construction Points
Any size	1 day	0	Small or Greater	6 months	9
Any size	2 days	1	Medium or Greater	9 months	10
Any size	3 days	2	Medium or Greater	1 year	11
Any size	1 week	3	Medium or Greater	1.5 years	12
Any size	2 weeks	4	Medium or Greater	2 years	13
Small or Greater	3 weeks	5	Medium or Greater	3 years	14
Small or Greater	1 month	6	Large or Greater	4 years	15
Small or Greater	2 months	7	Large or Greater	5 years	16
Small or Greater	3 months	8	Large or Greater	6 years	17

Stowage

A Space station's stowage system allows it to load and carry cargo. A Station's stowage trait reflects the size of its cargo hold and other storage spaces. The more extensive a Space station's stowage systems are the more cargo it can carry safely.

Military Space stations use their stowage systems for wings of fighters and planetary landing craft. No more than half the Space station's total cargo capacity can be used for vehicles or other ships. Also a Station may only house a vehicle that is at least one size category smaller than its classification. To determine how much cargo capacity is needed to

carry a vehicle or ship, compare its size. To calculate the cargo space required use the maximum mass listed for a space craft of that size.

Space Station size Restriction	Cargo Capacity	Construction Points
Small	1-50lbs	1
Small	51-250lbs	2
Small	251-1,000lbs	3
Small, Medium, Large	1001lbs-1 ton	4
Small, Medium, Large, Huge	1.1 ton-50 tons	5
Small or Greater	51-100 tons	7
Small or Greater	101-150 tons	11
Small or Greater	151-200 tons	15
Medium or Greater	201-500 tons	20
Medium or Greater	501-1,000 tons	25
Medium or Greater	1,001-5,000 tons	30
Medium or Greater	5,001-20,000 tons	35
Medium or Greater	20,001-35,000 tons	45
Medium or Greater	35,001-50,000 tons	55
Medium or Greater	50,001-65,000 tons	65
Medium or Greater	65,001-80,000 tons	75
Medium or Greater	80,001-100,000 tons	85

Maneuverability Thrusters

Unlike spacecraft space stations are commonly designed to stay in a fixed orbit around a planetary body, or in the case of a deep space station to stay at a fixed position. Older space stations spin at a certain rate to simulate gravity for the occupants of the station, but with the advent of Artificial gravity, that is no longer the case. Most station designers however still use the old method of creating gravity on a station because the cost of including artificial gravity in a stations living sections is very expensive, and can easily accomplished at little or no charge.

Stations can be fitted with massive chemical thrusters set about the ring of the station. The engines can be fired from the station's command deck in order to move the station or adjust the Station's rotation. This is often employed to move a station out of harms way so long as the station has ample warning of the impending danger. A station's thrusters can be fired to produce enough thrust to move the station at a speed of 60' per turn/burst of fuel used. In order to stop the station from moving an exact amount of bursts as were used to move the station must be employed +1 additional burst to correct the spin of the station. Each station's thrusters can be fired twenty times before needing to be refueled at a cost of 10,000cr/size of the station.

It should be noted that once the thrusters are fired it takes time for them to be turned to be fired in the opposite direction to slow down the station and correct its spin. It takes one hour/size of the station to reposition and recalibrate the thrusters of the station, before they can be used to slow down, and readjust the stations spin. Adding a set of thrusters to a Space station uses up 10 weapon emplacement points/size of the station.

Defensive Shields

A Space station's shield generators form a protective field of energy that protects the Station from energy and physical damage. A shield has two numbers. The first number is the amount of damage it can absorb in a round before it is breached (meaning it stops providing protection for the remainder of the round, but at the beginning of the following round it is able to absorb more damage) and the second number is the total number of points it can absorb before the shield drops completely, being unable to generate defensive energy until it is recharged or repaired.

On smaller Stations there is a limit to the strength of the shield generator, and though it is possible to overcome this limit by mounting multiple shield generators, doing so is expensive, and takes up a lot of space and power thus doubling the number of construction points required/additional shield generator.

Military grade shield generators are generally limited to Space stations authorized to mount them by government permission. A few Space stations mount back-up shield generators. These recover shield points at twice the normal rate.

Type	Size Restriction	Damage Absorbed per turn	Maximum points Absorbed	Construction Points
Class A	None	2	10	1
Class B	None	5	20	2
Class C	Small or greater	10	40	4
Class D	Medium or greater	15	60	8
Class E	Medium or greater	20	80	10
Class F	Large or greater	25	100	20
Class G	Large or greater	30	120	30
Class H	Huge or greater	40	160	40
Class I	Huge or greater	50	200	80
Class J	Gargantuan or greater	100	400	160
Class K	Gargantuan or greater	200	400	320



Weapon Suite

A Space station's weapon suite trait defines the total number of weapon emplacement points it can mount. This system is an abstract way to determine how many weapons a Space station can have without defining how much weight and mass each weapon displaces. Emplacement points cover more than just space. Factors such as power requirements, bracing, stress and targeting computer capacity are all included in a weapon's emplacement cost.

Many weapon systems are designed for Space stations of a specific class. Placing one of these systems on a smaller Station requires additional bracing, more power, and larger redesign requirements. Thus some weapons cost double the

listed emplacement points when installed on smaller class of Station.

Medium size and greater Space stations cannot have more than half their total emplacement points taken up by weapons in the same firing arc. Medium Stations are limited by having a maximum number of weapons in the same firing arc equal to 1/4th their total emplacement points.

It should be noted that the damage listed for a Space stations weapons is the amount of damage that the station causes to space craft, space objects (such as asteroids) or other space stations. The damage is multiplied by x10 if applied to people or non-space vehicles.

Station Size Restriction	Emplacement Points		Construction Point
	Civilian	Military	Cost
None	0	0	0
Small	4	8	1
Medium	20	40	4
Large	40	80	8
Huge	60	120	16
Gargantuan	80	160	32
Colossal	100	200	64
Colossal I	120	400	128
Colossal II	150	600	256
Colossal III	200	800	512
Colossal IV	n/a	1,000	1,024
Colossal V	n/a	2,000	1,048
Colossal VI	n/a	3,000	2,096
Colossal VII	n/a	4,000	4,192

Determining Base Cost

Once you have determined the number of construction points of the space station up to this point allowing the administrator to determine the base cost of the station up to this point. To determine the cost per construction point, cross-reference the size of the Station on the table below. It should be noted that specific equipment such as actual weapons, cloaking devices, or sensors are applied separately after the Space station's base cost has been determined.

Station Size	Construction point Cost	Station Size	Construction point Cost
Small	10,000cr	Colossal IV	140,000cr
Medium, Large, Huge	20,000cr	Colossal V	160,000cr
Gargantuan, Colossal	50,000cr	Colossal VI	200,000cr
Colossal II	100,000cr	Colossal VII	200,000cr
Colossal III	120,000cr		

It should be noted that characters desiring a permit to build certain sized Space stations may do so by signing a charter with a Mega-corporation. Charters usually mean that the Station will be registered as company property until the characters pay a certain amount of money with interest, or serve as company representatives for several years. The company will supply the permit, and will pay up to ½ the Station's cost, but will require that the company logo be emblazoned in plain sight on the Station, and the characters must wear company uniforms. Other concessions might be for company security safeguards, company security guards to be posted on the Station, or anything the company feels is appropriate dependent on the reputation of the characters they are dealing with.

Specialized Systems

Once the Space Station's basic structure has been determined the characters can concentrate on buying specialized equipment, which will determine what kind of Station they have built. Will it be a Trade station, or a Scientific Research lab? Will it have a med bay, or an auto doc, and what weapons if any will be mounted on the Station? All these systems fall under the heading of specialized equipment.

Artificial Gravity Generator

Perhaps the most taken-for-granted technology that can be incorporated into the creation of Space stations in the Frontier, Artificial gravity generators are tied to micro-circuitry throughout a Space station and generates a constant

field of gravity that allows characters to move comfortably within a Space station. Older Stations relied on the rotation of the hub to create gravity within the ring, but with the advent of artificial gravity Stations no longer have to rotate and in fact no longer have to be built around a central hub, giving rise to the “flying pill box” design that many newer Stations have taken.

Unless stated by the Station’s commanding officer upon creation of his Station, all Space stations have a standard gravity of 1g throughout. Some Trade stations though have lower gravity in their cargo holds, to lessen the weight of cargo they have stored, which does not affect its mass, or allows more cargo than listed but it makes it easier for the cargo to be moved on and off the Station. Adding Artificial gravity generators to a space station increases a Stations base cost by +20%.

Communication Equipment

All Space Stations are equipped with two basic communications systems: Speed of light coms and Subspace radios. These two systems are included in new Stations at no extra cost. Speed of light communicators are short range devices designed to allow for communications within a star system and are generally used for ship-to Station, or Station to ground communications. Speed of light communicators on a space station are larger and more powerful than those used on a spaceship, and have an effective range of 100au (roughly 9,300,000,000 miles) They are often linked to a Station’s intercom system and can send messages to individual comlinks. Many older SL coms are designed only for audio signals, while newer models have video, or holo-vid capabilities.

Subspace radios however can send audio, video, and hologram communications over a range of a few dozen light years by transmitting a communications burst via a tachyon stream through Void space. The tachyon beam suffers from dispersal after roughly 24 light years, and completely disperses after 36 light years. This generally allows for communications between a starship and people at its destination and is used to receive news and weather reports before the ship arrives as most civilized systems have trade satellites in orbit around them that transmit signals via Void space giving approaching ships news and information they may find useful before they arrive. Most ships use the beacon function on their ships to send distress signals, or emergency warnings.

Main Computer

All Space Stations have a central computer which performs hundreds of tasks in order to make the Space station function. This central computer is a level six computer. The computer’s sole function is maintaining the Station’s systems. It regulates the Space station’s power distribution, monitors the power plant and maintains the Station’s life support, as well as performs such minor tasks as controlling the Station’s lighting and running diagnostics on all systems. This is a 6th level maxiprogram, that leaves 30 levels of maxiprograms open for customization by the Station’s Commander. The Station’s main computer is counted as part of the cost of the Space station, so it has no listed cost, though additional programs must be purchased.

Escape Pods

Escape pods are single use sub light craft used to carry a number of passengers away from a Space station in distress to safety. Each escape pod can carry up to 6 passengers/crewmembers in cramped conditions away from a Space station. An escape pod does not add to the Station’s overall cost, but takes up ½ a weapon emplacement point/pod. Escape pods have the following Stats:

Escape Pod

Size: Large Vehicle

Cost: n/a

Combat modifier: +0

EP: 70

Hardness: 8/Acid

DR: 9

Defenses: none

Slow: 750mph

Cruise: 1,500mph

Fast: 3,750mph

Top Speed: escape velocity

Handling: -1

Stealth: 9

Fuel: 1 hour of continuous thrust

Stations: 1 pilot

Cargo: 200lbs

Notes: Escape pods are launched from a Space craft or Station towards a nearby planet, space station or ship and the pilot has only limited control allowing him to make minor adjustments such as slowing the craft down when it enters a planet's atmosphere or steering it away from an obstacle. Pods carry automated emergency beacons that broadcast continually in all directions once the pod is launched. These beacons however can be turned on or off manually by the pilot of the pod. The beacon has a range of 10 au (about 930 million miles) and will transmit a signal for decades as it uses up very little power from the pod's power plant. An escape pod has an effective range of 20 million miles (travelling 1 million miles/hour) its life support will support 6 people for 2 days. And has the equivalent of 6 field kits, and 2 full med kits onboard.



Sensor Baffling technology

Though Illegal throughout the Frontier for civilian Space stations to have this technology, some scientific Space stations are given waivers to have this technology if the station is doing research on a planet who's level of development has not reached the level of the Frontier. Many military surveillance stations along the demilitarized zones surrounding the various non-allied empires and the Frontier also depend on this technology in their efforts to gather information about the activities of potential enemies of the UPF.

It is rumored that the Malthar and the syndicate both have stations that traffic in cargoes or entertainments that are less than legal and have chosen to pay exorbitant prices to install sensor baffling shielding to their Space stations in an effort to keep out Star Law's prying eyes. Sensor baffling increases the difficulty of spot checks using a ship's sensors to detect a "cloaked Station", and has the added effect of making the Station harder to lock on by an enemy ship's targeting system. Sensor Baffling is listed in the list for Station Modifications equipment at the end of this section.

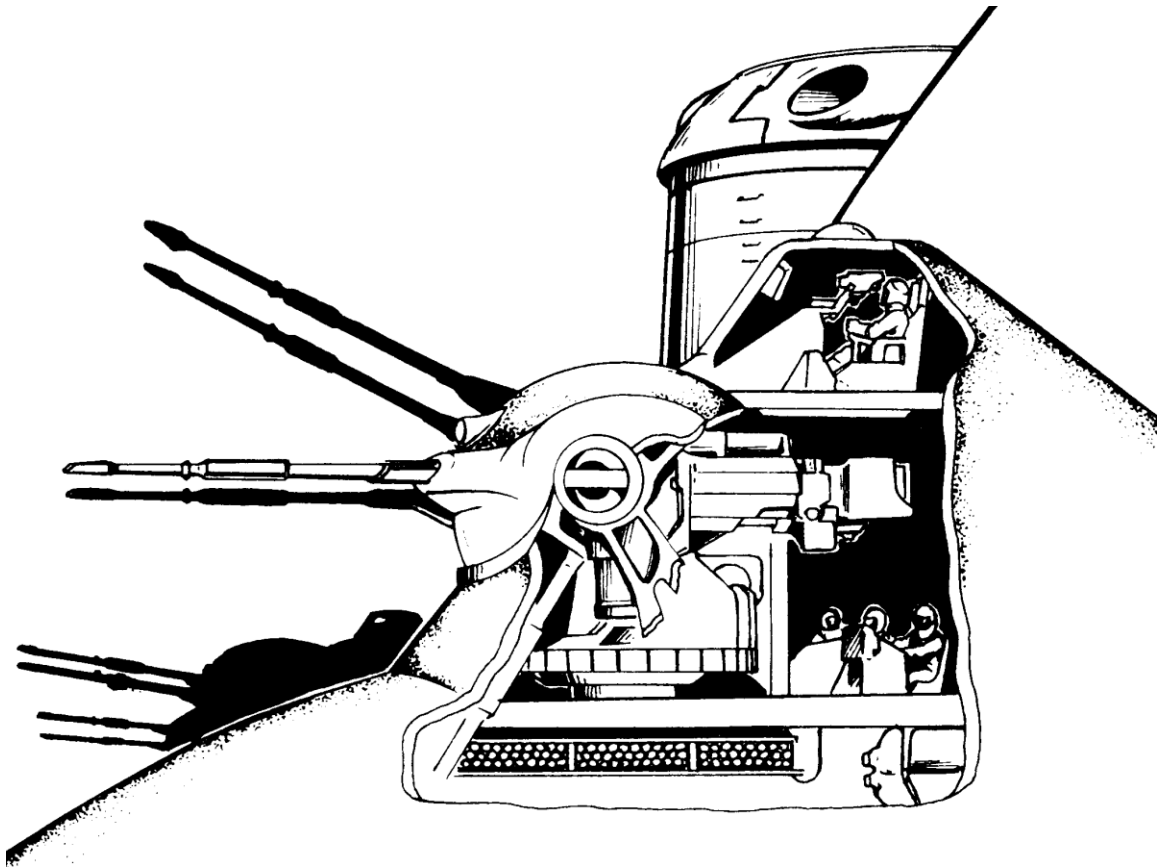
Tractor Beam Projector

A Tractor beam projector takes up two Weapon emplacement points on a Space station and creates invisible beams of energy that can immobilize and draw objects to the station. Most Space stations have several Tractor beam units mounted on their hull allowing them to move and maneuver tons of cargo from the Station to waiting freighters or occasionally to use to recover damaged ships. Tractor Beams are generally not effective against small ships because

they have rudimentary targeting systems and can't lock onto such fast and maneuverable targets.

Usually a tractor beam unit is built next to an airlock, or docking bay to allow crews to board vessels that have been drawn in by the tractor beam or to move cargo that has been brought to the station. Because of their large size and great energy requirements Tractor beam units are rarely used on any Space station of Medium size or smaller.

A Space Station's tractor beam has a range of 10 (60,000 feet) and can immobilize and draw in any ship with a size class up to one Class lower than the Station's size designation but not smaller than 4 size categories smaller than its designation. This means that a Colossal sized Station can immobilize and draw in any Spaceship of Gargantuan size or smaller, but not a ship of Medium size or Smaller, since its tractor beam can't target something of that size.



Fire-linking weapons

Stations that have more than one weapon of the same type with the same fire arc may choose to add a fire-linking program to their targeting computer and because the fire linked weapons use the same targeting computer and power source each weapon linked beyond the first only uses up one additional emplacement point/weapon. The benefits of fire linking a weapon is that it increases the damage die used on a successful hit by one class, so that a weapon that uses 6 sided dice would be increased to 8 sided dice if the weapons were fire linked, etc.

Point defense weapons

Because Space stations are vulnerable to fighter sized ships which they cannot target with their massive weapons, the Station may choose to add smaller versions of weapons, approximately the size of weapons designed for medium sized spacecraft. These weapons cost 2 less emplacement points (minimum 1 emplacement point), but their range is reduced to ½ normal since they drain so little power off of the Station's power plant.

