SHIP CREATION

Out in space your ship is the only thing separating you from a quick, cold and incredibly cruel death. *Ship creation is not a matter to be taken lightly!* To start, print out a **Design Sheet** as well as a **Ship Sheet** and sharpen up your pencils. You might want to get some dice and a calculator while you're at it. Ship Sheets tend to get torn up along with the vehicles they represent so it is good to print your Design Sheet and Ship Sheet on separate pieces of paper.

It helps to have played the game a few times using sample ships before attempting to build your own. If this is your first ship, try using a sample ship as a guide to getting what you want and list its type as your ship's **Class**. It is far easier to modify a pre-existing ship than build a new one from scratch.

While it is good to think of your spacecraft as an actual vehicle, creation is mostly concerned with three factors: Price, Space and HP.

Price. Any number with a dollar sign is in credits. A number with a kc following it is in kilocredits. Each 1 kc is worth $1,000. To turn credits into kilocredits, multiply it by 0.001 (or just replace the first comma with a decimal point). A $1,960 is 1.96 kilocredits.

Space. Space is a measure of volume roughly equivalent to a cube with a 1 meter side. Your ship's Hull Size will tell you how much space you have to work with. While weight should be a factor in ship design, spacecraft almost always run out of space before weight becomes a problem so we ignore the weight of things.

HP. Also known as *heavy points*, hp tells us the amount of damage something can take before breaking. Ships have *Hull Points* which are measured in heavy points. Both are often referred to as HP. You may call them hit points, no one will mind. Each 1 HP is equal to 10 of the damage points used by characters.

Once you have the design sheet filled out, total up the **Price** and **Space** columns. You cannot have more stuff in the ship than the hull has room for, and you cannot have a greater price tag than what you have to spend. No ship builder in their right mind is going to even think about starting construction until you pony up at least half of that price first.

Hulls

To start, choose a Hull Size from the table below. A 1 is about the size of a shuttle craft while a 20 is as big as a battleship. Hull Size is used in multiple ways, such as finding the price of retractable landing gear. Any time you come upon an **HS** in the rules that is a reference to a ship's Hull Size.

Hull Size	Room	Airlocks	Construction Center
1	10	0	4
2	20	1	4
3	30	1	4
4	50	1	3
5	70	2	3
6	90	2	3
7	120	2	3
8	150	3	3
9	180	3	3
10	220	3	2
11	260	4	2
12	300	4	2
13	350	4	2
14	400	5	2
15	450	6	2
16	500	8	1
17	600	10	1
18	700	12	1
19	800	15	1
20	1000	20	1

Room. Room is the number of Spaces of stuff you can fit inside the hull.

Airlocks. Airlocks are small rooms that spacers use to enter and exit the vehicle without decompressing the entire craft. Ships without an airlock essentially are an airlock. They have a single hatch which when opened will completely decompress the vehicle. It takes **10 rounds** for an airlock or hatch vessel to recompress after being sealed up again.

Construction Center. Spaceships are often built at orbiting space stations or ground bases made specifically for the task. A hull's construction center number tells us what kind of station can build the ship. CC is a commonly used abbreviation for Construction Center.

CC 1 = The largest most advanced high-tech construction center, these can build any kind of ship of any size. Wait times can be hell, but many are attached to vacation centers with casinos that serve free shrimp cocktail (or something kinda like it) !

CC 2 = These centers are a bit older and smaller. They are the construction centers which used to be Type 1 before the newer Type 1's were built. They can construct any ship up to size 15. Many have bare-bones amenities attached to them and feel a bit like a truck stop in space.

CC 3 = These dingy space pits are often found in out of the way places. In a pinch they can build up to a size 9 ship but will have you waiting for weeks as spare parts are shipped in from all around the galaxy. Don't drink the coffee in the waiting room, it's nasty.

CC 4 = These centers are often ground based, think of them as a garage attached to a junkyard which just happens to work on small spacecraft. They can *service* ships of size 4 or smaller. Most spacers do not trust them to build anything, not if they can help it.

Hull Integrity. Integrity is the strength of the hull's build and ranges from Fragile to Tank. Integrity provides the ship's Hull Points, Breach Point and Base TR. Choose the one you want.

Integrity	Int HP	Breach Point	Base TR
Fragile	5	1	1
Light	10	2	2
Medium	15	5	3
Heavy	20	7	4
Hard	25	10	5
Tank	30	12	6

Breach. This is the amount of damage that it takes to penetrate the ship's hull. It bears no relation to hull size. A heavy integrity Cruiser has the same Breach 7 as a heavy integrity Fighter.

Destroyed. Destroyed is the total amount of HP damage your ship can take before breaking up. It is equal to your Int HP times the ship's Hull Size. An Adventure Scout combining a heavy integrity with an HS 3 will have (20 x 3) 60 HP. Think of it as the ship's total HP.

Destroyed = Int HP x HS

Stressed. This is the amount of damage the ship can take before its hull begins to hatch stress fractures and take even more damage every time it changes speed or turns. To find it divide your Destroyed number by 3 and subtract it from its total HP.

Stressed = Destroyed - (Destroyed / 3).

So an Adventure Scout with Destroyed 60 will divide that by 3 and subtract it from 60 (60 / 3 = 20 and 60 – 20 = 40). Its Stressed point is 40.

TR. With spacecraft, Turning Rate is less about how nimble a ship is as opposed to how much stress it can take when changing directions at an extremely high speed. The ship's TR is the hull's Base TR minus 1 for every 4 points of Hull Size.

Hull Size	TR Reduction
1 to 3	0
4 to 6	-1
7 to 10	-2
11 to 14	-3
15 to 18	-4
19 to 20	-5

You need an TR 1 at the very least otherwise the ship is too fragile to fly. A battleship with HS 20 can only be made with a Tank Integrity and that will give it TR 1.