Weapon Systems

Space stations can be fitted with a wide variety of weapons as shown on the table below:

PGS Weapon Systems

Weapon	Minimum Size	Emplacement Points	Range	Damage	Cost
Missile battery					
10 missiles	Small	1	10	4d8	20,000cr
20 missiles	Medium	2	10	4d8	24,000cr
40 missiles	Large	2	10	4d8	28,000cr
Rocket battery					
10 rockets	Small	1	6	2d10	16,000cr
20 rockets	Medium	1	6	2d10	20,000cr
40 rockets	Large	2	6	2d10	24,000cr

Missile Weapon Systems

Weapon	Minimum Size	Emplacement Points	Range	Damage	Cost
Assault rocket launcher-					
Assault rocket	Small	1	10	6d10	20,000cr
Mine launcher-					
10 mine	Small	2	1**	4d8	4,000cr
20 mines	Medium	4	1**	4d8	8,000cr
40 mines	Medium	4	1**	4d8	16,000cr
Missile launcher-					
10 missile	Small	1	10	4d10	4,000cr
20 missiles	Medium	1	10	4d10	8,000cr
40 missiles	Large	2	10	4d10	16,000cr
Rocket launcher-					
10 rocket	Small	1	6	2d12	2,000cr
20 rockets	Small	1	6	2d12	4,000cr
10 rockets	Medium	1	6	2d12	10,000cr
Seeker missile launcher-					
Seeker missile***	Small	1	10	3d10	60,000cr
10 missiles	Medium	1	10	3d10	100,000cr
20 missiles	Large	2	10	3d10	150,000cr
Seismic mine launcher-					
10 mine	Small	2	4**	4d12	8,000cr
20 mines	Medium	4	4**	4d12	16,000cr
40 mines	Medium	4	4**	4d12	32,000cr
Pod Caster-					
Antimatter					
10 pods	Large	5	20	20d20	2,000,000cr****
20 pods	Huge	10	20	20d20	4,000,000cr****
Plasma					
10 pods	Medium	4	20	10d6	16,000cr
20 pods	Large	6	20	10d6	32,000cr
Torpedo launcher*-					
Concussion					
Small	Small	2	20	6d6	8,000cr
10 missiles	Medium	4	20	6d6	16,000cr
20 missiles	Large	6	20	6d6	32,000cr
Ion Torpedo	Medium	2	10	6d8	10,000cr
10 missiles	Medium	4	20	6d8	20,000cr
20 missiles	Large	6	20	6d8	40,000cr
Plasma torpedo	Medium	2	20	12d8	12,000cr
10 missiles	Medium	4	20	12d8	16,000cr
20 missiles	Large	6	20	12d8	32,000cr

Weapon	Minimum Size	Emplacement Points	Range	Damage	Cost
Photon torpedo	Medium	2	20	12d10	16,000cr
5 missiles	Medium	4	20	12d10	32,000cr
10 missiles	Large	6	20	12d10	64,000cr
Proton Torpedo	Small	2	20	12d12	20,000cr
5 missiles	Medium	4	20	12d12	40,000cr
10 missiles	Large	6	20	12d12	80,000cr

* A Space station can carry 5 torpedoes per emplacement point if small +5 additional torpedoes per size category above small.

** Each mine senses objects within this range and if an object enters its range it discharges.

*** Each seeker missile adds +4 to the gunners chance to hit a target.

**** Possession of these weapons by non-military Space stations is highly illegal.

Beam Weapon Systems

Weapon	Minimum Size	Emplacement Points	Range	Damage	Cost
Disruptor-					
Battery	Small	2	10	3d10	25,000cr
Cannon	Medium	2	14	4d10	28,000cr
Projector	Small	1	10	2d10	32,000cr
Electron-					
Battery	Small	2	10	3d6	20,000cr
Cannon	Small	2	14	4d6	22,000cr
Projector	Small	1	6	2d6	15,000cr
Force-					
Battery	Small	2	10	3d8	22,000cr
Cannon	Medium	2	14	4d8	25,000cr
Projector	Small	1	10	2d8	18,000cr
Ion-					
Battery	Large	4	20	12d8	50,000cr
Cannon	Large	8	28	12d10	60,000cr
Laser-					
Battery	Small	2	10	6d12	44,000cr
Cannon					
Light	Medium	2	16	8d10	50,000cr
Standard	Medium	4	20	12d10	56,000cr
Heavy	Large	8	28	16d10	64,000cr
Turbo	Large	8	28	20d10	80,000cr
Quad	Large	8	24	16d12	70,000cr
Assault	Huge	10	40	16d12	100,000cr
Projector	Small	1	10	4d10	40,000cr
Twin projector	Small	2	10	4d12	45,000c5
Microwave-					
Battery	Small	2	4	4d10	24,000cr
Cannon	Small	2	8	6d10	28,000cr
Projector	Small	1	4	2d10	10,000cr
Plaser-					
Battery	Small	2	10	6d12	50,000cr
Cannon					
Light	Medium	2	16	8d12	56,000cr
Standard	Medium	4	20	12d12	61,000cr
Heavy	Large	8	28	16d12	70,000cr
Turbo	Large	8	28	20d12	85,000cr
Quad	Large	8	24	16d12	76,000cr
Assault	Huge	10	40	16d20	150,000cr
Projector	Small	1	10	4d12	40,000cr
Twin projector	Small	2	10	6d12	45,000cr

Weapon	Minimum Size	Emplacement Points	Range	Damage	Cost
Plasma-					
Battery	Small	2	10	6d12	44,000cr
Cannon					
Light	Medium	2	16	10d10	50,000cr
Standard	Large	4	20	12d10	56,000cr
Heavy	Large	8	28	16d10	64,000cr
Turbo	Large	8	28	20d10	80,000cr
Quad	Large	8	24	16d12	70,000cr
Assault	Huge	10	40	20d12	100,000cr
Projector	Small	1	10	4d10	40,000cr
Twin projector	Small	2	10	6d10	44,000cr
Proton					
Battery	Small	2	10	6d20	56,000cr
Cannon					
Light	Small	2	16	8d12	60,000cr
Standard	Medium	4	20	12d12	65,000cr
Heavy	Large	8	28	16d12	75,000cr
Turbo	Large	8	28	20d12	90,000cr
Quad	Large	8	24	16d20	80,000cr
Assault	Huge	10	40	20d20	160,000cr
Projector	Small	1	10	4d12	45,000cr
Twin projector	Small	2	10	6d12	50,000cr

Modifying Space Stations

Space stations can be modified by using the Modification Skill, or by adding equipment to the Space station. Common Equipment that can be added to a Space station include, but are not limited to adding defensive shielding, adding sensors, Emergency equipment, etc. Below are listed various modification packages that can be purchased for a Space station:

Item/ Package	Install DC	Range	Notes	Cost
Armor coat-				
Duroplas	10	n/a	+2 to DR, +1 Armor	2,000cr*
Duralloy	10	n/a	+4 to DR +2 Armor	4,000cr*
Hypersteel	10	n/a	+6 to DR +3 Armor	8,000cr*
Reflective paint	10	n/a	-2/die from lasers -1/die from plasars	8,000cr*
Armor plating-				
Light	15	n/a	+8 to DR +4 armor	16,000cr*
Medium	15	n/a	+10 to DR +5 armor	32,000cr*
Heavy	15	n/a	+12 to DR +6 armor	64,000cr*
Extremely heavy	18	n/a	+14 to DR +7 armor	128,000cr*
Auto doc unit	20	n/a	See Equipment listing	60,000cr
Communication				
Encryption unit	18	n/a	+4 to decipher script difficulty to decode transmissions	40,000cr
Communications				
interception unit	18	20au	DC 15 to intercept standard communication, or DC 25 for shielded	100,000cr
Communication jamming unit	18	5	Negates all non-shielded communications	50,000cr
Communication shielding	18	n/a	50% chance of negating communication Jamming	65,000cr
Damage suppression system	18	n/a	-1/die of damage (Minimum 1pt)	20,000cr
Emergency beacon/receiver	15	20au	A beacon can transmit continually for 2 decades	4,000cr
Emergency power system	18	n/a	Supports station systems for 20 hours	20,000cr
Heads up display	16	n/a	Liquid crystal viewport/canopy display	1,000cr
Maneuverability Jets				
+2	15	n/a	+0 to Defensive rating	8,000cr
+4	18	n/a	+2 to Defensive rating	16,000cr
+6	20	n/a	+3 to Defensive rating	32,000cr
+8	20	n/a	+4 to Defensive rating	64,000cr

Item/ Package	Install DC	Range	Notes	Cost
Reinforced construction				
+10 Hull points	15	n/a		4,000cr*
+20 Hull points	15	n/a		8,000cr*
+40 Hull points	15	n/a		16,000cr*
Sensor Suite	18	20	As equipment sensor	
Type A	20	100au		200,000cr
Type B	25	200au		400,000cr
Type C	30	400au		800,000cr
Skin sensors	20	n/a	Sounds alert if object comes in contact with the hull	8,000cr*
Stealth module				
+2	20	n/a	-2 to hit Space station	100,000cr*
+4	20	n/a	-4 to hit Space station	200,000cr*
+6	25	n/a	-6 to hit Space station	400,000cr*
Aldorian Stealth Cloak (+8)	30	n/a	-8 to hit Space station	800,000cr**
Targeting Computer				
Mark A	18	n/a	+2 to attack	10,000cr
Mark B	18	n/a	+4 to attack	20,000cr
Mark C	20	n/a	+6 to attack	40,000cr
Mark D	20	n/a	+8 to attack	80,000cr
Mark E	20	n/a	+10 to attack	160,000cr
Weapon mount		as weapon		
Fixed mount	10		Side mounted	+200cr*
Forward firing	15		+2 to hit	1,000cr*
Swivel mount	18		180 degree arc	4,000cr*

* Multiplied by Space station size as follows: Medium x3, Large x4, Huge x5, Gargantuan x6, Colossal x7, Colossal I x8, Colossal II x9, Colossal III x10, Colossal IV x11, Colossal V x12, Colossal VI x13

** Cost represents the cost to include one on an Aldorian space station. Cost can be up to 100 times more on the black market for non-Aldorians to purchase this device.

Miscellaneous Space station components

Once you have determined the critical parts of a Space station, the Administrator may wish to spend some time purchasing standardized components to complete his station. The following list gives price listings for many common compartment packages:

Space station Compartments

Compartment	Effect	Construction Point cost
Airlock	Protected entry hatch into station with decontamination unit	2
Armory	Weapon storage for crewmen holds 200kg/station size	6
Bridge	Command center has 8 crew stations + captain's station	4
Brig	Cells holds 20 prisoners/ station's size (DC 25 to open locks)	5
Cockpit	One or two station versions available	2
Computer station	Access to ship's main computer has 5 station/Station size	3
Crew Quarters	Standard accommodations for 10 crewmen/Space station size	2
Cryogenics bay	Holds 20 Cryogenics units	10
Engineering bay	+4 to all engineering related skill checks	10
Entertainment bay-		
Holo-projection bay	Holds 10 crewmen per Space station size	5
Holo-stadium	Holds 50 crewmen per Space station size	10
Standard	Holographic and standard entertainment for 50 crewmen	4
Galley	Kitchen and seating for 10 crewmen per space station size	6
Gunnery station	gunnery station handles 1 ship weapon system	2
Hanger bay	Holds vehicles/space craft whose weight doesn't exceed Cargo tonnage displaced or is bigger than 2 ship sizes less Then the Space station's size	10
Head	Washroom facilities for 20 crewmen/space station's size	1
Hydroponics bay	Feeds 20 crewmen per Space station's size	20

Compartment	Effect	Construction Point cost
Laboratory	+4 to all scientific skill rolls	15
Med lab	+4 to heal skill roll and healing is as in a hospital	15
Machine room	+2 to Craft, Jury rig, Kitbash, Modification, and repair	15
Office	Office and meeting room for 10 crewmembers/Station's size	2
Recycler unit	+2 to repair skill for having materials on hand	4
Labor Pool	Maintenance equipment for 5 robots per Space station's size	1
Laundry	Washing and drying facilities for clothing of 20 crewmen/ Space station's size	1
Onboard Refinery	Prepares 5 tons of raw material/Station's size per hour for sale, but produces 1 ton of waste/hour of use	10
Staterooms-		
First class	Accommodations for up to 10	5
Luxury	Accommodations for up to 20	5
Standard	Accommodations for 40 passengers	3
Steerage	Accommodations for 80 passengers	2
Storage-		
Secure	Holds 200lbs/Station's size (open locks DC 25 to access)	5
Standard	Holds 200lbs/Station's size	2
Tech Station	Repair facility level repairs possible	6

Space station Equipment

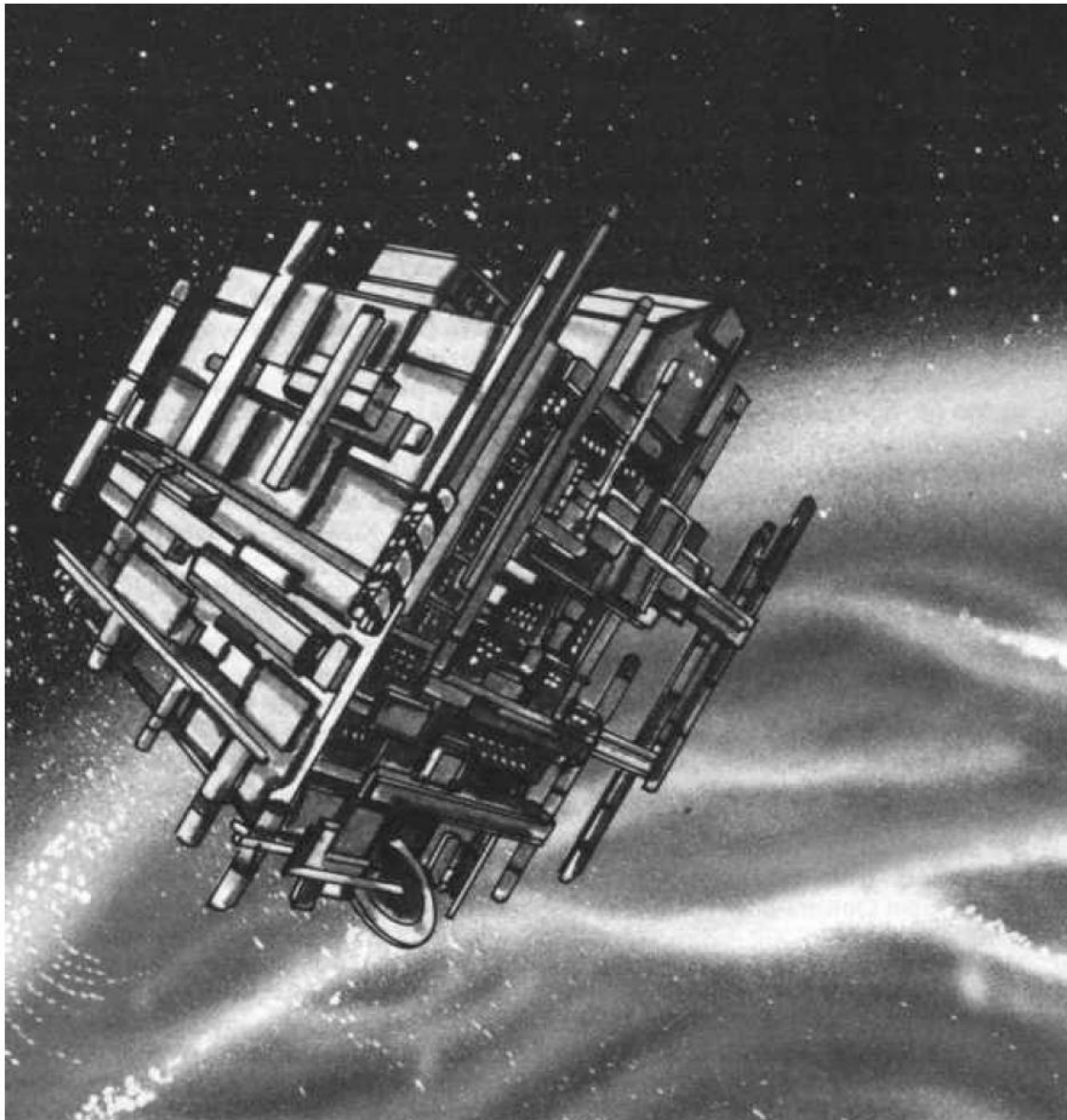
Item	notes	Cost
Atmoprobes	Transmits atmospheric data to scientific station's computer before burning up in atmosphere each probe takes up 1 weapon point	1,000cr
Cargo cranes	1 cargo crane can unload 20 tons of cargo/hour. Each takes up 2 weapon emplacement points	10,000cr
Decoy missile	Dif 20 to detect decoy only small, medium or large ship signatures are Possible. It comes with launcher travels at speed of 1 and signal lasts 1 hour	100,000cr
External vid-cams (per 10)	Sends feed to sensor operator and security stations range 60'	5,000cr
White noise broadcaster	Jams all personal communicators with a range of 10	20,000cr



Section Two: Sample Space stations

On the pages that follow are a small sample of the kinds of Space stations that can be found throughout the Frontier. This is by no means an exhaustive list but should provide Administrators an idea of the kinds of space stations he can create for his campaign.

Civilian	Size	Military	Size
Communication's relay station	Small	Orbital defense platform	Small
Scientific surveillance station	Small	Surveillance station	Small
Orbital refinery	Medium	Spacefleet Outpost	Large
Scientific research station	Large	Spacefleet Supply Depot	Huge
Agro-station	Huge	Spacefleet Fortress (Type A)	Gargantuan
Recreation space station	Gargantuan	Spacefleet Fortress (Type B)	Colossal
Trade space station	Gargantuan		
Prison Station	Colossal		
Construction station	Colossal		



Civilian Space Stations

Communications Relay Station

Size: Small

Cost: n/a

Combat modifier:

HP: 20

Armor: 10

DR: 10

Defenses: Reflective hull (-2pts/die from lasers, -1pt/die from plasmas), Damage suppression systems (-1pt/die)

Defensive Shield: Type C

Points/round: 10

Maximum points/absorbed: 40

Weapon: Laser battery

Fire Arc: Swivel mounted (top)

Range: 10

Damage: 6d12

Engine type: n/a

Maneuverability: +0

Stealth: +8

Life support capacity: 10

Sensor suite: Type A

Range: 100au

Power plant type: A

Surplus seu/day: 500

Storage capacity: 1,000

Cargo: 500lbs

Consumables: 6 months

Crew Complement: 6 crewmembers

Notes: The Frontier is a huge place and communication is essential to maintaining cohesion in any intergalactic government. Because of the often large expanse of interstellar space between worlds these Space stations were designed to relay communications from one star system to another. The station's crewmembers live in very cramped conditions and are responsible for maintaining the station in working order. The Station's communication's array is set to receive any communication in range, boost its signal and send it to its destination or to the next communications station where the process is repeated. By UPF law the transmissions that are relayed through each station cannot be monitored by the station's crew, though some rumors exist that Star Law does have monitoring equipment at communication relay stations made to look like ordinary relay stations.

These stations have their own standard communications package, and sub-light communications. These stations have one escape pod in an external docking blister for emergencies.

Scientific surveillance station

Size: Small

Cost: n/a

Combat modifier:

HP: 20

Armor: 10

DR: 10

Defenses: Reflective hull (-2pts/die from lasers, -1pt/die from plasmas), Damage suppression systems (-1pt/die)

Defensive Shield: Type C

Points/round: 10

Maximum points/absorbed: 40

Engine type: n/a

Maneuverability: +0

Stealth: +14 (-6 to hit station)

Life support capacity: 10

Sensor suite: Type C

Range: 400au

Power plant type: A

Surplus seu/day: 500

Storage capacity: 1,000

Cargo: 500lbs

Consumables: 6 months

Crew Complement: 1 commander, 4 scientists

Notes: This type of space station is the smallest scientific research station still in use in the Frontier. The crewmembers of these stations live in cramped quarters, to make room for the laboratory equipment that uses up most of the space on this station. In addition to the laboratory these stations have an auto-doc in case of injury. The station has a reflective hull, and damage suppression systems, and a relatively good energy shield to offer the crew some protection, but the

stations do not have offensive capabilities.

Each station has six atmpobes in external launchers and they have a standard LS communications, with sub-light radio capabilities. The station has 6 cameras set into the hull of the station to allow the crew to monitor the ship's hull. The station has artificial gravity to allow the crewmembers to work as comfortably as possible in the confined station. These stations have one escape pod in an external docking blister in case of emergencies. They also have an emergency beacon, and receiver unit.

Orbital Refinery

Size: Medium

Cost: n/a

Combat modifier:

HP: 40

Armor: 14

DR: 18

Defenses: Light armor, Reflective hull (-2pts/die from lasers, -1pt/die from plasars), Damage suppression systems (-1pt/die)

Defensive Shield: Type D

Points/round: 15

Maximum points/absorbed: 60

Weapon: Standard laser cannon

Fire Arc: Swivel mounted (top)

Range: 20

Damage: 12d10

Weapon: Rocket battery

Fire Arc: Swivel mounted (bottom)

Missile type: Rockets (20)

Range: 6

Damage: 2d10

Engine type: n/a

Maneuverability: +0

Stealth: +6

Life support capacity: 20

Sensor suite: Type A

Range: 100au

Power plant type: B

Surplus seu/day: 1,000

Storage capacity: 5,000

Cargo: 500- tons

Consumables: 6 months

Crew Complement: 1 Crew chief, 1 Medical officer, 1 Tech-expert, 2 gunnery/security officers, and 10 miners

Notes: Many small mining operations in the outer system depend on these space stations, to refine the ore that they gather from the surface of the asteroids where the actual mine is, and prepare it for sale. Each of these Stations is built with light composite armor which is coated with reflective paint, and embedded with damage suppression equipment. In addition to this protection each refinery has a fairly good energy shield and has fairly decent weapons to deter pirates, and claim jumpers.

The Refinery has six cameras and skin sensors on the hull of the station in order to provide the crew of the station warnings if anyone or anything attaches to the station's hull. The refinery has a set of two cargo cranes that allow the crew to load or unload 40 tons of cargo/hour (20 tons/crane). Each refinery has 4 work pods in external docking blisters, and has two airlocks. The Refinery also has two escape pods in clearly marked areas of the station.

The Refinery has an onboard refinery that is capable of refining 10 tons of ore/hour but produces 1 ton of waste/hour that it is in use that has to be disposed of. The station has a standard bridge that has a standard communications array including LS communications, a Sub-space radio, and an emergency beacon and receiver unit. The refinery has modest accommodations for 20, and has a Galley, and Med lab. The station has a labor pool that can support up to ten robots. The Orbital refinery has a machine shop as well.

Scientific Research Station

Size: Large

Cost: n/a

Combat modifier:

HP: 60

Armor: 12

DR: 16

Defenses: Duralloy armor coat (+4 to DR, +2 to Armor), Reflective hull (-2pts/die from lasers, -1pt/die from plasars), Damage suppression systems (-1pt/die)

Defensive Shield: Type D

Points/round: 15

Maximum points/absorbed: 60

Engine type: n/a

Maneuverability: +4

Stealth: +4

Life support capacity: 100

Sensor suite: Type C

Range: 400au

Power plant type: B

Surplus seu/day: 1,000

Storage capacity: 5,000

Cargo: 750 tons

Consumables: 1 year

Crew Complement: 1 Commanding officer, 3 Sensory officers, 3 Computer experts, 3 Communications officers, 1 Chief of engineering, 9 Technicians, 1 chief of Medicine, 6 Medics, 1 Robotics expert, 1 Security chief, 6 Security officers, 6 Support staff, 1 Science officer, 30 scientists

Notes: The Frontier is full of mysteries waiting to be discovered, and these Space stations are a common sight around planets that are in the process of being surveyed. These Stations have been built with a layer of Duralloy armor coat with reflective surfaces, and damage suppression systems to provide protection for the station's crewmen. The station does not have weapon systems, but has a good defensive energy shield. The station has Maneuverability jets to allow the station to make adjustments in its orbit. On the station's hull are set 20 cameras and skin sensors that can detect the presence of intruders on the station's hull.

The science station has a large launcher that holds 20 Atmospheres, and 10 Remote probes. The station has 4 airlocks, and has 4 workpods in external docking blisters. The science station has two life pod bays that have ten escape pods in them. These are located in clearly marked areas, one between the engineering deck and the crew quarters, and one near the stations command bridge.

The Station's command bridge has a communication's station with standard LS communications, and a sub-light radio. The communication's section also has an emergency beacon, receiver, Communication's shielding and communications encryption equipment. The Station has 15 computer stations throughout the station with access to the station's computer core. The station has accommodations for up to 90 but the accommodations are modest. The station has a large galley, laundry facilities, and washroom facilities. There are three fully stocked laboratories and a Med-lab as well. The station has an engineering station with recycling capabilities, and a machine shop. These stations have a robotics labor pool that can support 15 robots. To make the work of the crew aboard the station easier these stations are equipped with artificial gravity.

Agro-Station

Size: Huge

Cost: n/a

Combat modifier:

HP: 100

Armor: 10

DR: 10

Defenses: Damage suppression systems (-1pt/die)

Defensive Shield: Type B

Points/round: 5

Maximum points/absorbed: 20

Engine type: n/a

Maneuverability: +0

Stealth: +2

Life support capacity: 4,000

Sensor suite: Type A

Range: 100au

Power plant type: B

Surplus seu/day: 1,000

Storage capacity: 5,000

Cargo: 1,000 tons

Consumables: 1 year

Crew Complement: 1 Station Commander, 3 Communication's officers, 3 Sensory officers, 3 Computer experts, 1 Chief Engineer, 6 Technicians, 1 Robotics expert, 1 Chief medical officer, 3 Medics, 1 Science officer, 3 Scientists, 6 support staff, 30 Agricultural experts.

Notes: as the many races of the Frontier move to colonize new worlds they often find that the planet cannot support the types of food that they require and it is easier to build an orbital station that can produce food for the colony on a regular basis then to depend on freighters to transport food across interstellar space. These huge stations are thus vital to the survival of many colonies. Agro stations are built with damage suppression equipment on their hulls, and minimal shielding which is used mostly to provide the station protection from space debris rather than attacks from enemy ships.

The station usually has 20 cameras set into the hull to provide the crewmembers a view of the station so they can assess if there is any damage or need of maintenance rather than if there are intruders on the station's hull. These stations have two hangers set in the hub of the station that can hold any medium sized ship or smaller that does not weigh more than 20 tons. The station has 4 external docking pods which hold a 10 person launch, and have 12 workpods in external docking blisters that can be accessed from the engineering section of the station.

These stations bridge has a communications station that has standard LS Communications, subspace communications, and an emergency beacon/receiver. The station's computer core can be accessed from 20 locations on the station. The station has modest accommodations for 80, and includes a galley where 40 crewmen can eat at one time, and has laundry facilities and washrooms for the station's crew. These stations provide crews with a Holo-Projections room that seats 40, and an entertainment suite that can hold 50 crewmembers at one time. There are offices in the station that are shared by the medical and scientific staff. The station has a full med-bay, and laboratory. The engineering section has a machine shop, and recycling center, and has a labor pool that can house up to 20 robots.

An agricultural station usually has a huge hydroponics bay that displaces 4,000 tons of cargo space. This hydroponics bay generally produces enough food to feed 200,000 people every month, and usually sells off surplus food. It should be noted that all agro-stations have two escape pod bays in clearly marked areas of the station. One is set between the command deck, and the crew quarters, and the second is set between the Crew quarters and the engineering deck. Each of these escape pod bays holds 10 escape pods.

Recreation Space station

Size: Gargantuan

Cost: n/a

Combat modifier:

HP: 140

Armor: 10

DR: 10

Defenses: Reflective hull (-2pts/die from lasers, -1pt/die from plasers), Damage suppression systems (-1pt/die)

Defensive Shield: Type D

Points/round: 15

Maximum points/absorbed: 60

Engine type: n/a

Maneuverability: +0

Stealth: +1

Life support capacity: 8,000

Sensor suite: Type A

Range: 100au

Power plant type: B

Surplus seu/day: 1,000

Storage capacity: 5,000

Cargo: 7,500

Consumables: 1 year

Crew Complement: 1 Commander, 3 Sensory officers, 3 Communications officers, 1 Chief engineer, 6 Technicians, 1 Chief medical officer, 6 Medics, 1 chief of robotics, 6 Robotics experts, 1 Chief of security, 100 security officers, 200 support personnel (Valets, Servers, Casino dealers, service staff etc.)

Notes: These Space stations are quite popular in the core worlds and offer an exciting change of pace for many people who live their lives planetside. Most recreation Space stations are owned by Mega corporations, and none are as popular as the ones owned by star Play Industries. These stations are quite beautiful with bright reflective paint on their hulls that hide damage suppression equipment. The stations are generally unarmed, but have adequate defensive shielding. The stations have 20 cameras and skin sensors on the station's hull to provide security against intruders trying to break through the Station's hull.

The station's command section has a communications array that has standard LS communications, and also has subspace radio capabilities. The communications section also has an emergency beacon and receiver. The station's computer core can be accessed from 20 locations in the station. These stations provide their crew with adequate accommodations including laundry facilities, washrooms, and a galley that can feed 50 at one time. The engineering section has a machine shop, and recycling center, and has a labor pool which can house 25 robots.

These stations have three hangers that can each support a ship of up to large size that does not weigh more than 40 tons. These stations all have tractor beam units set above the hanger bay that can be used to immobilize any large ship or smaller and draw it into the hangers. This is usually used to provide assistance to ships in distress. The station has 4 external docking areas that hold a ten person launch. In accessible docking blisters from the engineering section these stations have four work pods. These stations generally have five clearly marked escape pod bays that hold ten escape

Pods/bay.

Most of the station's interior space is used up by opulent hotels, casinos, holographic and traditional theatres, restaurants, banking facilities, sporting arenas, stores and other entertainment venues. A station of this size can easily accommodate up to 7,000 people without taxing their life support system. Most recreation stations have at least some form of Star Law presence aboard, and usually have a brig that can hold up to 100 people until they can be taken to a proper legal facility.

Trade space station

Size: Gargantuan

Cost: n/a

Combat modifier:

HP: 140

Armor: 10

DR: 10

Defenses: Reflective hull (-2pts/die from lasers, -1pt/die from plasmas), Damage suppression systems (-1pt/die)

Defensive Shield: Type D

Points/round: 15

Maximum points/absorbed: 60

Weapon: Laser battery (2)

Fire Arc: Swivel mounted (top)

Range: 10

Damage: 6d12

Weapon: Electron battery

Fire Arc: Swivel mounted (bottom)

Range: 10

Damage: 3d6

Engine type: n/a

Maneuverability: +0

Stealth: +1

Life support capacity: 8,000

Sensor suite: Type A

Range: 100au

Power plant type: B

Surplus seu/day: 1,000

Storage capacity: 5,000

Cargo: 7,500

Consumables: 1 year

Crew Complement: 1 Commander, 3 Sensory officers, 3 Communications officers, 1 chief gunnery officer, 6 Gunnery officers, 1 Chief engineer, 6 Technicians, 1 Chief medical officer, 6 Medics, 1 chief of robotics, 6 Robotics experts, 1 Chief of security, 100 security officers, 200 support personnel (sales people, sales managers, stock people, service staff etc.)

Notes: These Space stations are quite popular in the core worlds and are a cross between a convention center, a floating showroom, and a mall. Most Trade Space stations are owned by Mega-Corporations, and the rivalry between Mega-Corps to draw the most profits from these stations is fierce. These stations are built to be as attractive as possible and often use brightly colored reflective paint on their hulls that hide damage suppression equipment. The stations are usually lightly armed and have decent defensive shielding. The stations have 20 cameras and skin sensors on the station's hull to provide security against intruders trying to break through the Station's hull.

The station's command section has a communications array that has standard LS communications, and also has sub-space radio capabilities. The communications section also has an emergency beacon and receiver. The station's computer core can be accessed from 20 locations in the station. These stations provide adequate accommodations for its crew including laundry facilities, washrooms, and a galley that can feed 50 at one time. The engineering section has a machine shop, and recycling center, and has a labor pool which can house 25 robots.

These stations have three hangers that can each support a ship of up to large size that does not weigh more than 40 tons. A trade station has a tractor beam unit set above each of its hanger bays that can be used to immobilize any Large ship (or smaller) and draw it into the hangers. This is usually used to provide assistance to ships in distress. The station has 4 external docking areas that hold a ten person launch. In accessible docking blisters from the engineering section these stations have four work pods. These stations generally have five clearly marked escape pod bays that hold ten escape pods/bay.

Most of the station's interior space is used up by large convention halls, hotels, casinos, showrooms, restaurants, banking facilities, department and specialty stores and other trade venues. A station of this size can easily accommodate up to 7,000 people without taxing their life support system. Most Trade stations have at least some form of Star Law presence aboard, and usually have a brig that can hold up to 100 people until they can be taken to a proper legal facility.

Prison Station

Size: Colossal

Cost: n/a

Combat modifier:

HP: 220

Armor: 15

DR: 20

Defenses: Reinforced construction, Medium armor, Reflective hull (-2pts/die from lasers, -1pt/die from plasmas), Damage suppression systems (-1pt/die)

Defensive Shield: Type D

Points/round: 15

Maximum points/absorbed: 60

Weapon: laser battery (4)

Fire Arc: Swivel mounted (top)

Range: 10

Damage: 6d12

Weapon: Seeker missile launcher (2) **Fire Arc:** Swivel mounted (bottom)

Missile type: Seeker missiles (20/launcher)

Range: 10

Damage: 3d10

Engine type: n/a

Maneuverability: +0

Stealth: +0

Life support capacity: 16,000

Sensor suite: Type B

Range: 200au

Power plant type: D

Surplus seu/day: 10,000

Storage capacity: 50,000

Cargo: 20,500 tons

Consumables: 1 year

Crew complement: 1 Station commander, 1 Warden, 3 Sensory officers, 3 Computer experts, 3 Communications officers, 1 Chief of engineering, 6 Technicians, 1 Chief of robotics, 3 Robotics experts, 1 Chief of Medicine, 6 Medics, 1 Chief of Psychiatry, 3 Psychiatrists, 1 Chief of Security, 6 Security officers, 6 support staff, 4 Star law officers, 1 Captain on the watch, 500 Guards, 4,000 Inmates

Notes: In every society there exist fringe elements, such as criminals, pirates, murderers and the like, who must be captured for the common good and kept away from society. In the Frontier these elements are often kept in prison Space stations or sent to penal colonies, to serve out their sentences. A Typical prison space station is built with a heavily reinforced superstructure and medium grade composite armor with reflective paint and damage suppression equipment. In addition to this these stations have laser batteries and seeker missile launchers, as well as fairly decent energy shields to deter enemy ships from attempting to break out their prisoners. If the enemy does manage to get to the hull of the prison station, there are 20 strategically placed cameras and skin sensors to detect their presence.

A Prison station has one hanger which can hold any ship up to huge size that does not weigh over 100 tons, and has a second hanger that holds 10 fighter craft which can be used to engage potential ships attempting to help prisoners escape. The Prison station has a tractor beam projector that can capture any huge or smaller ship and hold it until it can be boarded and searched. To aid in boarding actions the prison station has two ten passenger launches which it houses in external docking blisters. The Station also has 4 workpods in external docking modules that are accessible in the engineering section of the station.

The command bridge of the station has a communication station with standard LS communications, subspace radio, communications shielding, and encryption modes, and has an emergency beacon, and receiver. The stations main computer can be accessed from 15 locations on the station. The station has a full medical bay, and has modest accommodations for up to 60 command personnel, and has barracks style accommodations for its guards. There are two offices in the station where the medical staff, Psychiatric staff and Star Law officers can be found. The Star law officers and security personnel have access to the Stations armory which holds 1.2 tons of protective gear, weapons and ammunition. The station has two escape pod bays set between the command section, and crew quarters. Each of these bays houses ten escape pods.

The station has five galleys, laundry facilities, and washrooms, and inmates have scheduled times where they can use these facilities. There is also a holo-Projections room that can house 60, and a standard entertainment bay where 50 inmates at a time can relax. Prisoners who have earned the right can work in either of the stations two machine shops, recycling centers, or hydroponics bays (each which is capable of feeding 120 people) Prisoners are segregated into large cellblocks that hold 120 prisoners per cellblock.

Spacecraft Construction Facility

Size: Colossal

Cost: n/a

Combat modifier: HP: 220
Armor: 16 DR: 13
Defenses: Reinforced construction (heavy), Hyper-steel armor coat, Damage suppression systems (-1pt/die)

Defensive Shield: Type D **Points/round:** 15 **Maximum points/absorbed:** 60

Weapon: laser battery (2) **Fire Arc:** Swivel mounted (top/bottom) **Range:** 10 **Damage:** 6d12

Engine type: n/a **Maneuverability:** +0 **Stealth:** +0

Life support capacity: 16,000 **Sensor suite:** Type A **Range:** 100au
Power plant type: D **Surplus seu/day:** 10,000 **Storage capacity:** 50,000
Cargo: 35,000 tons **Consumables:** 1 year

Crew complement: 1 Operation's chief, 3 Commanding officers, 3 Sensory officers, 3 Computer experts, 3 Communications officers, 1 Chief of engineering, 9 Engineers, 1 chief of Medicine, 6 Medics, 1Chief of Robotics 9 Robotics experts, 1 Security chief, 24 Security officers, 18 Support staff, 4,000 crewmembers

Notes: Spacecraft are an essential part of Frontier life, and so orbital facilities that serve as construction and repair facilities are quite common. These Stations are built with heavy reinforced frames, and have hyper-steel armor coatings not so much to provide them protection, but because building space craft often involves working with dangerous components that can do incredible damage if a mishap occurs. Damage suppression equipment is embedded into the hulls of these stations to further insure that the station survives damage. Because Spacecraft weapons and parts are an attractive target for pirates, these Stations are armed with laser batteries, and have good energy shields. The station has 40 cameras in strategic locations on the hull of the facility and skin sensors to further deter intruders who might be trying to breach the station's hull.