Ultimately, turning rate is the limiting factor on the size of spacecraft. Maybe someday when a stronger alloy is discovered we can build bigger ships but right now HS 20 is the limit. Granted there are space stations which are significantly bigger than an HS 20, but most space stations are too fragile to move and exist locked in their orbit.

Hull Price. The price of a ship's hull is its total HP in kilocredits. A ship with Destroyed 45 will cost you 45 kc. This covers the hull, wiring, piping, plumbing, lighting, basic furnishings, portholes, galley, life support, waste treatment, communication and surveillance equipment.

1 hp = 1 kc

Target. The ship's hull also provides its base target modifier, ie how hard or easy it is to hit:

Hull Size	Target
1 - 3	-15
4 - 6	-10

7 - 9	-5
10 - 12	+0
13 - 15	+5
16 - 18	+10
19 - 20	+15

Landing Gear. Most spacecraft, especially the large ones, are built in space and designed to stay there, using smaller shuttle craft to land on planets, moons, and other celestial bodies. To make a ship that can land on a solid surface you need to outfit it with retractable landing gear. This costs double the hull size in kc. It also takes up 1 space and has 1 hp per hull size.

Price = HS x 2 kc.
Space = HS x 1.
HP = HS x 1

So putting landing gear on a HS 3 Adventure Scout will cost you 6 kc, take up 3 spaces and have 3 hp.

Aerodynamics. Likewise, most spacecraft are about as aerodynamic as a brick. If you plan on being able to fly inside an atmosphere, you should get the aerodynamic option for your craft. This costs nothing but it reduces the available room inside the craft by consuming space. Write *Aerodynamic* in as an item on your design sheet with a space equal to double the hull size.

Space: HS x 2.

Engines

Now you need some engines to get that rig moving. Choose the AD you want and use the table below to find the amount of **Thrust** you need to get it. You may buy more than the table suggests. Be sure to write the thrust number down on your design sheet. You will need it later.

Hull/AD	**1**	**2**	**3**	**4**	**5**	**6**
1	1	2	4	8	16	32
2	2	4	8	16	32	64
3	3	6	12	24	48	96
4	4	8	16	32	64	128
5	**5**	**10**	**20**	**40**	**80**	**160**

6	**6**	**12**	**24**	**48**	**96**	**192**
7	**7**	**14**	**28**	**56**	**112**	**224**
8	**8**	**16**	**32**	**64**	**128**	**256**
9	10	20	40	80	160	320
10	12	24	48	96	192	384
11	14	28	56	112	224	448
12	16	32	64	128	256	512
13	**20**	**40**	**80**	**160**	**320**	**640**
14	**24**	**48**	**96**	**192**	**384**	**768**
15	**28**	**56**	**112**	**224**	**448**	**896**
16	**32**	**64**	**128**	**256**	**512**	**1024**
17	40	80	160	320	640	1280
18	48	96	192	384	768	1536
19	56	112	224	448	896	1792
20	64	128	256	512	1024	2048

The Adventure Scout has AD 5 with a Hull Size of 3 so we are going to need at least 48 points of thrust. While in theory you can accelerate faster than AD 6 the amount of velocity involved will flatten most crews. Even thralasites don't enjoy it.

AD HP. When it comes to the damage your engines can take, the total is equal to half your thrust. Divide this by your AD to find the number of points each AD on your vehicle sheet should have. Any left over points should be evenly distributed left to right among the AD numbers.

Total Engine HP = Thrust / 2
AD HP = Total Engine HP / AD

So 48 points of thrust split in half gives us a total engine hp of 24. Divide that by AD 5 and each point of AD will have 4 hp. The four remaining points should be distributed among the first four AD's. On your vehicle sheet you would end up with:

AD1: 5 AD2: 5 AD3: 5 AD4: 5 AD5: 4

Handling. Handling is a modifier pilots use when flying the ship. Add the Hull Size, AD and TR together - double it - and turn it into a penalty.

Handling = (HS + AD + TR) x -2

Our assault scout has a Hull Size 3, AD 5 and TR 4 so that amounts to (3 + 5 + 4 = 12 x -2 = -24) a Handling of -24. A battleship, on the other hand, has Hull Size 20, AD 2 and TR 1 for (20 + 2 + 1 = 23 x -2 = -46) a Handling of -46.

A much harder ship to handle!

Engine Types. There are four types of engine: Fusion, Fission, Ion and Chemical. **Fusion** engines are the most high tech and environmentally friendly. **Fission** engines were once the darlings of space travel, but are now seen as dirty, outdated and only used by despicable people. **Ion** engines come from the days before Void Field Generators when people dreamed of generational ships and needed a way to travel for years on end between the stars. Ion engines have great fuel efficiency but only work in a vacuum. **Chemical** engines are antiques. They still work but consume tons of fuel and provide a very bumpy ride.

Aside from their various nuances, mostly what engine type does is determine the price of an engine and the ship's Recharge Rate.

Type	Cost Per Thrust Point	Recharge Divisor
Fusion	3 kc	10
Fission	2 kc	15
Ion	2 kc	20
Chemical	1 kc	30

A fusion engine pumping out 48 points of thrust costs 144 kc. A Fission or Ion engine doing the same costs 96 kc. A Chemical engine costs only 48 kc. Note that this is the price of the engine itself, not the fuel it burns.

Recharge Rate. To find a ship's Recharge Rate, divide your Thrust by the engine's Recharge Divisor and round down. Our assault scout with 48 points of thrust will have a recharge rate of 4 with a fusion engine, 3 with fission, 2 with ion and a measly 1 with a chemical engine.

Recharge Rate = Thrust / Recharge Divisor

If your engine's recharge divisor is greater than your thust, the engines will provide you with enough electricity to maintain small electronic devices and life support, but not enough to recharge the power supply. Basically, the ship has what is in its batteries and needs to dock with a space station or raise a solar array to recharge them.

Engine Space? Engines are mounted in such a way that they do not take up space inside the ship. Fuel is a different matter.

Fuel

Fuel comes in units. The cost and space of which depends on the type of engine that burns it.

Type	Cost Per Unit	Units Per Space
Fusion	$20	40
Fission	$40	20
Ion	$30	200
Chemical	$5	10

The number of units that make up a **Fuel Load** is equal to the ship's Thrust divided by 4.

1 Fuel Load = Thrust / 4.

So a fusion engine with 48 points of thrust will burn (48 / 4 = 12) twelve fuel units as one fuel load. Twelve fusion fuel units costs (12 x 20 = 240) $240. This means that each fuel load for your ship costs $240. *Be sure to write that down on your design sheet.* Buying ten loads of fuel and will cost you 2.4 kc.

Fuel Tank. When building a ship, what you do is guesstimate how many fuel loads you will need and buy a tank to fit it. The cost of the tank is the same as the cost of a full load of fuel. Use *Units per Space* to figure out just how much room the tank will take up and **round up** any decimal point to the nearest space.

So if I want the Adventure Scout to have a fuel tank that can carry 10 loads of fuel, that tank will cost me 2.4 kc. Each load of fuel is 12 fuel units so we are talking about 120 fuel units total. Fusion fuel can pack 40 units into one space (120 / 40 = 3) so the fuel tank will take up 3 spaces inside the ship.

That's not much! It might be a good idea to double its capacity to 20 fuel loads, costing 4.8 kc and taking up 6 spaces inside the ship. Space is a place where you do not want to run out of fuel!

Fuel Tank HP. Fuel tanks are quite sturdy and have **5 hp** no matter how big they are. This can be reinforced for **double** the cost to give the tank **10 hp**. Once a fuel tank loses all of its hp any fuel left inside it will explode, often taking the ship with it.

Computers

Even the smallest ship needs a computer to monitor its systems. Larger ships may carry more as backups, but only one computer can work as the ship's computer at a time. In many ways this turns the ship into a robotic body for the computer. Give it a Pilot program and it can fly the ship on its own. A Gunnery program lets it fire the ship's weaponry.

The one program the computer absolutely must have is *Ship Management*. Your hull size will tell you the lowest level of computer you need to run it.

Hull	Min Computer Level
1 to 4	2
5 to 8	3
9 to 12	4
13 to 16	5
17 to 20	6

Buying A Computer. With the table below the dollar signs are variable pricing in credits. If the GM is present you should roll 1d10 and add one zero per dollar sign. Otherwise use a 5 in place of the die roll.

Type	Level	Frequency	Price
Personal	2	Common	$$
Personal	3	Common	$$$
Server	4	Uncommon	$$$$
Server	5	Uncommon	$$$$$
Super	6	Rare	$$$$$$
Super	7	Rare	$$$$$$$

Size does not matter. Even super computers are surprisingly small devices and take up no space inside a ship. The computing center that the computer connects to is a part of the hull and has **1 hp**.

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update to new computer rules

Buying Software. The big four programs for spacecraft are **Ship Management**, **Pilot**, **Gunnery** and **Astrogation**. Ship Management is the only one you absolutely must have. It connects the computer to the ship and lets it manage life support, fuel consumption,

bulwark lockdowns, etc. Pilot and Gunnery allow the computer to fly the ship and fire its weapons. Astrogation lets the computer handle celestial navigation. For pricing, software packages are bought just like a computer. The level determines its price.

Level	Frequency	Price
1	Abundant	$
2	Common	$$
3	Uncommon	$$$
4	Uncommon	$$$$
5	Rare	$$$$$
6	Rare	$$$$$$

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Astrodomes. An Astrodome is a small array of telescopes and other scanners kept inside a protective dome. They are essential for astrogation. You can get by without buying your computer an Astrogation program, but you cannot use a Void Field Generator without an astrodome.

By law, all hulls come stock with one astrodome. Extra ones **cost 3 kc** and have **1 hp**. Space is negligible when the quantity is small. Otherwise 10 astrodomes can fit inside a single space.

Astrodroids are small robots that are essentially a can with an astrodome for a head. They count as crew members and are quite popular as they allow pilots to take trusted navigation equipment from ship to ship. A new astrodroid can often be picked up for **2d10 kc**.

Crew

A ship with a computer bearing the right software doesn't need a crew, just as long as it doesn't find itself in need of repair. Otherwise, **Min Crew** is the recommended minimum for a ship's crew. **Max Capacity** is the most a ship can uncomfortably carry. Space is automatically allocated for the crew and will not cut into the Room a hull provides for equipment.

Hull Size	Min Crew	Max Capacity
1	1	5
2	2	10
3	3	15

4 to 6	5	HS x 5
7 to 9	10	HS x 10
10 to 12	15	HS x 15
13 to 15	20	HS x 20
16 to 18	25	HS x 25
19 or 20	30	HS x 30

A size 3 assault scout should have at least three crew members and can carry up to fifteen packed in like sardines. Ships with a hull size of 4 or more have a maximum capacity equal to the hull size times a number. A size 20 battleship has a max crew of (20 x 30) 600 people.

Extra Crew. Extra crew, aka *Extras or Red Shirts*, are nameless spacers hired to work the ship and make up for what the adventuring party lacks in numbers. All are living breathing people with complex lives and loved ones, but mostly they are there to make repairs and absorb damage that could have been taken by the ship.