The station's command core includes a communication station with standard LS communications, and subspace radio, and has an emergency beacon/receiver unit. The Station's computer core has 30 sub-stations throughout the construction station. The Station has modest accommodations for 60 crewmen with the others usually live off-station. The station's galley can feed 60, and the ship has laundry and washroom facilities for the 60 personnel who live at the station. The station has four large escape pod bays that are accessible by anyone either in the command section of the station, or crew quarters. These bays each house ten escape pods.

A typical Construction station has 4 engineering bays each attached to a hanger that can hold any ship of Huge size or smaller that doesn't weigh more than 100 tons. Each engineering section has a machine shop, recycling facilities, and has a labor pool with 30 robots to help with construction and repair. Each hanger also has a huge cargo bay that holds 5,000 tons of ship grade equipment.

Spaceship's larger than the size that can be built in a hanger can be built or repaired at the station as well, but these ships are built in orbit around the station. To move crews from the station to these construction areas are eight ten passenger launches that are kept in clearly designated external docking blisters on the station. These stations also have 4 workpods in each hanger bay to help with construction and repair. Construction stations have four tractor beam projectors set near each hanger that can hold any ship of up to huge size that does not weigh more than 100 tons. In addition to these the hangers also have two cranes that can each move 20 tons of cargo or other materials/hour.

Military Space stations

Orbital Defense Platform

Size: Small

Cost: n/a

Combat modifier: +4

HP: 20

Armor: 10

DR: 10

Defenses: Reflective hull (-2pts/die from lasers, -1pt/die from plasars), Damage suppression systems (-1pt/die)

Defensive Shield: Type B

Points/round: 5

Maximum points/absorbed: 20

Weapon: Electron battery

Fire Arc: Swivel mounted (top)

Range: 10

Damage: 3d6

Weapon: Missile battery

Fire Arc: Swivel mounted (bottom)

Missile type: Missiles (10)

Range: 10

Damage: 4d8

Weapon: Seeker missile launcher

Fire Arc: Forward firing

Missile type: Seeker missiles (3)

Range: 10

Damage: 3d10

Engine type: n/a

Maneuverability: +0

Stealth: +8

Life support capacity: 10

Sensor suite: Type A

Range: 100au

Power plant type: A

Surplus seu/day: 50

Storage capacity: 100

Cargo: 500lbs

Consumables: 6 months

Crew Complement: 1 captain, 9 gunnery officers

Notes: An Orbital defense platform is a very small space station that generally supports a crew of 10 consisting of the lead officer (called the captain) and 9 gunnery officers who work in three shifts (3men shifts). The Orbital defense platform has a reflective hull, and embedded damage suppression equipment to augment its weak shields. The crew inside live in very cramped conditions.

These small stations are generally set up in orbit around most populated planets in the core and central systems, to provide additional support to planetary defenses. All Orbital defense platforms are equipped with standard communications, and sub-light communications. The stations main computer is linked to a combat computer which increases the onboard gunners to hit rolls by +4. These stations have one escape pod in an external docking blister in case of emergencies.

Surveillance Stations

Size: Small

Cost: n/a

Combat modifier: +2 to hit

HP: 20

Armor: 10

DR: 10

Defenses: Reflective hull (-2pts/die from lasers, -1pt/die from plasars), Damage suppression systems (-1pt/die)

Defensive Shield: Type C

Points/round: 10

Maximum points/absorbed: 40

Weapon: Laser battery

Fire Arc: Swivel mounted (top)

Range: 10

Damage: 6d12

Weapon: Seeker missile launcher

Fire Arc: Forward firing

Missile type: Seeker missiles (3)

Range: 10

Damage: 3d10

Engine type: n/a

Maneuverability: +0

Stealth: +12 (-4 to hit station)

Life support capacity: 10

Sensor suite: Type C

Range: 400au

Power plant type: A
Cargo: 500lbs

Surplus seu/day: 500

Storage capacity: 1,000
Consumables: 6 months

Crew Complement: 1 command officer, 4 gunnery officers, 5 crewmen

Notes: These Space stations are used on the edge of the demilitarized zone between the Frontier and the Aldorian, and Ordanian Empires. They are designed specifically to monitor activity within the empires and report anything suspicious to any Spacefleet ship in the area. To this end these stations have impressive sensory arrays, and their communications array includes communication jamming, encryption, and shielding equipment, and they also have a white noise broadcaster. The station also has standard LS communications and sub-light radio capabilities.

The station's crewmembers live in cramped quarters and the station has one escape pod in an external docking blister. These stations have reflective hulls and damage suppression equipment in their hulls, and have fairly good energy shields. Their offensive capabilities are fairly decent as well, and the gunners have computer augmenting targeting systems that give them a +2 bonus to hit in combat. These stations are designed with sensor baffling systems that make them difficult to detect by enemy sensors, and also makes getting a weapons lock on the station difficult as well.

Spacefleet Outpost

Size: Large

Cost: n/a

Combat modifier: +4

HP: 100

Armor: 14

DR: 18

Defenses: Reinforced construction, Light armor, reflective hull (-2pts/die from lasers, -1pt/die from plasmas), Damage suppression systems (-1pt/die)

Defensive Shield: Type G **Points/round:** 30

Maximum points/absorbed: 120

Weapon: Electron battery (2)

Fire Arc: Swivel mounted (top)

Range: 10

Damage: 3d6

Weapon: Laser cannons (2)

Fire Arc: Swivel mounted (top)

Range: 20

Damage: 12d10

Weapon: Rocket battery (2)

Fire Arc: Forward firing (side mounted)

Range: 6

Damage: 2d10

Missile type: Rockets (40/battery)

Weapon: Seeker missile launcher

Fire Arc: Swivel mounted (bottom)

Range: 10

Damage: 3d10

Missile type: Seeker missiles (20)

Engine type: n/a

Maneuverability: +0

Stealth: +10 (-6 to hit station)

Life support capacity: 100

Sensor suite: Type C

Range: 400au

Power plant type: B

Surplus seu/day: 1,000

Storage capacity: 5,000

Cargo: 750 tons

Consumables: 1 year

Crew Complement: 1 Station Commander, 2 Lieutenant Commanders, 3 Sensory officers, 3 Communications officers, 1 Chief engineer, 9 Technicians, 1 Chief of Robotics, 6 Robotics experts, 1 Gunnery sergeant, 21 gunnery officers, 1 Flight commander, 6 Pilots, 1 Frontier Marine Corps Commander, 40 Frontier Marines, 4 enlisted crewmen

Notes: Spacefleet has a long history of setting up Outposts in secret locations in the outer systems to serve as an early warning network in the event of aggressive actions by enemies both from within the Frontier and beyond. These outposts are generally very self-sufficient affairs because of the secret nature of their locations. Outposts are built with heavily reinforced frames, and have light weight armored hulls with embedded damage suppression systems and reflective properties. In addition to this Spacefleet has made it a practice to use very good energy shield generators to provide protection to these stations, and has included sensor baffling technology to make these stations resistant to detection.

Each outpost has two hanger bays each that has a tractor beam mounted near it. The tractor beams can hold any Small ship and keep it immobile or draw it into one of the hanger bays. Each of the Stations bays hold 1 fighter that is used by the outpost mainly for patrols. An outpost station generally has 4 workpods in external docking blisters that can be accessed through the station's engineering deck. Each station also has one escape pod bay that is located near the

stations crew quarters that holds ten escape pods. The hull of each of these outposts has been fitted with 20 cameras at strategic locations, and skin sensors in order to detect intruders on the station's hull.

The Station's command deck has a communications station that has standard SL communications, and a sub-space radio. It also has communication interception, encryption, shielding and jamming equipment, as well as having a white noise broadcaster and an emergency beacon/receiver. The Station's computer core can be accessed from 15 locations in the station. Each station has modest accommodations for 60 and has barracks style accommodations for 40 marines. The station has washrooms and laundry facilities, and has a large galley that can feed up to 30 crewmen at one time. The engineering section of the station has a machine shop, a recycling center and a labor pool that can house up to 15 robots.

Because of the extended amount of time that spacefleet personnel live on the station the creators of the station have included a Holo-theatre that can seat up to 30, and have a recreation bay where 50 crewmen can relax. The station also has a hydroponics bay that can provide special foods for up to 60 crewmen. Sadly these stations are often used to imprison criminals, and so they have a brig which can accommodate up to 60 people. The Station's armory holds 600kg worth of armor, weapons, and ammunition. It should be noted that typically good ranked crews are found on these Stations (Initiative: +2, combat: +4, Skill +4) because they have to be very capable and resourceful. In addition to this the station's targeting computers (Type B) grant the gunners a +4 bonus to their chance to hit a target.

Spacefleet Supply Depot

Size: Huge

Cost: n/a

Combat modifier: +4

HP: 140

Armor: 15

DR: 20

Defenses: Reinforced construction, medium grade armor, reflective hull (-2pts/die from lasers, -1pt/die from plasmas), Damage suppression systems (-1pt/die)

Defensive Shield: Type D

Points/round: 15

Maximum points/absorbed: 60

Weapon: Ion battery (2)

Fire Arc: Swivel mounted (top)

Range: 28

Damage: 12d10

Weapon: Light laser cannons (4)*

Fire Arc: Swivel mounted (top/bottom)

Range: 4

Damage: 4d10

Weapon: Heavy laser cannons (2)

Fire Arc: Swivel mounted (top)

Range: 28

Damage: 16d10

Weapon: Rocket battery (2)

Fire Arc: Forward firing (side mounted)

Range: 6

Damage: 2d10

Missile type: Rockets (40/battery)

Weapon: Seeker missile launcher

Fire Arc: Swivel mounted (bottom)

Range: 10

Damage: 3d10

Missile type: Seeker missiles (20)

*A supply station's light laser cannons are point defense weapons used to attack spacecraft that its Space station sized weapons cannot target.

Engine type: n/a

Maneuverability: +0

Stealth: +2

Life support capacity: 4,000

Sensor suite: Type C

Range: 400au

Power plant type: B

Surplus seu/day: 1,000

Storage capacity: 5,000

Cargo: 5,000 tons

Consumables: 1 year

Crew Complement: 1 Station Commander, 2 Lieutenant Commanders, 3 Sensory officers, 3 Communications officers, 1 Chief engineer, 27 Technicians, 1 Chief of Robotics, 18 Robotics experts, 1 Gunnery sergeant, 33 gunnery officers, 1 Flight commander, 12 Pilots, 1 Frontier Marine Corps Commander, 120 Frontier Marines, 120 enlisted crewmen

Notes: Every Military operation that must travel beyond its home star system requires supply lines, to maintain its fleet. Spacefleet generally maintains several of these stations in strategic locations throughout the Frontier. These supply stations represent the most common ones found in the central and outer systems. In the Core systems the supply depots tend to be much larger. These stations are built with heavily reinforced frames, and have Medium grade armored hulls with embedded damage suppression systems and reflective properties. In addition to this Spacefleet has made it a practice to use very good energy shield generators to provide protection to these stations.

Each supply depot has three hanger bays each that has a tractor beam mounted near it. The tractor beams can hold any Medium sized spacecraft that does not weigh more than 20 tons ship and keep it immobile or draw it into one of the hanger bays. The station usually keeps one bay empty, but in the other bays it holds 2 fighters each that are used by the Station either as patrol craft, escorts, or in times of trouble can use them to add to the stations other defenses. Typically each supply depot has 8 workpods in external docking blisters that can be accessed through the station's engineering deck. Each station also has two escape pod bays. One is located near the stations crew quarters and the other one is located between the command deck, and crew quarters. These bays are clearly marked and each one holds ten escape pods. The hull of each of these outposts has been fitted with 20 cameras at strategic locations, and skin sensors in order to detect intruders on the station's hull.

The Supply depot's command deck has a communications station that has standard SL communications, and a sub-space radio. It also has communication interception, encryption, shielding and jamming equipment, as well as having a white noise broadcaster and an emergency beacon/receiver. The station's computer core can be accessed from 20 locations in the station. Each station has modest accommodations for 80 and has barracks style accommodations for the rest of the station's crew complement. The station has washrooms and laundry facilities, and has a large galley that can feed up to 40 crewmen at one time. The engineering section of the station has a machine shop, a recycling center and a labor pool that can house up to 20 robots.

Because of the extended amount of time that spacefleet personnel live on the station, each Supply depot includes a recreation bay where 50 crewmen can relax. Supply stations have 4 huge (1,000 ton) cargo bays where it stores weapons, fuel, and spare parts for spacefleet warships. The station also has a fifth storage bay that can be used to store specialized equipment, such as vehicles, defensive apparel, weapons, and ammunition, and other supplies that may be required of the UPF military. Each station has two crane arms attached to the outer cargo bay doors which can move 40 tons of material per hour/pair of cranes to aid in loading supplies to waiting Spacefleet vessels.

Though these stations are seldom used to imprison criminals, these stations do possess a large brig which can accommodate up to 80 people. The Station's armory holds 800kg worth of armor, weapons, and ammunition. It should be noted that typically good ranked crews are found on these Stations (Initiative: +2, combat: +4, Skill +4) In addition to this the station's targeting computers (Type B) grant the gunners a +4 bonus to their chance to hit a target.

Spacefleet Space Fortress (Type A)

Size: Gargantuan

Cost: n/a

Combat modifier: +4

HP: 180

Armor: 16

DR: 22

Defenses: Heavy reinforced frames, Heavy Armor, Reflective hull (-2pts/die from lasers, -1pt/die from plasmas), Damage suppression systems (-1pt/die)

Defensive Shield: Type J

Points/round: 100

Maximum points/absorbed: 400

Weapon: Ion battery (2)

Fire Arc: Swivel mounted (top)

Range: 28

Damage: 12d10

Weapon: Light laser cannons (4)*

Fire Arc: Swivel mounted (top/bottom)

Range: 4

Damage: 4d10

Weapon: Heavy laser cannons (4)

Fire Arc: Swivel mounted (top)

Range: 28

Damage: 16d10

Weapon: Rocket battery (2)

Fire Arc: Forward firing (side mounted)

Missile type: Rockets (40/battery)

Range: 6

Damage: 2d10

Weapon: Seeker missile launcher (2) **Fire Arc:** Swivel mounted (bottom)

Missile type: Seeker missiles (20/missile launcher)

Range: 10

Damage: 3d10

*A Fortresses' light laser cannons are point defense weapons used to attack spacecraft that its Space station sized weapons cannot target.

Engine type: n/a

Maneuverability: +0

Stealth: +1

Life support capacity: 8,000

Sensor suite: Type A

Range: 100au

Power plant type: B

Surplus seu/day: 1,000

Storage capacity: 5,000

Cargo: 5,000 tons

Consumables: 1 year

Crew Complement: 1 Station Commander, 2 Lieutenant Commanders, 3 Sensory officers, 3 Communications officers, 1 Chief engineer, 9 Engineering crew chiefs, 54 Technicians, 1 Chief of Robotics, 36 Robotics experts, 1 Gunnery sergeant, 42 gunnery officers, 1 security chief, 120 security officers, 1 Flight commander, 32 Pilots, 1 Frontier Marine Corps Commander, 240 Frontier Marines, 240 enlisted crewmen

Notes: Space fortresses are the often the last line of defense that a planet has against invaders before they must deploy planetary defenses in a last ditch effort to repel their enemies. Space fortresses however are extremely expensive to build and maintain, and only the most populated star systems or those systems that are of strategic importance have a chance of being protected by one. Space fortresses of this size are often found close to the border between the Outer systems and the central systems of the Frontier, and even there they are uncommon.

These massive space stations are built with heavily reinforced frames, and have Heavy armored hulls with embedded damage suppression systems and reflective properties. In addition to this Spacefleet has made it a practice to use powerful energy shield generators to provide additional protection to these Space fortresses.

Each Space fortress has four hanger bays each with a tractor beam mounted near it. The tractor beams can hold any Large sized that does not weigh more than 40 tons and keep it immobile or draw it into one of the hanger bays. The station usually keeps one bay empty, but in the other three bays it holds 4 fighters each that are used as patrol craft, escorts, or in times of trouble are sent into combat against the station's opponents. Each Fortress has 8 workpods in external docking blisters that can be accessed through the station's engineering deck. Each station also has four escape pod bays. One is located near the stations crew quarters and two others are located between the command deck, and crew quarters. The last escape pod bay is located between the crew decks and the Engineering section. These bays are clearly marked and each one holds ten escape pods. The hull of each of these Fortresses has been fitted with 40 cameras at strategic locations, and skin sensors in order to detect intruders on the station's hull.

A space Fortresses' command deck has a communications station that has standard SL communications, and a sub-space radio. It also has communication interception, encryption, shielding and jamming equipment, as well as a white noise broadcaster and an emergency beacon/receiver. The station's computer core can be accessed from 25 locations in the station. Each Space Fortress has modest accommodations for 100 and has barracks style accommodations for the rest of the Fortresses' crew complement. Each Fortress has washrooms and laundry facilities, and a large galley that can feed up to 50 crewmen at one time. The engineering section of the station has a machine shop, a recycling center and a labor pool that can house up to 25 robots.

Because of the extended amount of time that spacefleet personnel live at the Fortress There is a holo-theatre that can seat up to 50 and a standard recreation bay where 50 off duty crewmen can relax. Space Fortresses have 4 huge (1,000 ton) cargo bays where it stores weapons, fuel, and spare parts for Spacefleet warships. The station has a fifth storage bay that can be used to store specialized equipment, such as vehicles, defensive apparel, weapons, and ammunition, and other supplies that may be required of the UPF military. Each station has two crane arms attached to the outer cargo bay doors which can move 40 tons of material per hour/pair of cranes to aid in loading supplies to waiting Spacefleet vessels.

Space fortresses sometimes must double as prisons during wartime. Usually war criminals are held at a space fortress until they can safely be transported to the nearest star system large enough to offer the criminal a fair trial. Each fortress of this size can house up to 100 criminals. A space Fortress maintains an armory that holds one ton worth of armor, weapons, and ammunition for its crew, though it can augment this by using equipment stored in one of its cargo bays if need be.