As a vehicle component, write in *Extra Crew* and give it **1 hp** per extra crew member. This isn't the most damage a crew member can take, but it is the most they are willing to take as a part of your crew. Each 1 hp of damage taken by your crew will knock one of them out of commission.

It costs 1 kc per crew member to outfit them with a space suit and other amenities. The crew will expect to be fed and paid a daily wage (usually $10 to $100 per day). Fail to deliver on this and you may have a mutiny on your hands.

HP = 1 per extra crew member.

Price = 1 kc per extra crew member to start.

Rations. Organic crew members require rations which are measured in ***days per person*** so 5 rations will keep 1 person fed for 5 days or 5 people fed for 1 day. The greatest number of rations your galley can carry is your Max Capacity x 10. The price is $10 per ration. The hp of rations is 1 plus 1 point for every 100 rations.

Ration Count = Max Capacity x 10.
Price = Ration Count x $10.
HP = 1 + 1 per 100 rations.

An assault scout has a max capacity of 20. It can hold up to 200 rations in its pantry, a full load of food costs 2 kc. The hp of the whole kit and kaboodle is 3 hp. Additional space

may be allocated to food storage. This costs nothing but every 50 extra rations takes up 1 space.

Weapons

Civilization may frown on people walking around armed, but fifty light years from home is no place to find yourself surrounded by pirates with nothing but a holofare to fling at them. Out on the free frontier, *it is good to be armed*.

With this said, realize that all ship weapons come with unique highly-encrypted locking keys that need to be inserted into a weapon's console panel before it can fire. This allows the authorities of highly civilized areas to essentially confiscate a weapon without actually removing it. *Do not buy any weapon that doesn't come with a locking key!*

Weapon Catalog. Here is a menu of the most common weapon systems carried by spaceships. **Defense** tells us the kind of shield or screen that defends against it. **Con** is the weapon's Contraband number. Write it into the Component Notes. **Ammo** is the **Price** and **Space** per shot. There is no limit to the amount of ammo you can buy for a weapon, other than the room available on your craft. Those with a - dash for ammo drain your power supply every time they are fired. Gauss weapons require both ammo and a power supply.

Weapon	Defense	Price	Space	HP	Con	Ammo
Laser Gun	Albedo	5 kc	2	2	2	-
Laser Battery	Albedo	10 kc	5	8	3	-
Laser Cannon	Albedo	15 kc	10	4	4	-
Electron Gun	**Energy**	**10 kc**	**4**	**3**	**2**	**-**
Electron Battery	**Energy**	**15 kc**	**8**	**12**	**3**	**-**
Electron Cannon	**Energy**	**20 kc**	**12**	**6**	**4**	**-**
Proton Gun	Energy	15 kc	6	4	3	-
Proton Battery	Energy	20 kc	12	16	4	-
Proton Cannon	Energy	25 kc	16	8	5	-
Disruptor Beam	**Energy**	**8 kc**	**10**	**3**	**6**	**-**
Gauss Gun	Inertia	2 kc	2	3	1	$100, 1
Gauss Battery	Inertia	4 kc	5	12	2	$400, 4
Gauss Cannon	Inertia	6 kc	10	6	3	$600, 6
Rocket Battery	**Inertia**	**5 kc**	**5**	**4**	**2**	**4 kc, 1**
Assault Rocket	**Inertia**	**5 kc**	**2**	**4**	**3**	**2 kc, 1**

Torpedo	**Inertia**	**10 kc**	**5**	**4**	**4**	**8 kc, 2**
Mine Dropper	Inertia	5 kc	10	6	5	12 kc, 5
Seeker Missile	Inertia	5 kc	10	6	6	5 kc, 2

Weapon Stats. The next table is used when filling out a ship sheet. **Hit** tells us just how hard or easy the weapon is to aim. **DMG** is the damage it does. **Energy** is the number of HEU the weapon drains when fired. **Aspects** is a freeflow area for anything else that needs to be known about a weapon. R is a range number. RM is its maximum range. All weapons take 1 beat to fire and cannot fire more than once per round, so this is not worth writing down.

Weapon	Hit	DMG	Energy	Aspects
Laser Gun	+5	1d10	2	
Laser Battery	+15	2d10	4	
Laser Cannon	-5	3d10	6	
Electron Gun	**+0**	**1d10**	**2**	**R5**
Electron Battery	**+10**	**2d10**	**4**	**R5**
Electron Cannon	**-10**	**3d10**	**6**	**R8**
Proton Gun	+0	2d10	3	R7
Proton Battery	+10	3d10	5	R7
Proton Cannon	-10	4d10	7	R11
Disruptor Beam	**-10**	**5d10es**	**1**	**RM 2**
Gauss Gun	-0	2d10	1	R3 RM5
Gauss Battery	+10	3d10	2	R3 RM7
Gauss Cannon	-10	4d10	3	R4 RM9
Rocket Battery	**+15**	**3d10**	**0**	**RM4**
Assault Rocket	**+10**	**6d10**	**0**	**RM6**
Torpedo	**+5**	**10d10**	**0**	**RM8**
Space Mine	+0	3d10	0	R0
Seeker Missile	70%	6d10	0	RM6

Guns, Batteries and Cannons. Guns are single barreled weapons. A Battery is a barrage of guns all facing the same direction. A Cannon is a very large gun.

Lasers. Lasers are highly focused beams of light. They have an extremely long range and require specialized Albedo defenses to stop them. This makes lasers a favorite among

spacers. They come in many different colors but most tend towards the red end of the spectrum.

Electron & Proton Beams. These two are weaponized particle accelerators that shoot crackling beams of fast moving electrons or protons at their enemies. The Proton accelerator is the larger, more expensive and deadlier of the two. Otherwise their beams look very much alike. Neither particle weapon can be fired inside of an atmosphere and only work in the vacuum of space.