The crew of a Space fortress of this size are usually chosen from all over the Frontier, and though they do not require the type of stringent testing that is required of other Spacefleet personnel they are still very proficient individuals. Most crews aboard a space Fortress of this size are good ranked (Initiative: +2, combat: +4, Skill +4) In addition to this the station's targeting computers (Type B) grant the gunners a +4 bonus to their chance to hit a target. The crew listing above is the standard crew complement that a Space fortress must have to run efficiently. During wartime however a Space fortresses ranks can swell to up to several thousand (but no more than the number its life support can support).

Spacefleet Space Fortress (type B)

Size: Colossal

Cost: n/a

Combat modifier: +4

HP: 220

Armor: 16

DR: 22

Defenses: Reinforced construction, Heavy armor, Reflective hull (-2pts/die from lasers, -1pt/die from plasers), Damage suppression systems (-1pt/die)

Defensive Shield: Type J **Points/round:** 100 **Maximum points/absorbed:** 400

Weapon: Ion battery (2)	Fire Arc: Swivel mounted (top)	Range: 28	Damage: 12d10
Weapon: Turbo plaser cannons (4)	Fire Arc: Swivel mounted (top/bottom)	Range: 28	Damage: 20d12
Weapon: Heavy laser cannons (4)	Fire Arc: Swivel mounted (top)	Range: 28	Damage: 16d10
Weapon: Light laser cannons (4)*	Fire Arc: Swivel mounted (top/bottom)	Range: 4	Damage: 4d10

Weapon: Rocket battery (2)	Fire Arc: Forward firing (side mounted)		
Missile type: Rockets (40/battery)		Range: 6	Damage: 2d10

Weapon: Seeker missile launcher (2)	Fire Arc: Swivel mounted (bottom)		
Missile type: Seeker missiles (20/missile launcher)		Range: 10	Damage: 3d10

Weapon: Assault rocket launcher**	Fire Arc: Swivel mounted (bottom)		
Missile type: Assault rockets (30)		Range: 5	Damage: 6d10

*A Fortresses' light laser cannons are point defense weapons used to attack spacecraft that its Space station sized weapons cannot target.

**A space fortresses assault rockets are point defense weapons that allow the station to target small craft that its standard weapons cannot target.

Engine type: n/a	Maneuverability: +0	Stealth: +0
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Life support capacity: 16,000	Sensor suite: Type B	Range: 200au
Power plant type: D	Surplus seu/day: 10,000	Storage capacity: 50,000
Cargo: 25,000 tons		Consumables: 1 year

Crew Complement: 1 Station Commander, 4 Lieutenant Commanders, 3 Sensory officers, 3 Communications officers, 1 Chief engineer, 18 Engineering crew chiefs, 108 Technicians, 1 Chief of Robotics, 72 Robotics experts, 1 Gunnery sergeant, 57 Gunnery officers, 1 Security chief, 240 Security officers, 1 Flight commander, 60 Pilots, 1 Frontier Marine Corps Commander, 480 Frontier Marines, 500 enlisted crewmen

Notes: Space fortresses such as these are extremely expensive to build and maintain, and only the most populated star systems in the central systems have a chance of being protected by one of these juggernauts. Space fortresses of this size are very uncommon. These massive Space fortresses are built with heavily reinforced frames, and have Heavy armored hulls with embedded damage suppression systems and reflective properties. In addition to this Spacefleet has made it a practice to use powerful energy shield generators to provide additional protection to these massive installations.

Each Space fortress has four hanger bays each with a tractor beam mounted near it. The tractor beams can hold any Huge Spacecraft that does not weigh more than 100 tons and keep it immobile or draw it into one of the hanger bays. The Fortress usually keeps one bay empty, but in two of the other bays it holds 10 Knight Hawk star fighters each that are used as patrol craft, escorts, or in times of trouble are sent into combat against the station's opponents. The third bay aboard one of these installations usually houses an Assault scout. Each Fortress has 16 workpods in external docking blisters that can be accessed through the station's engineering deck. Each station also has four escape pod bays. One is located near the stations crew quarters and two others are located between the command deck, and crew quarters. The last escape pod bay is located between the crew decks and the Engineering section. These bays are clearly marked and each one holds ten escape pods. The hull of each of these Fortresses has been fitted with 40 cameras at strategic locations, and skin sensors in order to detect intruders on the station's hull.

A space Fortresses' command deck has a communications station that has standard SL communications, and a sub-space radio. It also has communication interception, encryption, shielding and jamming equipment, as well as a white noise broadcaster and an emergency beacon/receiver. The station's computer core can be accessed from 25 locations in the station. Each Space Fortress has modest accommodations for 100 and has barracks style accommodations for the rest of the Fortresses' crew complement. Each Fortress has washrooms and laundry facilities, and a large galley that can feed up to 50 crewmen at one time. The engineering section of the station has a machine ship, a recycling center and a labor pool that can house up to 25 robots.

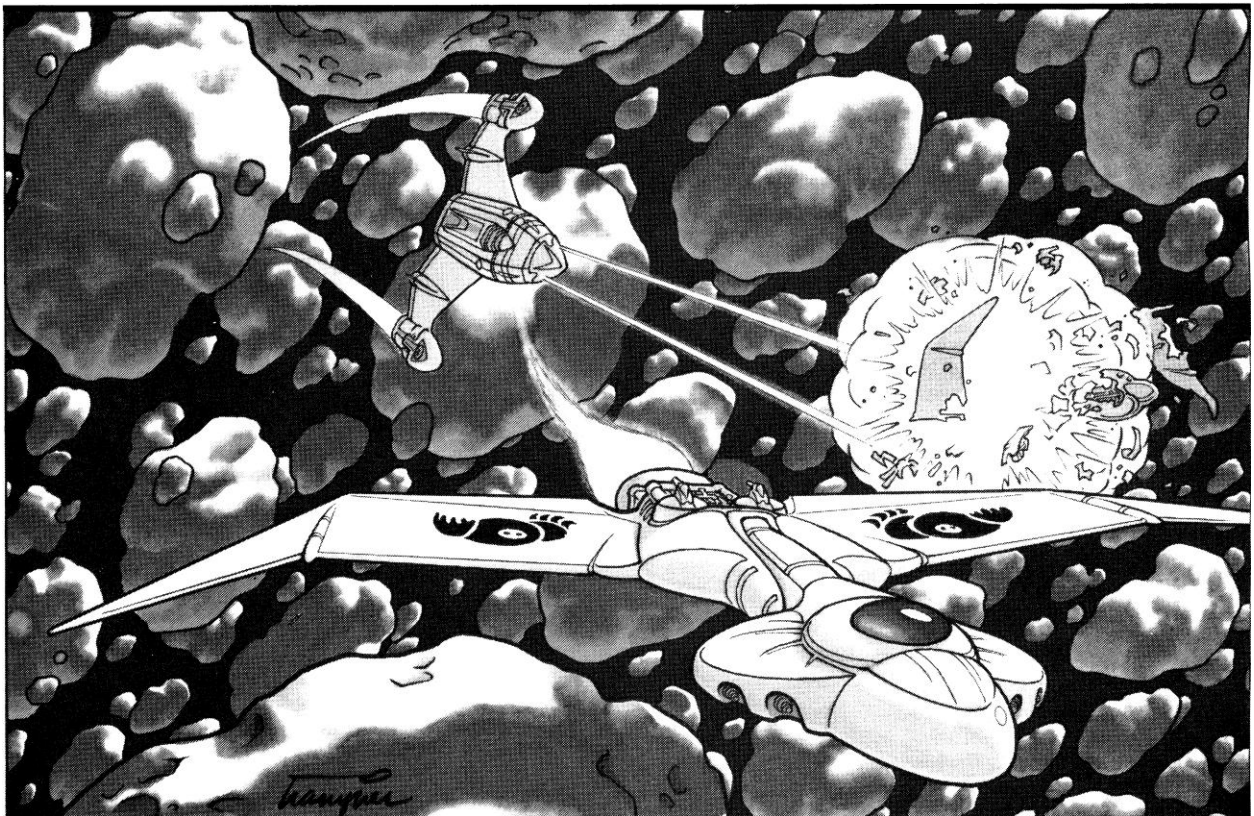
A space Fortresses' command deck has a communications station that has standard SL communications, and a sub-

space radio. It also has communication interception, encryption, shielding and jamming equipment, as well as a white noise broadcaster and an emergency beacon/receiver. The station's computer core can be accessed from 30 locations in the station. Each Space Fortress has modest accommodations for 200 and has barracks style accommodations for the rest of the Fortresses' crew complement. Each Fortress has washrooms and laundry facilities, and a large galley that can feed up to 60 crewmen at one time. The engineering section of the station has a machine ship, a recycling center and a labor pool that can house up to 30 robots.

Because of the extended amount of time that Spacefleet personnel live at the Fortress There is a holo-theatre that can seat up to 60 and a standard recreation bay where 50 off duty crewmen can relax. Space Fortresses have 4 huge (1,000 ton) cargo bays where it stores weapons, fuel, and spare parts for Spacefleet warships. The station has a fifth storage bay that can be used to store specialized equipment, such as vehicles, defensive apparel, weapons, and ammunition, and other supplies that may be required of the UPF military. Each station has two crane arms attached to the outer cargo bay doors which can move 40 tons of material per hour/pair of cranes to aid in loading supplies to waiting Spacefleet vessels.

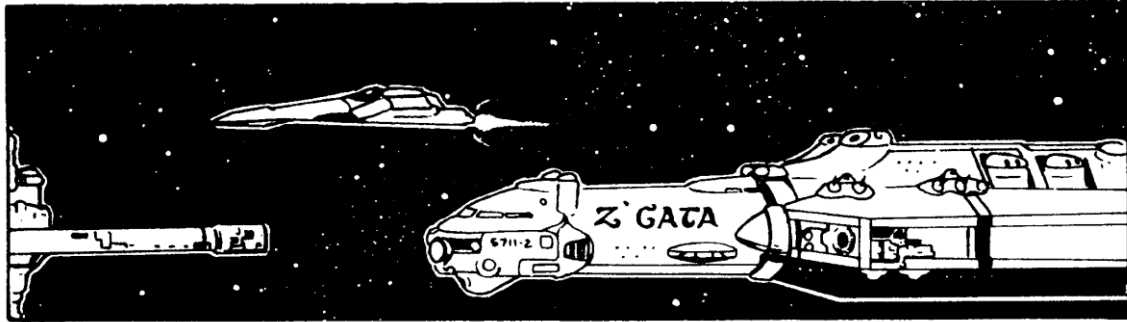
Space fortresses sometimes must double as prisons during wartime. Usually war criminals are held at a space fortress until they can safely be transported to the nearest star system large enough to offer the criminal a fair trial. Each fortress of this size can house up to 120 criminals. A space Fortress maintains an armory that holds 2 tons worth of armor, weapons, and ammunition for its crew, though it can augment this by using equipment stored in one of its cargo bays if need be.

The crew of a Space fortress of this size are culled from among the best and brightest that Spacefleet has to offer. Each candidate must pass stringent physical and psychological tests before they are posted on these massive fortresses. Most crews aboard a Space Fortress of this size are good ranked (Initiative: +4, Combat: +8, Skill +6). In addition to this the station's targeting computers (Type B) grant the gunners a +4 bonus to their chance to hit a target. The crew listing above is the standard crew complement that a Space fortress must have to run efficiently. During wartime however a Space fortresses ranks can swell to up to several thousand (but no more than the number its life support can support).



Section Three: Miscellaneous Space Craft

This section details a number of Spacecraft that are generally unavailable for use by Player characters. Included in this section are several examples of Pirate Spacecraft, as well as details regarding the ships used by the Sathar. These are by no means the only ships available for an Administrator to use when creating adventures but should help jumpstart his imagination.



Pirate Spacecraft

The following are examples of common spacecraft that are often the targets of Pirates. These space craft have all been modified in some way to show examples of what Pirates will do to a captured craft to turn it into a lethal pirate ship. It should be noted that because of the trouble that often follows trying to get missiles and launchers by civilians Most Pirates seldom have them on their ships, and if they do, they only use them if absolutely necessary. Of course some of the more infamous pirate gangs might have far reaching connections that allow them access to missiles and such, but those details are left for the administrator to decide.

System Ships	Size	Starships	Size
Bulk cargo transport	Large	Bulk cargo Transport	Large
Standard cargo transport	Gargantuan	Standard cargo Transport	Gargantuan
		Corvette	Large

Sathar Spacecraft

System Ships	Size	Starships	Size
Sathar Interceptor	Small	Sathar Viper class star fighter	Small
Sathar Bomber	Small	Sathar Corvette	Large
		Sathar Frigate	Gargantuan
		Sathar Destroyer	Gargantuan
		Sathar Minelayer	Gargantuan
		Sathar Assault transport	Gargantuan
		Sathar Light cruiser	Colossal
		Sathar Heavy cruiser	Colossal II
		Sathar Battle carrier	Colossal II

Pirate Spaceships

System Ships

Bulk Cargo Transport (Pirate Version)

Size: Large **Cost:** n/a

Combat modifier: +2 **HP:** 30
Armor: 12 **DR:** 20
Defenses: Duralloy armor coat, Reflective paint (-2pts/die from lasers, -1pt/die from plasers)

Defensive shields: Defensive Shield (Class E) **Points/round:** 20 **Maximum points/absorbed:** 80

Weapon: Light plaser cannon **Range:** 8 **Fire Arc:** Swivel mounted (top) **Damage:** 5d8
Weapon: Electron battery (2) **Range:** 5 **Fire Arc:** Swivel mounted (bottom rear) **Damage:** 3d6

Engine type: Ion/gravity flux (type F) **Maneuverability:** +6 **Stealth:** 14
Atmospheric: Escape velocity **Acc/Dec:** 3 **Cruise:** 6
FTL drive type: none **Ly/day:** n/a

Life support capacity: 64 **Sensor suite:** Type A **Range:** 10au
Power plant type: B **Surplus seu/day:** 100 **Storage capacity:** 500
Cargo: 200 tons **Consumables:** 3 weeks

Crew Complement: 1 Pirate captain, 1 pilot, 1 navigator, 1 communications officer, 1 sensory officer, 2 technicians, 1 engineer, 3 gunnery officers, 20+2d10 pirates

Notes: Pirates that do not travel beyond their home star system, often capture these mid-sized cargo haulers. They usually add Duralloy armor coating to the ship's hull, and reflective paint, to increase the ship's defensive capabilities. Most pirates will swap out the ship's chemical engines for ion Engines to increase the ship's speed, and then begin plying the space lanes for juicy targets. These ships retain their general appearance but they're very reliable and efficient and perform their intended task admirably.

These system ships have a standard communications array a white noise broadcaster, and an emergency beacon and receiver which most pirates use to lure ships to them. They have two tractor beam units which can allow them to move up to ten tons of cargo, and have two retractable cargo cranes with a retractable top opening cargo hatch. Each Cargo transport carries 2 work pods in external docking pods and have 4 escape pods set in a bay near the crew quarters and the main airlock. They come with 4 heavy duty labor robots and two standard labor robots to help load and unload cargo.

Standard Cargo Carrier (Pirate Version)

Size: Gargantuan **Cost:** n/a

Combat modifier: +2 **HP:** 70
Armor: 12 **DR:** 15
Defenses: Duralloy armor coat, Reflective paint (-2pts/die from lasers, -1pt/die from plasers), Damage suppression systems (-1pt/die from damage)

Defensive shields: Defensive Shield (Class C) **points/round:** 10 **Maximum points/absorbed:** 40

Weapon: Standard laser cannon **Range:** 10 **Fire Arc:** Swivel mounted (top) **Damage:** 6d8
Weapon: Electron batteries (2) **Range:** 5 **Fire Arc:** Rear mounted (bottom) **Damage:** 3d6

Engine type: Ion/gravity flux (type F) **Maneuverability:** +6 **Stealth:** 14
Atmospheric: Escape velocity **Acc/Dec:** 3 **Cruise:** 6
FTL drive type: none **Ly/day:** n/a

Life support capacity: 100
Power plant type: B
Cargo: 5,000 tons

Sensor suite: Type A
Surplus seu/day: 100

Range: 10au
Storage capacity: 500
Consumables: 1 month

Crew Complement: 1Pirate Captain, 3 pilots, 3 navigators, 3 communications officer, 3 sensory officer, 1 engineer, 6 technicians, 9 gunnery officers, 40 +2d10 Pirates

Notes: These are the oldest commercial ships in the Frontier, and some daring pirates have taken to capturing these ships and modifying them to serve as intimidating pirate ships. The Blood Moon Pirates in the rim were the first to add Duralloy armor coating to the ship's hull, reflective paint, and embedded damage suppression equipment to increase the ship's defensive capabilities. They then swapped out the ship's chemical engines for ion Engines in order to increase the ship's speed.

A Pirate cargo hauler has 2 escape pods near the crew quarters of the ship, and have 6 work pods housed in external docking ports. They have a retractable top mounted cargo bay door with two cargo cranes allowing them to move cargo around, and have a tractor beam unit mounted near the front of this bay that can haul up to 100 tons of cargo (or a Large ship). These ships have 6 vid-cams on their hull and have a modified communication array that includes standard LS communications, a subspace radio, Communications jamming equipment and a white noise broadcaster. Most of these ships have emergency beacons, and receivers which some pirates use to lure ships to them.

Starships

Bulk Cargo Transport (Pirate Version)

Size: Large

Cost: n/a

Combat modifier: +2

HP: 35

Armor: 14

DR: 24

Defenses: Light armor, Reflective paint (-2pts/die from lasers, -1pt/die from plasmas),

Defensive shields: Defensive Shield (Class E) **Points/round:** 20 **Maximum points/absorbed:** 80

Weapon: Light plaser cannon

Range: 8

Fire Arc: Swivel mounted (top)

Damage: 5d8

Weapon: Electron battery (2)

Range: 5

Fire Arc: Swivel mounted (bottom rear)

Damage: 3d6

Engine type: Ion/gravity flux (type F)

Maneuverability: +6

Stealth: 14

Atmospheric: Escape velocity

Acc/Dec: 3

Cruise: 6

FTL drive type: Tachyon (Type D)

Ly/day: 2ly/day

Life support capacity: 64

Sensor suite: Type A

Range: 10au

Power plant type: B

Surplus seu/day: 100

Storage capacity: 500

Cargo: 200 tons

Consumables: 3 weeks

Crew Complement: 1 Pirate captain, 1 pilot, 1 navigator, 1 communications officer, 1 sensory officer, 2 technicians, 1 engineer, 20+2d10 pirates

Notes: The blood moon Pirates of the Rim Coalition were the first to fully convert these cargo haulers from System ships to Starships, and in the process created a relatively powerful Pirate ship. They had to reinforce the system ship's hull and added light armor plate with reflective paint, to increase the ship's defensive capabilities and insure it could survive Void jumps. The Pirates also had to install the fastest FTL drive they could find that did not require a permit to install, and also install the necessary astrogation equipment as well. The Blood Moon Pirates discarded the ship's chemical engines for ion Engines to increase the ship's speed as well. These ships retain their general appearance but they're very reliable and efficient and perform their intended task admirably.

These system ships have a standard communications array a white noise broadcaster, and an emergency beacon and receiver which most pirates use to lure ships to them. They have two tractor beam units which can allow them to move up to ten tons of cargo, and have two retractable cargo cranes with a retractable top opening cargo hatch. Each Cargo transport carries 2 work pods in external docking pods and have 4 escape pods set in a bay near the crew quarters and

the main airlock. They come with 4 heavy duty labor robots and two standard labor robots to help load and unload cargo.

Corvette (Modified Pirate version)

Size: Large

Cost: n/a

Combat modifier: +8

HP: 30

Armor: 15

DR: 28

Defenses: Medium armor, Reflective hull (-2 pts/die from lasers, -1pt/die from plasmas), Damage suppression equipment (-1/die of damage)

Defensive shields: Defensive Shield (Type F) **Points/round:** 25 **Maximum points/absorbed:** 100

Weapon: Standard laser cannons (2) **Range:** 10 **Fire Arc:** Swivel mounted (top/bottom) **Damage:** 6d8
Weapon: Plasma battery (2) **Range:** 5 **Fire Arc:** rear mounted **Damage:** 3d10

Engine type: Ion/gravity flux (type F) **Maneuverability:** +6 **Stealth:** 14
Atmospheric: Escape velocity **Acc/Dec:** 3 **Cruise:** 6
FTL drive type: Tachyon (Type D) **Ly/day:** 2ly/day

Life support capacity: 100 **Sensor suite:** Type B **Range:** 2ly
Power plant type: B **Surplus seu/day:** 100 **Storage capacity:** 500
Cargo: 50 tons **Consumables:** 1 month

Crew Complement: 1Pirate Captain, 3 pilots, 3 navigators, 3 communications officer, 3 sensory officer, 1 engineer, 6 technicians, 12 gunnery officers, 20 +2d10 Pirates

Notes: These modified Corvettes represent one of the most common configurations used by the Blood Moon pirates in the Rim Coalition. They have converted many Corvette-class vessels that they hijacked from various Rim worlds. They have been designed using composite armor hulls with damage suppression equipment, imbedded in the armor plate (-1pt/die damage), and they have reflective hulls (-2 points from lasers and -1 from plasmas)

The Pirate corvette has a full communication array with communication jamming, encryption, and shielding, and has a white noise generator. They are equipped with 4 escape pods in a bay on the bottommost deck of the ship behind the ship's belly turret and the pods fire forward away from the ship. Each corvette has two side mounted launches in external docking pods, and these ships have two work pods.

Standard Cargo Carrier (Pirate Version)

Size: Gargantuan

Cost: n/a

Combat modifier: +2

HP: 80

Armor: 15

DR: 21

Defenses: Medium armor coat, Reflective paint (-2pts/die from lasers, -1pt/die from plasmas), Damage suppression systems (-1pt/die from damage)

Defensive shields: Defensive Shield (Class C) **points/round:** 10 **Maximum points/absorbed:** 40

Weapon: Standard laser cannon **Range:** 10 **Fire Arc:** Swivel mounted (top) **Damage:** 6d8
Weapon: Electron batteries (2) **Range:** 5 **Fire Arc:** Rear mounted (bottom) **Damage:** 3d6

Engine type: Ion/gravity flux (type F) **Maneuverability:** +6 **Stealth:** 14
Atmospheric: Escape velocity **Acc/Dec:** 3 **Cruise:** 6
FTL drive type: Tachyon (Type D) **Ly/day:** 2ly/day

Life support capacity: 100 **Sensor suite:** Type A **Range:** 10au
Power plant type: B **Surplus seu/day:** 100 **Storage capacity:** 500
Cargo: 5,000 tons **Consumables:** 1 month

Crew Complement: 1Pirate Captain, 3 pilots, 3 navigators, 3 communications officer, 3 sensory officer, 1 engineer, 6 technicians, 9 gunnery officers, 40 +2d10 Pirates

Notes: The Captain of the Blood Moon Pirates took one of these aging System ships and converted it into a formidable Starship, which he used to terrorize the Rim Coalition. In order to accomplish this the Captain reinforced the aging ship's superstructure and frame, and added medium grade armor plate, with damage suppression equipment embedded in it, and over that had a reflective coat put on. These modifications insured not only its ability to defend itself in a fight, but that the ship could survive Void jumps. The Pirates also had to install the fastest FTL drive they could find that did not require a permit to install, and also install the necessary astrogation equipment as well. The Blood Moon Pirates discarded the ship's chemical engines for ion Engines to increase the ship's speed as well.

The Blood moon Pirate's modified Cargo hauler has 2 escape pods near the crew quarters of the ship, and have 6 work pods housed in external docking ports. The ship has a retractable top mounted cargo bay door with two cargo cranes allowing them to move up to 40 tons of cargo/hour, and the ship has a tractor beam unit mounted near the front of this bay that can haul up to 100 tons of cargo (or a Large ship). These ships have 6 vid-cams on their hull and have a modified communication array that includes standard LS communications, a subspace radio, Communications jamming equipment and a white noise broadcaster. Like most cargo haulers of this type the ship retains its emergency beacon, and receiver which the Blood moon Pirates often use to lure unsuspecting spaceships to them.



Sathar Spaceships

System Ships

Sathar Interceptor

Size: Small **Cost:** n/a

Combat modifier: +6 **HP:** 20
Armor: 14 **DR:** 28
Defenses: Light armor, Damage suppression equipment (-1pt/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasars)

Defensive shields: Defensive shield (Type C) **Points/round:** 10 **Maximum points/absorbed:** 40

Weapon: Disrupter batteries (2) **Fire Arc:** Wing mounted (fire linked) **Range:** 5 **Damage:** 3d12

Weapon: Retractable Seeker missile launcher **Fire Arc:** Forward firing (bottom)
Missile type: Seeker missile (4) **Range:** 5 **Damage:** 3d8

Engine type: Ion/gravity flux (type F) **Maneuverability:** +10 **Stealth:** 18
Atmospheric: Escape velocity **Acc/Dec:** 3 **Cruise:** 6
FTL drive type: none **Ly/day:** n/a

Life support capacity: 1 **Sensor suite:** Type A **Range:** 10au
Power plant type: A **Surplus seu/day:** 10 **Storage capacity:** 50
Cargo: 220lbs **Consumables:** 1 week

Crew Complement: 1 pilot

Notes: The Sathar Interceptor is a highly maneuverable fighter and is the most common fighter craft encountered by Spacefleet. These fighters have two wing mounted disruptor batteries that are fire-linked giving them impressive fire power. They also have the Sathar equivalent of seeker missiles mounted under the wings near their body which make them dangerous adversaries in a dogfight. These ships have reinforced hulls for additional protection for the pilot.

The Sathar Interceptor has a full communications array that includes standard LS communications, Subspace radio, and communications jamming, shielding and encryption modes. They have damage suppression equipment imbedded under their armored hulls (-1/die of damage), and have a reflective hull (-2 points/die from lasers/-1 point/die from plasars).

Sathar Bomber

Size: Small **Cost:** n/a

Combat modifier: +6 **HP:** 20
Armor: 14 **DR:** 28
Defenses: Light armor, Damage suppression equipment (-1pt/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasars)

Defensive shields: Defensive shield (Type C) **Points/round:** 10 **Maximum points/absorbed:** 40

Weapon: Retractable Seeker missile launcher **Fire Arc:** Forward firing (bottom)
Missile type: Seeker missile (4) **Range:** 5 **Damage:** 3d8

Weapon: Assault rocket launcher **Fire Arc:** Forward firing
Missile type: Assault rockets (6) **Range:** 5 **Damage:** 3d8

Engine type: Ion/gravity flux (type F) **Maneuverability:** +10 **Stealth:** 18
Atmospheric: Escape velocity **Acc/Dec:** 3 **Cruise:** 6
FTL drive type: none **Ly/day:** n/a

Life support capacity: 1
Power plant type: A
Cargo: 220lbs

Sensor suite: Type A
Surplus seu/day: 10

Range: 10au
Storage capacity: 50
Consumables: 1 week

Crew Complement: 1 pilot

Notes: The Sathar Bomber seems to be a modified Interceptor. It is still a highly maneuverable fighter but instead of having the traditional disruptor batteries these ships have two wing mounted Assault rocket launchers with three rockets/wing. This allows the Sathar to perform bombing runs while still being able to engage fighters with its seeker missiles. The Sathar Bombers have reinforced hulls for additional protection for the pilot.

The Sathar Bomber like the standard Interceptor has a full communications array that includes standard LS communications, Subspace radio, and communications jamming, shielding and encryption modes. They have damage suppression equipment imbedded under their armored hulls (-1/die of damage), and have a reflective hull (-2 points/die from lasers/-1 point/die from plasmas).



Starships

Sathar Viper Class Star Fighter

Size: Small

Cost: n/a

Combat modifier: +6

HP: 30

Armor: 14

DR: 32

Defenses: Light armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasmas)

Defensive shields: Defensive shield (Type C) **Points/round:** 10 **Maximum points/absorbed:** 40

Weapon: Disruptor battery (2)

Fire Arc: Wing mounted (fire linked)

Range: 5 **Damage:** 3d12

Weapon: Seeker missile launcher

Fire Arc: Forward firing

Range: 5 **Damage:** 3d8

Missile type: Seeker missiles (6)

Weapon: Proton torpedo launcher

Fire Arc: Rear mounted

Range: 10 **Damage:** 6d10

Missile type: Proton torpedoes (2)

Engine type: Ion/gravity flux (Mod F) **Maneuverability:** +12

Stealth: 18

Atmospheric: Escape velocity

Acc/Dec: 5

Cruise: 9

FTL drive type: Tachyon (Type E)

Ly/day: 3ly/day

Life support capacity: 1

Sensor suite: Type A

Range: 10au

Power plant type: A

Surplus seu/day: 10

Storage capacity: 50

Cargo: 220lbs

Consumables: 1 week

Crew Complement: 1 pilot

Notes: Rarely seen in the Frontier these Star fighters are a match for the best the Frontier can throw at them, and their pilots are fanatical to the point of being suicidal in accomplishing their master's objectives. These fighter craft have a full communications array that includes communications, jamming, shielding and encryption modes. They have damage suppression equipment imbedded under their armored hulls (-1/die of damage), and have a reflective hull (-2 points/die from lasers/-1 point/die from plasars). The Sathar Vipers have a miniature astrogation computer to allow the ship to make interstellar trips.

Sathar Corvette

Size: Large

Cost: n/a

Combat modifier: +8

HP: 40

Armor: 15

DR: 28

Defenses: Medium armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasars).

Defensive shields: Defensive shield (Type F) **Points/round:** 25 **Maximum points/absorbed:** 100

Weapon: Standard Disruptor cannons (2) **Fire Arc:** Swivel mounted (top/bottom) **Range:** 7 **Damage:** 4d10

Weapon: Plasma battery (2) **Fire Arc:** Rear mounted **Range:** 5 **Damage:** 3d10

Weapon: Retractable Proton torpedo launcher **Fire Arc:** Forward firing (bottom)

Missile type: Proton torpedoes (10) **Range:** 10 **Damage:** 6d10

Engine type: Ion/gravity flux (type F) **Maneuverability:** +8 **Stealth:** 14

Atmospheric: Escape velocity **Acc/Dec:** 3 **Cruise:** 6

FTL drive type: Tachyon (Type F) **Ly/day:** 4ly/day

Life support capacity: 100 **Sensor suite:** Type B **Range:** 20au

Power plant type: B **Surplus seu/day:** 100 **Storage capacity:** 500

Cargo: 50 tons **Consumables:** 6 month

Crew Complement: 60 (good quality: Initiative +2 Hit: +4 Skill: +4)

Notes: The assault on the Frontier by the Sathar has been led by fleets of these Starships. At first the Frontier Spacefleet thought this was the extent of the threat by the Sathar, but soon they realized that the Sathar seemed to have an almost limitless supply of these ships, and used them as the Frontier might use a standard fighter. They are among the smallest warships in the Sathar armada and are equipped so they can operate for extended periods in isolated systems far from their base of operations. They are designed with flight surfaces and are capable of atmospheric flight.

The Sathar Corvettes have composite armor hulls with damage suppression equipment, imbedded in the armor plate (-1pt/die damage), and they have reflective hulls (-2 points/die from lasers/-1 point/die from plasars). They have skin sensors and 6 cameras that are designed to detect intruders on the ship's hull.

These Sathar ships have a full communication array with communication jamming, encryption, interception, and shielding. This communications package also includes a white noise generator. It should be noted that Sathar ships do not have escape pods and that the Sathar would rather destroy their ships, rather than allow them to be captured.

Sathar Frigate

Size: Gargantuan

Cost: n/a

Combat modifier: +8

HP: 100

Armor: 15

DR: 23

Defenses: Medium armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from

lasers/-1 point/die from plasars)

Defensive shields: Defensive shield (Class E) **Points/round:** 20 **Maximum points/absorbed:** 80

Weapon: Standard Disruptor cannons (4) **Fire Arc:** Swivel mounted (top/bottom) **Range:** 5 **Damage:** 3d12

Weapon: Missile batteries (4) **Fire Arc:** Side firing (2/side)
Missile type: Standard (20 missiles) **Range:** 5 **Damage:** 2d8

Engine type: Ion/gravity flux (type F) **Maneuverability:** +3 **Stealth** 11
Atmospheric: n/a **Acc/Dec:** 3 **Cruise:** 6
FTL drive type: Tachyon (Type G) **Ly/day:** 5ly/day

Life support capacity: 200 **Sensor suite:** Type B **Range:** 20au
Power plant type: B **Surplus seu/day:** 100 **Storage capacity:** 500
Cargo: 50 tons **Consumables:** 1 month

Crew Complement: 100 (good quality: Initiative +2 Hit: +4 Skill: +4)

Notes: Sathar Frigates are the second most common type of ship in the Sathar fleet and are used to escort larger Sathar warships and provide a frontline defense against Frontier ships trying to attack the larger Sathar warships. Sathar have used these ships to great effect in their constant battles against the citizens of the Rim Coalition.

The Sathar's Frigates have medium grade armor and have good energy shielding. They have a reflective coatings (-2 points/die from lasers/-1 point/die from plasars) and each ship has damage suppression systems (-1pt/die damage). They are fitted with 6 cameras set to view key areas of the ship's hull and skin sensors to detect possible boarders.

These Frigates have an underside landing bay and carry four Sathar Infiltrators, and two Sathar bombers. These Starships have a tractor beam unit that allows them to immobilize and draw in ships up to Large size, and they carry two ten passenger launches in side docking blisters to move boarding parties onto captured ships. They have a full communications array including communication jamming, encryption, interception, and shielding, and have a white noise broadcaster array.

Sathar Destroyers

Size: Gargantuan **Cost:** n/a

Combat modifier: +8 **HP:** 100

Armor: 16 **DR:** 25

Defenses: Heavy armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasars)

Defensive shields: Defensive shield (Class E) **Points/round:** 20 **Maximum points/absorbed:** 80

Weapon: Standard Disruptor cannons (4) **Fire Arc:** Swivel mounted (top/bottom) **Range:** 5 **Damage:** 3d12

Weapon: Missile batteries (4) **Fire Arc:** Side firing (2/side)
Missile type: Standard (20 missiles/battery) **Range:** 5 **Damage:** 2d8

Weapon: Assault rocket launcher **Fire Arc:** Forward firing
Missile type: Assault rocket (10) **Range:** 5 **Damage:** 3d8

Weapon: Mine launcher **Fire Arc:** Rear mounted
Missile type: Mines (10) **Range:** 1 **Damage:** 2d6

Engine type: Ion/gravity flux (Type G) **Maneuverability:** +3 **Stealth** 11
Atmospheric: n/a **Acc/Dec:** 4 **Cruise:** 8
FTL drive type: Tachyon (Type G) **Ly/day:** 5ly/day

Life support capacity: 400 **Sensor suite:** Type B **Range:** 20au

Power plant type: B
Cargo: 50 tons

Surplus seu/day: 100

Storage capacity: 500
Consumables: 1 month

Crew Complement: 200 crewmen (good quality: Initiative +2 Hit: +4 Skill: +4)

Notes: The Sathar Destroyers have been devastatingly effective in battle against the Flight (The Rim equivalent of Spacefleet). The Sathar used these ships as their main command ships when they first began their assault on the Frontier, but as the Frontier started engaging the Sathar with larger ships the Sathar have retaliated in kind. The Sathar still use these ships in many of their raids into the Rim and outer systems, but have been sending larger ships into the Central and Core systems.

Sathar Destroyers are heavily armored and have good energy shielding. They are fitted with 6 cameras at strategic points along their hull and use skin sensors to detect intruders on their hull. These Starships have reflective coatings (-2 points/die from lasers/-1 point/die from plasars) and each ship has damage suppression systems (-1pt/die damage).

Each Sathar Destroyer has two docking bays where they carry a total of five Sathar Infiltrators, and 5 Sathar Bombers. These ships have a tractor beam allowing them to immobilize and draw in ships up to Large size, and they have two ten passenger launches in external docking ports to move troops onto captured ships. They have a full communications array including communication jamming, encryption, interception and shielding, and have a white noise broadcaster array.

Sathar Minelayer

Size: Gargantuan

Cost: n/a

Combat modifier: +8

HP: 100

Armor: 16

DR: 25

Defenses: Heavy armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasars).