Disruptor Beam. Often called a *Lightning Gun*, a Disruptor Beam uses a magnetic field to suck electricity out of a ship. The bolts of lightning are actually electricity moving out of the ship being hit and into the one doing the hitting. This either recharges the ship's energy supply or vents it out into space once full. The **es** attached to its damage roll is a reminder that it attacks a ship's energy supply rather than doing damage. Disruptor beams are a favorite weapon of hijackers and pirates making it a one you will want to conceal.

Gauss Weapons. Also known as *Rail Guns*, these are essentially giant Needlers that use magnetic force to shoot steel rails with blistering speed. They do not drain as much power as other energy weapons but you do have to buy and store ammo for it.

Rockets, Missiles & Torpedoes. All of these are essentially guided missiles. Because of this guidance they do not suffer from range diffusion, but the rockets have limited fuel which ultimately stunts their range. Rocket batteries fire off a fusillade of small missiles making the attack harder to stop with countermeasures. Having to outfit each missile with its own guidance system is what makes the rocket battery's ammo more expensive than the larger assault rocket.

Mines & Seekers. These are dropped weapons. You drop them in space and they read the signatures broadcast by passing ship beacons. If the wrong signature passes too closely? Mines explode. Seeker missiles launch themselves at the ship with a flat 70% chance to hit. These are military grade weapons meant to be sold only to governmental bodies. Of course, that is not how things often play out.

Direction. Every weapon that isn't a Mine Dropper or Seeker Missile, will need a direction code to tell us which way it is facing:

FF = Fires Forward
FR = Fires Right

FS = Fires Stern (Rear)
FL = Fixed Left

For **double** the weapon's **price** and **space** you can mount it in a turret. This lets it spin to fire in any direction. Change its direction code to **RT** for *Rotating Turret*.

Concealed Weapons. Any weapon can be concealed, but like a turret concealment **doubles** the price and space. Concealing a turret **quadruples** the weapon's price and space. It takes **one round** for a concealed weapon to pop in or out of a vessel. We mark them by adding a C to their position. A CFF is a *Concealed Fires Forward* weapon. A CRT is a *Concealed Rotating Turret*.

Hit Score. Your percentage chance to hit with a weapon depends on who is firing it. With both character skills and computer programs you get a +10 per level. Generic extra crew members may man weapons but they will not have the gunnery skill.

Character = 1/2 Reflexes + Gunnery + Weapon Hit Mod
Computer = 30% + Gunnery + Weapon Hit Mod
Extra Crew Member = 25% + Weapon Hit Mod

Force Fields

Force Fields work for ships in the same way they do for characters but with one added complication: the bigger a ship is the more expensive the force field generator becomes, the more space it takes up, and the more power it consumes to project its force field.

Void Field Generators. The VFG lets a ship travel faster than light. The cost of it is ten times the hull size in kilocredits. The space it fills is equal to the ship's hull size. The energy needed to raise a void field is **5 HEU per hull size**. It doesn't matter how far you go, the energy consumption of the field is always the same.

Price = HS x 10 kc.
Space = HS x 1.
HP = HS x 1.
Drain = HS x 5.

Defensive Shields. The major defensive shields are Albedo, Inertia and Energy which protect against Lasers, Projectiles and Energy weapons respectively. Like a VFG the price, space, hp and drain is based on the hull size of the ship. The multipliers change depending on the nature of the shield:

Shield	Albedo	Inertia	Energy	Cloaking	Scrambler
Price	2 kc	3 kc	4 kc	18 kc	2 kc
Space	1	1	1	1	1
HP	1	1	1	1	1
Drain	1	1	1	2	1
Contraband	1	1	1	7	2

Defensive Fields. When it comes to Albedo, Inertia and Energy fields, this is the price of 1d10 in protection. So an Adventure Scout with a hull size of 3 looking to get an Albedo 1d10 field would pay 6 kc. It would take up 3 spaces in the ship, have 3 hp, and drain 3 HEU per round. Amp up the field to Albedo 3d10 and everything triples to 18 kc, 9 spaces, 9 hp, and 9 HEU.

Because the burn numbers are often different from the protection dice we need to put them into the shield name ex: *Albedo 3, 1d10*.

Cloaking Fields. Cloaking fields turn you mostly invisible, anyone trying to detect or target you will suffer a -40. Unfortunately, this invisibility is lost as soon as a weapon is fired. Cloaking fields are considered highly illegal, which is a part of what makes them so expensive. For the same reason they are always mounted as a concealed item.

Scrambler. Scanners use different technologies in a ship's astrodome (radar, lidar, xrays, heat signatures, etc) to look inside a ship and analyze its contents (see *Detection* in *Combat*). A scrambler erects a static field that tries to block this. Unlike a cloaking field, it doesn't hide your ship, just its contents. There is no way to hide the fact that a scrambler is being used.

Defenses

While most ships rely on force fields for defense, others use more physical means, namely Masking Screens, Interceptor Missiles, and Laser-Reflective Hulls.

Masking Screens. Often known as the *Poor-Man's Force Field*, a masking screen sprays a mist around a spacecraft that flash freezes into a protective cloud of ice crystals. Different chemicals are used to create different kinds of screens the big four being Albedo, Proton, Electron and Flux. It is impossible to tell one screen from another without firing into it. Only one screen may be used at a time.

All screens use the same discharger system. You only need one of them. The screens themselves are barrels of chemicals loaded into it. Treat each as a single shot of ammo for the weapon.

Screens	Price	Space	HP
Screen Discharger	1 kc	2	2
Albedo Screen	1 kc	1	1
Electron Screen	1 kc	1	1
Proton Screen	2 kc	1	1
Flux Screen	3 kc	1	1

For every 4 points of hull size you will need another screen discharger and the price, space and HP of ammo increases.

Hull Sizes	Needs
1 to 4	Single
5 to 8	Double
8 to 12	Triple
13 to 16	Quadruple
17 to 20	Quintuple

Albedo. Albedo screens have a prismatic effect on any laser weapon trying to fire through it. You get Target -30 against all lasers. *Enjoy the light show!*

Electron. Electron screens reduce the hit of an Electron weapon by -30 but give any Proton weapon a +10 to hit. Trying to fire a Proton weapon out through an electron screen does a single success of damage to the ship.

Proton. Proton screens do the opposite. They reduce Proton weapons by -30 but give Electron weapons a +10 bonus. Trying to fire an Electron weapon out through a proton screen does a single success of damage to the ship.

Flux. Flux screens use magnetic material to thwart Disruptor Beams and Tractor Beams. Neither can fire into or out through a flux screen. Unfortunately, Electron, Proton, Gauss weapons and Missiles all gain a Hit +10. They have no effect on grappling assemblies.

Interceptor Missiles. These are small unguided rocket barrages designed as countermeasures to get missiles like Assault Rockets to explode before reaching their target. The launcher costs **2kc**, takes **1 space** and has **1 hp**. A 5 shot load of ICMs costs **1kc**, consumes **1 space** and has **1 hp**.

Laser Reflective Hull. A reflective hull has a mirrored surface. This reduces laser damage by half. The price of it is 1 kc per hull size.

Power

You do not need an power supply. Small electronics and life support systems can run off of residual energy created by the ship's engines, but if you have any devices that run on energy you will want one.

Space ships use *High-Energy Units* where each 1 HEU is equal to 100 of the EU normally used by characters. Power supplies are often made of banks of batteries. To keep things simple we ignore battery type and use:

10 HEU = 1 kc, 1 space, 1 hp.

So if you want a 50 point power supply that is going to cost you 5 kc, take up 5 spaces and has 5 hp.

XCell Batteries. These high-end batteries cost twice as much as normal batteries but provide 20 HEU per battery instead of 10.

Equipment

Equipment covers the myriad of small stuff spacecraft often have scattered about their supply rooms, things like hammers and wrenches and socket sets and such. You buy it in heaps where each heap costs **1 kc**, consumes **1 space** and has **1 hp**.

Every heap you have is another chance to find something you are looking for. You need at least one heap of equipment on board to search for anything. Without it you are limited to just what you have written on your vehicle sheet.

1 Equipment = 1 kc, 1 space, 1 hp.

Extras

This is an alphabetical listing of different things you can buy for your ship. They come with a description followed by a line giving us the skinny on what you need to add it to your ship.

Beacon. All new ships come with a beacon, but they do have a bad habit of giving out after a while. The cost of a replacement beacon is 2 kc. Size is negligible. You can fit ten beacons in one space.

Extra Beacon = 2 kc.

Bling. The furnishings that come with spacecraft hulls are spartan and colorless to say the least, dropping money into bling livens up the place a bit, makes it more comfortable, colorful and entertaining for the crew. It is believed that this improves morale and that the more bling you buy the better they will be. *Results may vary.*

Bling = 3 kc & 1 hp per hull size.

Brig. A brig is a holding cell inside a vessel. A normal brig uses a locking door and costs 2 kc and 2 spaces per prisoner. A inertia field brig uses a force field. It costs 1 kc and 2 spaces per prisoner but has a nasty habit of shutting off when the ship's power supply hits zero.

Normal Brig = 2 kc & 2 spaces per prisoner.

Inertia Brig = 1 kc & 2 spaces per prisoner.

Bottle Rocket. *Subspace communication does not exist.* There is no way to communicate over interstellar distances in an instant. The closest thing we have is called a Bottle Rocket, combining *message in a bottle* with *rocket*. They are expensive and often only used in emergency situations.

While it may look like a missile, a bottle rocket is a drone with a very small VFG. Essentially, you write a message (often a hand-written message, you don't want to send a computer file that may be corrupted while traveling through the void) put it in the drone and launch it into space. **1d10-3** days later the bottle rocket will ferret out its destination and deliver the message. Unfortunately, if you roll zero or less the rocket does not reach its destination and will never be seen again.

Bottle rockets typically carry enough fuel to carry a message to its recipient and then carry a return message back to its sender. If it arrives safely the rocket may be reused after being refueled for $200.

Bottle Rocket = 12 kc, space 1, hp 1.

Cargo. Cargo space is whatever room you have left in your ship. If you have run out of room, you can commandeer living quarters for extra space. Take your Max Crew, subtract your Actual Crew, and half of what remains can be used as cargo space. No one is going to be happy about this, but it beats leaving stuff behind.

Emergency Cargo Space = (Max Crew - Actual Crew) / 2

Escape Pod. An escape pod is essentially a capsule with an emergency beacon, **twenty eight** rations and **one week of life support**. Up to **four** people can stuff themselves inside a pod and escape a doomed ship.

It can speed up to AD 1 once and then back down again to zero speed. The computer on board will automatically seek out and attempt to land on the nearest habitable planet via parachute. If unable to find such a place it will simply float in space, sending out an emergency signal, hoping to be picked up by somebody.

Escape pods can be outfitted with a VFG and astrodome for hyperspace travel, but this doubles their price.

Escape Pod = 4 kc, 5 spaces, 2 hp.

Food Production Center. Larger ships often have food production centers which recycle waste and use hydroponics to grow their own vegetables and artificial meat. Unfortunately, these are expensive, size intensive and slow to produce edible food. It's the reason why people often stock up on rations before going anywhere. Still they do exist. *Ag Ships* are space stations that do nothing but produce food to sell to spacers.