Defensive shields: Defensive shield (Class E) **Points/round:** 20 **Maximum points/absorbed:** 80

Weapon: Standard Disruptor cannons (2) **Fire Arc:** Swivel mounted (top/bottom) **Range:** 5 **Damage:** 3d12

Weapon: Mine launcher (20)

Fire Arc: Rear mounted (10 top, 4 on each side, 2 on bottom)

Missile type: Mines (10/launcher)

Range: 1 **Damage:** 2d6

Engine type: Ion/gravity flux (type F) **Maneuverability:** +3

Stealth: 11

Atmospheric: n/a

Acc/Dec: 3

Cruise: 6

FTL drive type: Tachyon (Type G)

Ly/day: 51y/day

Life support capacity: 200

Sensor suite: Type B

Range: 20au

Power plant type: B

Surplus seu/day: 100

Storage capacity: 500

Cargo: 50 tons

Consumables: 1 month

Crew Complement: 100 crewmen (good quality: Initiative +2 Hit: +4 Skill: +4)

Notes: The Sathar have rarely used these starships in the Frontier because they usually do not have the time to deploy enough mines to seal off a planet before the UPF Spacefleet arrive but that hasn't stopped the sathar from trying, and they were almost successful in sealing off the Humma home world in the past. These large ships have heavy armor though they do not carry many weapon systems and depend on escort ships for protection. The Sathar Minelayers however are designed with good energy shielding to provide them extra protection while they set about sealing off a planet.

The Sathar usually set 6 video cameras and skin sensors on the minelayer's hull in order to detect intruders. A Minelayer has a reflective coating (-2 points/die from lasers/-1 point/die from plasars) and has damage suppression systems (-1pt/die damage) all which make them hardy craft.

Each Sathar Minelayer holds five times the number of mines they can readily deploy (1,000 mines) in their cargo bays

and most of the ship's crew have the task of reloading the ship's mine launchers when they have deployed their load. This process usually takes about ten hours since the mines have to be primed and armed before being loaded onto their launcher.

The Minelayer's communications array includes communication jamming, and shielding, and these ships have been outfitted with a white noise broadcaster. Unlike most Sathar vessels reports suggest that these starships have the Sathar equivalent of six workpods in docking blisters between the ship's crew compartment and engineering section.

Sathar Assault Transports

Size: Gargantuan

Cost: n/a

Combat modifier: +8

HP: 100

Armor: 16

DR: 25

Defenses: Heavy armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasmas).

Defensive shields: Defensive shield (Type H) **Points/round:** 40 **Maximum points/absorbed:** 160

Weapon: Assault plasmer cannon

Fire Arc: Forward firing (top)

Range: 20 **Damage:** 8d20

Weapon: Standard Disruptor cannons (2)

Fire Arc: Swivel mounted (top/bottom)

Range: 5 **Damage:** 3d12

Weapon: Seeker missile launcher (4)

Fire Arc: Forward firing

Missile type: Seeker missiles (20/launcher)

Range: 5 **Damage:** 3d8

Weapon: Missile launchers (6)

Fire Arc: Swivel mounted (bottom)

Missile type: Missiles (10/launcher)

Range: 5 **Damage:** 2d10

Engine type: Ion/gravity flux (type F)

Maneuverability: +3

Stealth: 11

Atmospheric: n/a

Acc/Dec: 3

Cruise: 6

FTL drive type: Tachyon (Type G)

Ly/day: 51y/day

Life support capacity: 2,000

Sensor suite: Type B

Range: 20au

Power plant type: B

Surplus seu/day: 100

Storage capacity: 500

Cargo: 0 (1,000 tons if empty)

Consumables: 6 months

Crew Complement: 100 crewmen (good quality: Initiative +2 Hit: +4 Skill: +4)

Notes: The Sathar do not usually deploy ground troops until they have completely crushed an enemy's space fleet, and the only time they have ever deployed troops was in their devastating war against the Humma in the Rim Coalition. The Sathar's Assault transports in that war quickly dispatched hordes of genetically engineered creatures and Sathar soldiers onto the planet and would have won against any other enemy but the Humma who managed to fight off the invaders for several weeks before the Flight and UPF arrived with assistance.

The Sathar's Assault transports are mobile command platforms that are built using heavy armor to provide them with exceptional protection against enemy weapons. They have reflective hulls (-2 points/die from lasers/-1 point/die from plasmas), and have damage suppression equipment (-1pt/die damage). Set into their hulls, these starships have 12 cameras to provide detection of enemies who may be trying to breach their hulls. These ships have excellent defensive shielding, and have as part of their communications array communication jamming, interception and shielding capabilities as well as a white noise broadcaster.

Each Assault carrier generally carries 1,000 Sathar soldiers, and up to 900 war-beasts kept in cramped cages. The Assault Carrier's massive cargo bays hold 20 Sathar hover tanks and whatever equipment they need to support their troops in case of prolonged assaults.

Sathar Light Cruiser

Size: Colossal

Cost: n/a

Combat modifier: +12 **HP:** 150
Armor: 16 **DR:** 22
Defenses: Heavy armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasars)

Defensive shields: Defensive shield (Type I) **Points/round:** 50 **Maximum points/absorbed:** 200

Weapon: Turbo laser cannon (3) **Fire Arc:** Swivel mounted (forward top) **Range:** 14 **Damage:** 10d10
Weapon: Disruptor battery (4) **Fire Arc:** Swivel mounted (rear) **Range:** 5 **Damage:** 3d10
Weapon: Proton battery (4) **Fire Arc:** Side mounted **Range:** 5 **Damage:** 3d20

Weapon: Assault rocket launcher **Fire Arc:** Forward firing
Missile type: Assault rocket (20) **Range:** 5 **Damage:** 3d8

Weapon: Torpedo tubes (4) **Fire Arc:** Side mounted (2/side)
Missile type: Plasma torpedoes (10/launcher) **Range:** 10 **Damage:** 6d6

Engine type: Ion/gravity flux (type F) **Maneuverability:** +0 **Stealth:** 10
Atmospheric: n/a **Acc/Dec:** 3 **Cruise:** 6
FTL drive type: Tachyon (Type G) **Ly/day:** 5ly/day

Life support capacity: 2,000 **Sensor suite:** Type C **Range:** 40au
Power plant type: D **Surplus seu/day:** 1,000 **Storage capacity:** 5,000
Cargo: 1,000 tons **Consumables:** 6 months

Crew Complement: 700 crewmen (excellent quality: Initiative +4 Hit: +8 Skill: +6)

Notes: The Sathar have yet to engage the Frontier in prolonged combat with their Light cruisers, but several long range UPF patrols have reported sighting massive Sathar star craft that they have classified as light cruisers moving along the borders of the Central systems, and several of these patrols have been forced to fire on these ships in order to escape capture, but in each of these engagements the few surviving UPF ships report being extremely fortunate to have survived, and have stated that their survival was because the Sathar didn't bring all their weapons to bear on them. This seems to go counter with the usual Sathar tactics which has led to much speculations about what the Sathar may be up to.

These Sathar starships are crewed by some of the most battle hardened Sathar and their ships are heavily armored, and well shielded. Like all Sathar ships their Light Cruisers have reflective hulls (-2 points/die from lasers/-1 point/die from plasars) and have with damage suppression equipment (-1pt/die damage). Each Sathar Light Cruiser has 24 cameras set to view key locations on the ship's hulls, and skin sensors elsewhere to detect enemy attempts to breach the ship's hull.

A Sathar Light cruiser has two landing bays (one on either side). Each of these bays holds 36 Sathar Bombers, and a squadron of 30 Sathar fighters. These Starships have a full communications array including communication jamming, encryption, Interception and shielding, and have a white noise broadcaster. Each Sathar Light cruiser has two Tractor beam units one near each docking bay that enables them to immobilize any two ships of up to Huge size, and can draw them to their armored airlocks or landing bays if empty to allow fully armed troops to enter the captured ship.

Sathar Heavy Cruiser

Size: Colossal II **Cost:** n/a

Combat modifier: +12 **HP:** 200
Armor: 16 **DR:** 20
Defenses: Heavy armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasars).

Defensive shields: Defensive shield (Type I) **Points/round:** 50 **Maximum points/absorbed:** 200

Weapon: Assault plaser cannon **Fire Arc:** Swivel mounted (top/forward) **Range:** 20 **Damage:** 8d20
Weapon: Turbo laser cannon (3) **Fire Arc:** Swivel mounted (rear/top) **Range:** 14 **Damage:** 10d10
Weapon: Disruptor cannons (4) **Fire Arc:** Swivel mounted (top/bottom) **Range:** 5 **Damage:** 3d12

Weapon: Disruptor battery (6) **Fire Arc:** Swivel mounted (rear) **Range:** 5 **Damage:** 3d10

Weapon: Torpedo tubes (8) **Fire Arc:** Side mounted (2/side)
Missile type: Plasma torpedoes (10/launcher) **Range:** 10 **Damage:** 6d6

Engine type: Ion/gravity flux (type F) **Maneuverability:** -2 **Stealth:** 10
Atmospheric: n/a **Acc/Dec:** 3 **Cruise:** 6
FTL drive type: Tachyon (Type G) **Ly/day:** 51y/day

Life support capacity: 2,000 **Sensor suite:** Type C **Range:** 40au
Power plant type: D **Surplus seu/day:** 1,000 **Storage capacity:** 5,000
Cargo: 1,000 tons **Consumables:** 6 months

Crew Complement: 1,400 crewmen (excellent quality: Initiative +4 Hit: +8 Skill: +6)

Notes: The Sathar have never deployed these massive ships in combat against the UPF and their inclusion in these rules is for Administrators who wish to escalate the Sathar war. These massive Sathar warships are crewed by some of the most skilled, and loyal Sathar. These heavily armored, well shielded ships have yet to prove themselves in battle against the UPF but they should be tough enough to stand up against almost anything the UPF has.

Heavy Cruisers have two landing bays (one on either side) and each bay holds five Sathar Corvettes, and a squadron of 60 Sathar fighter craft. Sathar Heavy cruisers have reflective hulls (-2 points/die from lasers/-1 point/die from plasars), with damage suppression equipment (-1pt/die damage) embedded in it. These ships have heavy composite armored hulls, and have reinforced engine cowling.

These Sathar warships communications array has communication jamming, encryption, Interception, and shielding capabilities as well as a white noise broadcaster. Each Heavy cruiser has two Tractor beam units that enable them to immobilize two ships of up to Gargantuan size, and draw them to their armored airlocks. This allows the Cruiser to deploy teams of heavily armed and armored troopers to board the captured ship.

Sathar Assault Carrier

Size: Colossal II

Combat modifier: +12 **HP:** 200
Armor: 16 **DR:** 25
Defenses: Heavy armor, Damage suppression equipment (-1/die of damage), Reflective hull (-2 points/die from lasers/-1 point/die from plasars)

Defensive shields: Defensive shield (Type I) **Points/round:** 50 **Maximum points/absorbed:** 200

Weapon: Disruptor battery (4) **Fire Arc:** Swivel mounted (rear) **Range:** 5 **Damage:** 3d10
Weapon: Proton battery (4) **Fire Arc:** Swivel mounted (side) **Range:** 5 **Damage:** 3d20

Weapon: Torpedo tubes (8) **Fire Arc:** Side mounted (2/side)
Missile type: Plasma torpedoes (10/launcher) **Range:** 10 **Damage:** 6d6

Engine type: Ion/gravity flux (type F) **Maneuverability:** +3 **Stealth:** 10
Atmospheric: n/a **Acc/Dec:** 3 **Cruise:** 6
FTL drive type: Tachyon (Type G) **Ly/day:** 51y/day

Life support capacity: 2,000 **Sensor suite:** Type C **Range:** 40au
Power plant type: D **Surplus seu/day:** 1,000 **Storage capacity:** 5,000
Cargo: 500 tons **Consumables:** 6 months

Crew Complement: 2,000 crewmen (excellent quality: Initiative +4 Hit: +8 Skill: +6)

Notes: As with the Sathar Heavy cruisers above these warships have yet to be deployed against the UPF and their inclusion in these rules is for Administrators who wish to escalate the Sathar war. These warships serve as mobile

bases for squadrons of Sathar fighters. A Sathar Assault Carrier transports fighters to the scene of a battle, launches them and after the battle can recover any surviving Sathar ships, though it is not uncommon for the Assault carrier to just open fire on the survivors especially if the battle went against the Sathar.

A Sathar Assault carrier has four huge docking bays set two on either side of the ship. Three of the docking bays are designed to hold 300 fighter ships while the fourth bay is usually left empty but can hold any ship weighing up to 500 tons (gargantuan size). The Assault carrier holds 1,000 tons of military grade spacecraft equipment and is treated like a mobile shipyard capable of repairing any ship it can house as if it were docked at a construction yard. Most of the Carrier's crew is either fighter pilots or Spacecraft engineers, with whatever support crews are needed to keep the ships it houses in top shape. Each Sathar Assault carrier has ten tractor beam units, each one capable of immobilizing a ship of up to Gargantuan size and drawing into one of the ship's cavernous docking bays.

These Starships are heavily armored, and have good defensive shields to provide them protection after they launch their fighters. Sathar Assault Cruisers have reflective hulls (-2 points/die from lasers/-1 point/die from plasmas), with damage suppression equipment (-1pt/die damage). These Warships have six Sathar work pods in external docking blisters that are accessible from the spacecraft's engineering section. Like all Sathar warships these star craft have a communications station has communication jamming, encryption, and shielding, and have a white noise broadcaster array.



Section Four: Spacefleet rules

The United Planetary Federation Spacefleet or just Spacefleet as it is commonly called was formed to defend the races of the Frontier from all external foes. The fleet has been equipped with a series of fast and modern ships, that are either deployed in orbit around most of the important worlds in the Core, or can be found in taskforces of varying size and composition patrolling Frontier space. The Rim coalition has its own Spacefleet known as the Flight which is smaller in size, but most of the rules here can be applied to the Rim's fleet as well.

Gollwin Academy

Spacefleet officers receive their training at the Gollwin Academy, which is the fleet war college. The academy is a huge Space station that within the vicinity of Prenglar. It offers a two year program in the tactics and strategy of interstellar combat. Its graduates assume the rank of Junior Lieutenants on Spacefleet vessels.

The academy has a fine reputation for graduating skilled and effective leaders. Each graduate is treated as a first level hero with skills that reflect his training at the academy, (Piloting, Astrogation, Weapons: Gunnery, etc.). The program of instruction is rigorous, and only highly qualified individuals can gain admission to the school. To qualify the character must have a score of 12 or better in two of his Attributes and no more than one attribute below 10.

Spacefleet Enlisted Personnel

Although the officers of the Spacefleet represent some of the finest individuals in the Frontier, the same cannot be said for the crews of Spacefleet ships.

The enlisted members of the fleet come from all walks of life. The fleet always is short of crew members, so the requirements for enlistment are not rigorous. Very little checking is done regarding a crew member's background or abilities; consequently, a great amount of galactic riffraff has found a home in the crew's quarters of Spacefleet vessels. Many of these crews become fine fighting units; the combat record of the Spacefleet is impressive.

Occasionally, however, a charismatic bully will win the respect or inspire the fear of his mates to the point of inciting a mutiny. More than one Spacefleet vessel has dumped its officers into space and disappeared to the fringes of the Frontier to embark on a career of piracy and plunder.

Careers in the Spacefleet

If the Administrator wants player character officers in his campaign, characters should be allowed to have applied to the Gollwin Academy and graduated the course before the game begins, so long as they meet the attribute requirements listed above. It should be noted that no character who has been identified as having committed an illegal act will ever be admitted to the academy. Characters who start the campaign with this background begin play with the rank of Junior Lieutenants and may advance in rank by earning experience points to gain levels. The Level requirements for each rank in Spacefleet are as follows:

Rank	Level	Rank	Level
Junior Lieutenant	1	Captain	10
Lieutenant	3	Commodore	12
Fleet Lieutenant	5	Rear Admiral	14
Lieutenant Commander	7	Admiral	16
Commander	9	Fleet Admiral	20

Officers in the Spacefleet do not earn experience points for "passing time." They earn points for doing their jobs well; bonuses may be awarded at the Administrator's discretion. For NPC's unless the character performs a truly heroic act, promotions will come every one or two years in wartime, and much less frequently during times of peace.

Command: As mentioned earlier, Spacefleet enlisted personnel are not always the most pleasant and cooperative types. If a character is in charge of enlisted NPCs, his Reputation score becomes very important. Enlisted NPCs will obey most orders automatically, if the officer expresses it frankly and fairly and it is a basically mundane order. If the order requires the NPC to risk his life, or is expressed arrogantly or insultingly, the NPC will obey the order only if he passes a morale check. The officer should receive a +1 modifier for each level of his rank. A Fleet Lieutenant, for example, gets a bonus of +3 to any morale checks his crew must make to follow his orders. As usual, this rule can be modified or disregarded by the Administrator.

Section Five: Playing on a Board

While the Star Frontiers rules have been designed to be played without needing a specially designed board, or miniatures spacecraft engagements can actually be more fun if using a Board, and miniatures or counters. Some specialty shops that cater to gamers have large boards or mats with the appropriate sized hexes for playing out engagements and online sites like <http://www.starfrontiersman.com> have downloadable counters or Miniatures that can be used for playing out Star Frontiers space battles.

When using a board to play out a Star Frontiers combat the sequence of play does not change from what is presented in the combat section of this book and is summarized below:

- 1) Check for surprise and resolve surprise attacks if surprise is indicated.
- 2) Declarations of any feats that are taken before Initiative, resolve any effects that extend for more than one round
- 3) Roll initiative for all ships that are taking actions in that round
- 4) All Ships with initiative take their actions (attacking, using feats etc.) and all damage rolls and effects are applied on their targets.
- 5) All remaining Ships that rolled initiative and lost may now take their actions (attacking, using feats etc.) and all damage rolls and effects are applied on their targets.
- 6) Any Space craft that held actions and haven't moved may do so at this point. If no other actions remain a new round begins starting with step 2.

However there are a few additional rules when using a board to play out encounters.

Hexes: Each hex on the board does not represent an actual distance, and using any effect that is not an attack such as a white noise generator or using a communications interception system is assumed to affect an area 10-hexes around the ship employing it. This is not an accurate assessment of distance it is merely a rule to make playing on the board quick and fun.

Movement: At the beginning of the game all ships on the board move a number of hexes equal to their Acceleration rating, and every round before initiative is rolled they move a number of hexes equal to their current speed. The players may at this point use their Acceleration score to increase their speed or decrease it by one hex per point of Acceleration that they have, or may expend points of Acceleration to change their ship's facing by one side per point used.

Weapon ranges: All weapon ranges are treated as the number of hexes between them and their target, and depending on the description of the weapon it may have a restriction as to which direction the opponent has to be in to be attacked. Forward firing weapons only fire straight in front of the spacecraft while swivel mounted weapons can fire at any opponent not behind the ship unless the weapons face the rear of the ship.