A Food Production Unit produces **1 ration per day**, costs **2 kc** for the equipment, takes up **10 spaces** inside the ship and has **1 hp**.

So 12 units of food production costs 24 kc, takes up 120 spaces and has 12 hp. Be sure to jot down its daily output, ex: *Food Production 12*. Energy is essential for food growth and each ration takes **1 energy unit to produce**, so you might want to pick up a solar array while you are at it.

Food Production Unit = 2 kc, 10 spaces, 1 hp.

Grapping Arrays & Tractor Beams. These two essentially do the same thing. They latch onto a ship and pull it in close for boarding (see *Boarding Parties* in *Adventure*). The Grappling Array is a heavy duty anchor chain attached to powerful electomagnetic clamps as well as a windlass used to pull the chain in once attached. A Tractor Beam is a magnetic field generator that does the same thing but without physically touching the ship. Both can only be used in Dog Fighting range and require a successful Hit roll to grab onto a vessel.

Tractor Beams are the more expensive of the two, but the Grappling Array takes up more space on the ship. Both consume 1 energy unit when used and another HEU for every

minute they are attached. Once either are attached, the ship that has been grabbed can fire its engines and pull itself free but this does **5d10** in damage to the escaping ship.

Grappling Array = 3 kc, 10 spaces, 6 hp, Hit -10.

Tractor Beam = 20 kc, 1 space, 1 hp.

Gravity Plating. Gravity plating is essentially floor plates containing tubes of a rare earth element called *Selinsalguodium* which when charged creates a small gravitational field extending 3 meters in every direction.

Without it your ship can still function, but organic characters will suffer from *Gravity Sickness* if they stay on board for longer than a week. With gravity plating a crew can stay on board indefinitely. Unfortunately, gravity plating is expensive and costs the Hull Size of the vehicle times 10 kilocredits. This is also the reason why pirates so often rip up the floors of the ships they take.

Gravity Plating = 10 kc x HS.

Hull Patches. Hull patches are sheets of metal, buckets of rivets, and tubes of sealant used to repair a damaged hull in a hurry (see *Ship Repairs*). They are sold in packs of five. Each patch can repair 1 hull point of damage. Be sure to buy a decent amount, because without it you cannot repair your hull. These patches are temporary fixes. They should eventually be replaced by a serious repair job at a Construction Center.

5 Hull Patches = $500, 1 space, 5 hp.

Lifeboat. A lifeboat is a large escape pod that can hold up to a dozen people stuffed in like sardines for one week. Otherwise, it works just like an escape pod. They may be outfitted with a VFG and astrodome for hyperspace travel, but this doubles their price.

Life Boat = 10 kc, 10 spaces, 4 hp.

Mining Equipment. One of the big reasons people go into space is to mine precious resources and sell them to the societies that need them. Mining Equipment is simply a place holder for any number of things from pick axes to bulldozers to ore refinery equipment. The more units you have on board the more mining you can do.

Mining Equipment = 1 kc, 1 space, 1 hp per unit.

Safe. A box with thick steel walls and a digital lock. When it comes to safes you purchase the space they occupy with the smallest safe taking up just a single space. The actual room inside the safe is half the space it takes up. So a six space safe will cost 30 kc, takes

up 6 spaces of room, and holds 3 spaces worth of stuff. The larger the save is the more durable it is and the more damage it can take before being broken into.

1 Space of Safe = 5 kc, 1 space, 2 hp.

Scavenger Pod. Scavenger pods are small single passenger vehicles designed to let spacers pick through the wreckage of a spacecraft. Often called *Space Ticks*, they have an array of robotic limbs on the front, including a cutting laser and magnetic clamps, as well as a hindside which is an expandable canvas sack made for collecting what they find (hence the tick reference). Scavenger pods can move independent of other vehicles but they cannot go fast or far. Most carry about six hours of life support.

Scavenger Pod = 15 kc, 4 spaces, 2 hp.

Solar Arrays. Solar Arrays are collapsing panels that emerge from the hull, unfold themselves and recharge your power supply. Each array recharges **1 energy unit per hour** - give or take some time for the intensity of the star light hitting them.

It takes **1 minute** for a ship's solar arrays to emerge from or retract into the hull. Flick a switch and the ship does the rest. Any attack striking the ship while its arrays are deployed will hit the arrays first, doing hp damage to the solar panels before hitting the ship. Deployed solar arrays are protected by shields and screens, but somebody will need to go out and scrub them clean if left up when a masking screen is deployed.

A single solar array costs **1 kc**, consumes **1 space** and has **1 hp**. The maximum number of arrays a ship can have is **double** its hull size.

Solar Array = 1 kc, 1 space, 1 hp.

Space Bike. A space bike looks and largely runs like a hover cycle. It is a small ion engine powered rocket bike designed to carry up to two people. They are often used on larger space craft to help crew members move quickly over its surface while making repairs. Space bikes do not supply life support so be sure to wear a spacesuit.

While not designed for long-distance travel, space bikes can actually travel quite a way through space and can even be outfitted with a VFG and astrodome for hyperspace travel (price doubles). However, the ion engine is limiting and they cannot enter an atmosphere without burning up.

Fusion engine models are available. Coupled with an Energy Force Field this allows for entering and exiting atmospheres but the package triples the cost of the bike.

Space Bike = 5 kc, 1 spaces, 1 hp.

Shuttle Bays. You can put small spacecraft inside a large one by installing what is commonly called a shuttle bay. The vehicles themselves cannot be very big. Space-wise it requires **triple** the Room of the vehicle you want to store. The price of the bay is $100 per space.

A shuttle craft is a hull size 1 vehicle with 10 room. Building a shuttle bay to house it requires 30 spaces and costs 3 kc. An assault scout has a hull size 3 and 30 room. To house one requires 90 spaces and costs 9 kc.