Special weapons: Mines are special weapons that do not move but affect any ship that enters the hex that they are in or a radius of two hexes if the range notes it affecting 2 hexes. A marker should be placed in any hex where a mine has been placed (a small piece of paper with an M will serve this purpose).

Repairing battle damage: Every 5th round of combat before initiative is rolled and after each ship has been moved on the board allow every player to make repair rolls as listed in the repair rules, and make whatever changes are needed on his ships, before proceeding with combat. Again this is an abstract rule not an actual measure of time. It is included to increase the fun of the game.

Special rules

The following rules can be included in the board game to increase the challenge of playing out an engagement using these rules.

Maximum number of ships allowed

For ease of play each player should control no more than 20 ships on the board at one time. Occasionally however players wish to simulate large scale engagements with hundreds of ships. To simulate such encounters each counter could represent a set number of spacecraft of the same type. Combat proceeds as normal as if the players were dealing with one ship but the affects apply to all the ships in the grouping, so that is a ship is destroyed it represents all the ships in that grouping being destroyed. This again may seem arbitrary and incredibly unlikely but it is an easier way to simulate such massive battles without resorting to having hundreds of counters on the board and keeping track of hundreds of individual ships.

Launching ships

Many spaceships, especially warships, and space stations are described as carrying smaller ships which they may deploy at the beginning of any round before initiative is rolled. However only a certain number of ships may be deployed based on the size of the ship or station carrying the ships, and only up to the maximum number of ships that can be had on the board at one time.

A ship can deploy one ship per size category that it is with small ships being unable to deploy any ships, Medium ships being able to deploy one ship, Large ships deploying 2 ships and so on. Deployed ships can only move up to ½ their Acc (Acceleration) on the round they are deployed and make any attacks or take any actions at the end of the round after all the other ships already in play have taken their actions. In the round after they are deployed they can act as normal.

Stacking Counters

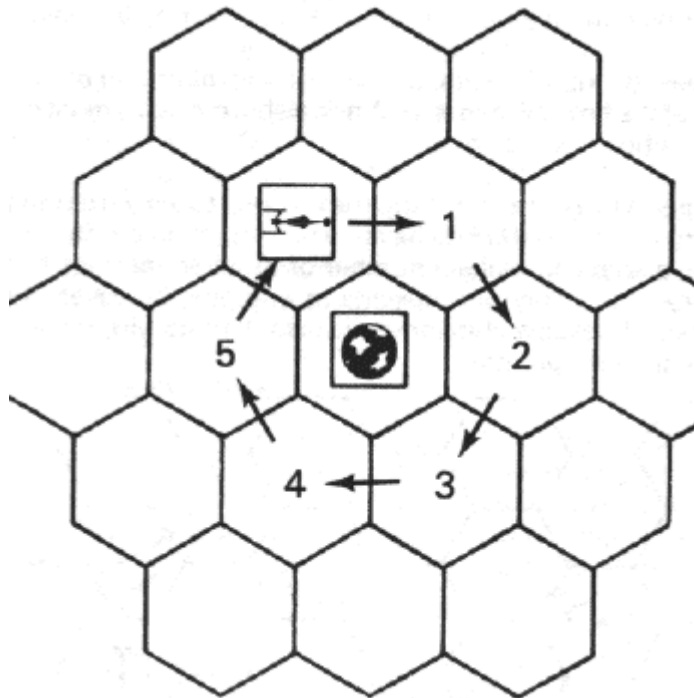
When playing small engagements any number of ships can be in one hex at the same time. Ships can shoot at other ships in the same hex without penalty.

Planets

A hex that contains a planet counter is blocked. No ship can move into or through that hex. The planet also blocks shots if the shortest path from the attacker to the target must be traced through the planet's hex.

Orbiting Planets

Any ship that starts its move in a hex next to a planet can orbit that planet. The player simply announces before initiative is rolled that the ship is orbiting the planet. A ship that is orbiting a planet has a speed of zero. However, the ship automatically moves one hex around the planet each turn. The direction of the orbit (clockwise or counterclockwise) is up to the player who controls the ship. Once it is established, the direction cannot be changed unless the ship leaves orbit and returns to start a new orbit in the opposite direction. The ship in the illustration is orbiting clockwise. The numbers show how many turns it will take the ship to move from its starting hex to the various hexes around the planet. It will return to its starting hex in six turns.

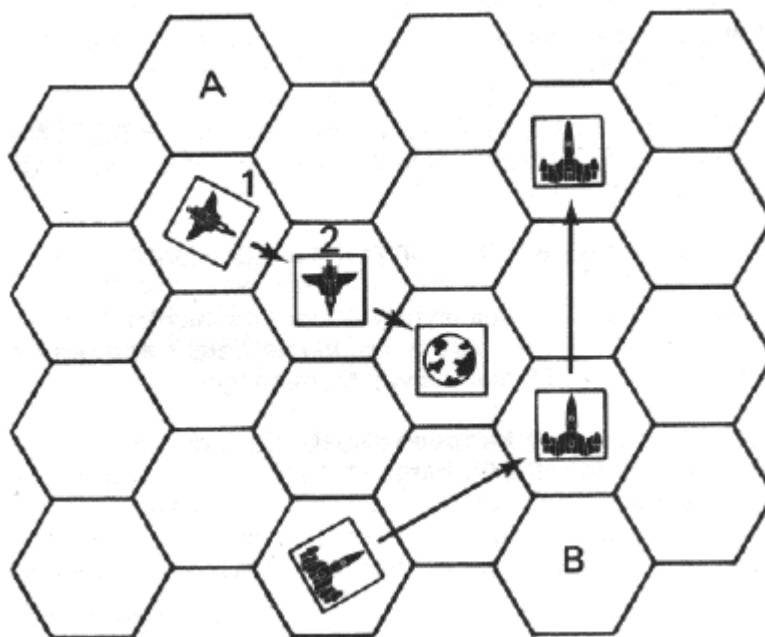


Because a ship in orbit has a speed of zero, it can rotate to face any hex side during its movement. The ship can rotate this way even if it leaves orbit during the turn. If the ship leaves orbit, it still has its full Acc (Acceleration score) to use during its move.

Optional Rule: Gravity

A ship that is traveling straight toward a planet may get caught in the planet's gravity well. A planet's gravity extends into the six hexes surrounding the planet. Any ship that enters one of these hexes by crossing the hex side directly opposite the planet's surface will be unable to pull away from the planet's gravity. The ship will crash into the planet and be totally destroyed. This is illustrated in the diagram below on the following page.

Moving Through Gravity Wells: A ship that moves through one of the six hexes surrounding a planet will have its facing changed by the planet's gravity. The ship's facing will be changed 60 degrees (one hex side) as the ship passes the planet. This effect is illustrated in the Gravity Diagram below. If a ship uses its Acc (Acceleration) to make a facing change away from the planet as it flies through the surrounding hexes, it can continue past on a straight course. The maneuver cancels the effect of the planet's gravity.



Ship A entered the planet's gravity well while headed straight toward the planet. Even if it turns in hex 2, it cannot escape the planet's gravity and will crash into the planet. Ship B is moving through the planet's gravity well. The planet's gravity changes the ship's course by turning it one hex side to the left. If the ship does not counter this by turning to the right, it will continue moving along its new course.

Space Station

These are large outposts that orbit planets. A space station has no engines to move itself; it simply serves as a base of operations for other ships. Any ship can dock at a space station by entering the station's hex and stopping there. At the end of the round, the ship's counter is placed under the station's counter to show that it has docked. As long as the ship remains there it is linked to the station, and people and supplies can move back and forth freely. The ship can leave the station at round before initiative is rolled but the player must sacrifice his initiative modifier for doing so. When the station moves, the ship that is leaving does not move with the station. It can move normally expending points up to its standard Acc for the round.

A docked ship can use its battery weapons to help defend the station. A docked ship cannot fire any forward-firing weapons, or missile weapons.

An attacker must declare whether his ship is firing at the space station or at a ship that is docked with the station. Any docked ship except fighters and assault scouts can be attacked by enemy ships. If a station is destroyed while ships are

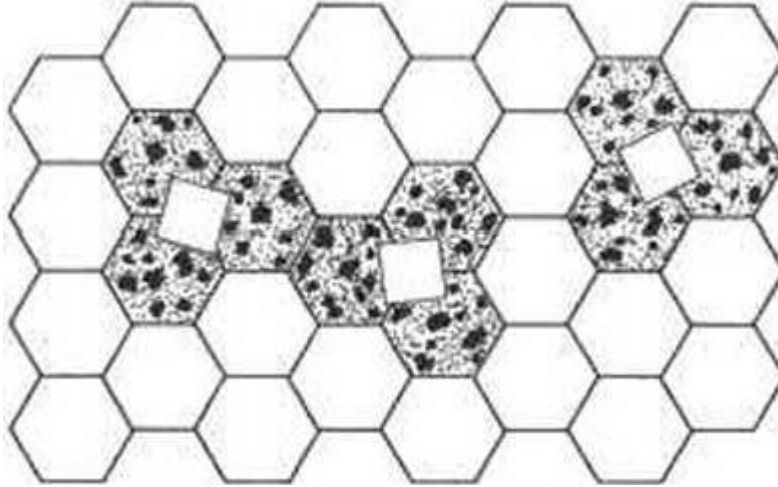
docked at it, each docked ship takes points of damage equal to one-half of the station's original hull points. If a ship is destroyed while docked, the station takes points of damage equal to one-half of the ship's original hull points.

ASTEROID BELTS

Interstellar and intra-system travel routes always bypass the hazardous areas of asteroid belts. The large amount of rock and rubble in these areas makes them very perilous for space ships. Mining operations and outlaw hideouts are sometimes located among asteroids, however.

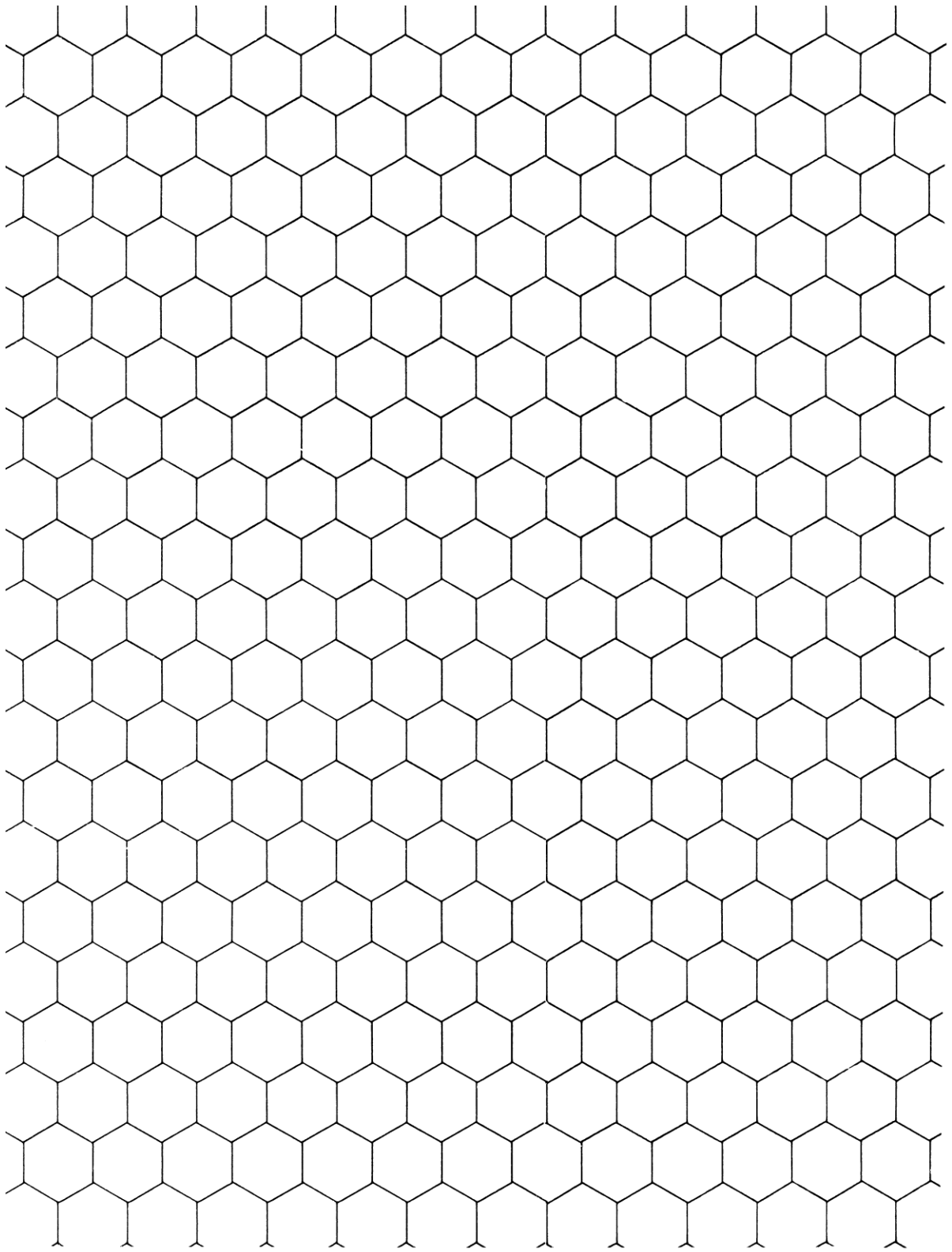
Marking Asteroids On The Map

Asteroid belts can be portrayed on the hex map used for the board game. Planetary counters and upside down counters are used to represent asteroids. Instead of placing these counters in a hex, however, place them at the junction of three hexes, as shown in the diagram.

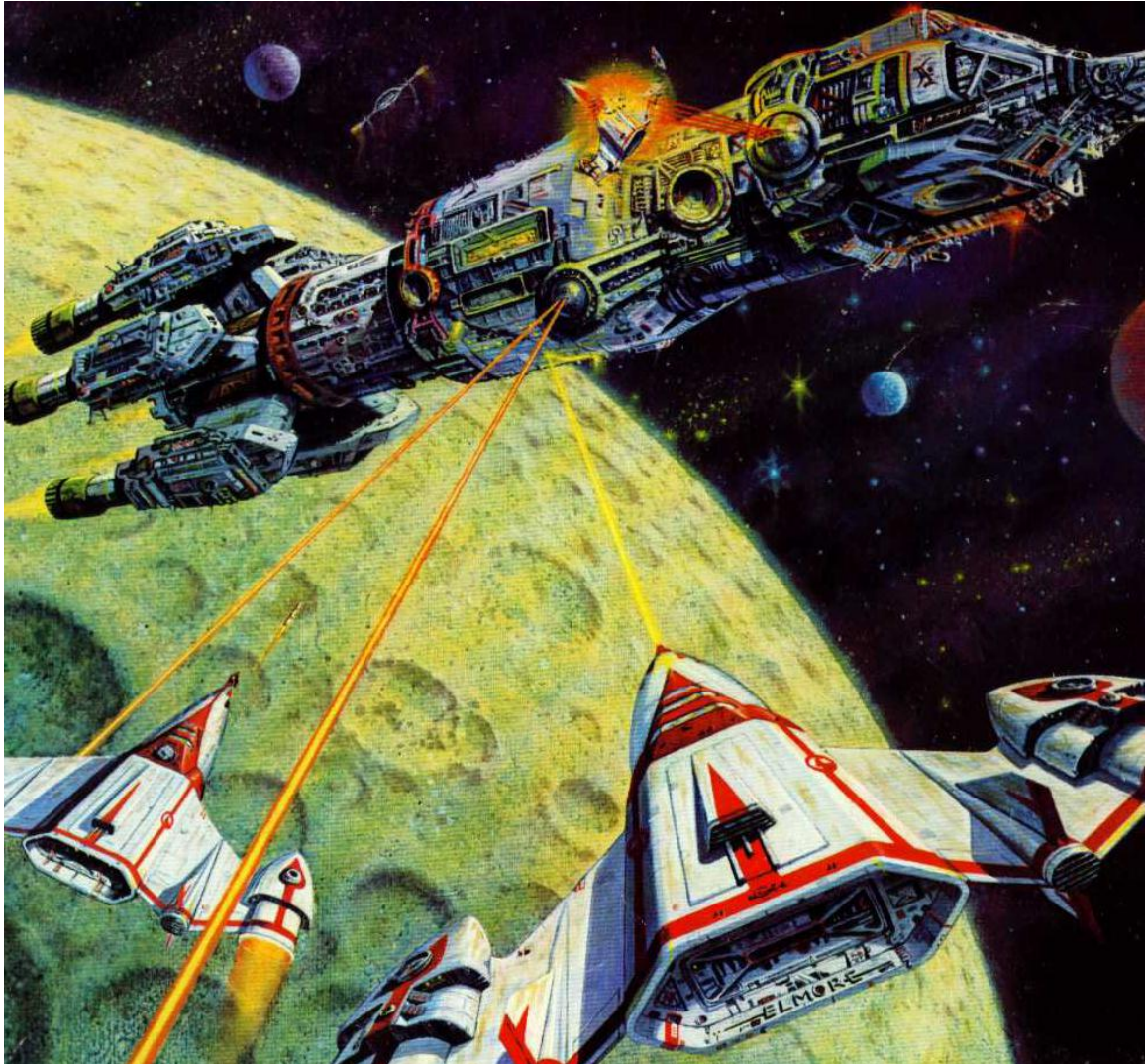


Asteroid counters can be as frequent or sparse as the Administrator desires. Each of the three hexes touching the counter has a high concentration of asteroids in it. These hexes are shaded in the diagram. Ships can travel through these hexes, but there is danger. Hexes that are not touched by asteroid counters are clear. They do contain asteroids, but these rocks are far enough apart that ships can easily fly between them. Occasionally, a hex can be touched by two asteroid counters. The asteroids are packed so densely in these hexes that any ship trying to move into or through that hex will be destroyed by hundreds of hurtling chunks of cold rock.

The asteroid belt itself can cover the whole map, if the Administrator referee desires, or only half of the map, or even a band down the middle of the map. Clear channels may offer many routes through the belt or lead to dead-ends where ships will be forced to pick their way through the asteroids. Rules for ships attempting to go through an asteroid field are detailed in their own section of the spacecraft rules.



STAR FRONTIERS[®]



Interstellar Adventures in the Star Frontier's Universe