Shuttle bays will be protected by the ship just like any other vehicle component. They have no hp, but any ship parked in the bay can be used to absorb damage done to the larger ship.

When it comes to getting in or out of a shuttle bay, that is a Docking maneuver which will require a Pilot check (see *Docking*). The larger vessel needs to drop any Inertia screen it has going and the smaller vehicle cannot raise a shield or use a screen until outside the ship.

Shuttle Bay = $100 per space. Space = Room x 3 of shuttle.

Deck Design

Deck design is optional but can also be a whole lot of fun. Basically, get out some graph paper and a pencil and draw maps of the ship's various decks. The main consideration to keep in mind is gravity. Decks should be kept perpendicular to the ship's engines. This way the g-forces created by rapid acceleration will be pulling the crew down to the floor and not flinging them across the room. Gravity plating can create artificial gravity but it is not quick enough nor strong enough to counter the play of natural forces on the ship.

Whatever you build, be sure to avoid anything like a long passageway leading from bow to stern which isn't an elevator of some sort. Granted, alarms will sound when the ship goes to accelerate, it's best not to count on everyone making it to their gravity seat in time. You don't want anyone plummeting to their death down what is otherwise a hallway.

Deck Space. As far as space is concerned, every square centimeter counts, yet while the Room of a ship is in square meters, it is a measure of what can be used and not all that is there. When it comes to the actual space of a ship? As long as you don't map out more than triple a hull's room in square meters you should be good.

The *Free Frontiers* game measures character movement in meters so sketching the deck plan with each square equaling one meter will help when dealing with boarding parties and other combat situations. You don't have to rigidly stick to the grid, corners can be rounded off and sliced diagonally when needed, but unless you are building a thralasite ship it is easier to use graph paper than hex paper. Thralasite architecture tends to be a bit more rounded than most and does well with hex maps.

Placement. Be sure to include the placement of different items such as hatchways, doors, portholes and airlocks. Kudos for remembering to place fire extinguishers, heads and the ship's safe. Airlocks are your way in and out of the ship. They should be scattered evenly throughout the ship for easy access to the outside of the craft when making repairs.

Deckwise the ship's bridge is usually at the very top / front of the ship. Next come different decks of crew quarters, storage, shuttle bays and finally engineering which is kept closest to the engines at the stern. The engines themselves are often kept slightly removed from the body of the ship by struts. Weapons systems are spread throughout the ship for better coverage.

Stations & Bases

Space Stations are actually conglomerates of spacecraft welded together and reconfigured so as to seem like a single large ship. Some stations accomplish this with greater gravitas than others. Considering that spacecraft often end their lives by being sold to a space station as spare parts, most space stations come to resemble ramshackle heaps of junk floating in space. Only those which are tailor-made to a specific purpose will seem otherwise. Such tailoring often doubles if not triples the price of construction.

Building A Space Station. To build a space station you first need to build a bunch of spaceships of varying hull sizes, remove their engines, and patch them together to create different “wings” or areas inside the station.

Most space stations are not mobile, but some will have just enough engine power to adjust their orbit. To outfit your station with such engines, total up the hull sizes and buy the right amount of thrust to get the AD that you need. Typically AD 1.

If your total hull size is greater than 20, divide it by 20, and treat each chunk as a separate ship requiring thrust points. So a space station with a total hull size of 50 should be treated two hull size 20 ships and one hull size 10 fused together.

It takes 64 points of thrust to give a hull size 20 ship AD 1, and 12 points of thrust for a hull size 10 ship. Altogether that makes for 138 points of thrust that need to be accounted for.

Moon Bases. Moon bases are essentially the same thing except the retired spaceships have landed on a small asteroid, been permanently grounded, and turned into the buildings that make up the base.

Moon bases were famously known for having massive engines designed to push the rock ship through space. Such engines are extremely costly and exist on a level that is only affordable to governments and megacorporations.

Since the dawn of hyperspace travel the creation of movable moon bases has all but ceased. The building of fixed moon bases (often known as Fortresses or Outposts) still happens quite frequently, especially around mining operations where it makes sense to get as close to the rock you are mining in order to refine what you extract.

Fixed moon bases are often even more rundown and ramshackle than space stations. Most are simply abandoned as soon as the operation is over. Called *Ghost Towns*, these abandoned bases litter the frontier and are often used as hide-outs for bandits, smugglers and other ne're do wells. Star Law does what it can to control them, but some of these ghost towns are incredibly well-armed and well-connected.

SHIP REPAIRS

Spacecraft get beat up and need to be repaired just like anything else. Serious repairs are going to require a trip to a construction center, but there is much a ship's crew can do by simply donning their spacesuits and hitting the airlocks with toolkits in tow.

Work Details. To make repairs the crew needs to split into work details, each made of **20 members or less**. Their chance to fix something, aka their WDC or *Work Detail Check,* is **3% per person**. So a ship with 50 crew members can form two twenty-person work details each with a 60% WDC as well as a ten-person work detail with a 30% WDC.

Each work detail should have a leader and it should be the character in the group with the greatest amount of technician skill. This bonus is gained by the entire WDC. So if a ten person detail with a 30% WDC has a character leading it with Technician +10? It's WDC increases to 40%.

Work Detail = 20 crew members or less.
Work Detail Check = 3% per member + Technician skill of leader.

Hull Damage. For every hour a work detail spends repairing a ship's hull you get one WDC check. Each success repairs 1 hull point of damage, providing you have the hull patches needed to do this (see *Ship Creation, Extras*). It takes 1 hull patch to repair each 1 hp of damage.

Check: WDC.
Time: 1 hour per attempt.
S: Repair 1 hp per success.
H: Lose 1 hull patch.
C: Lose 1 crew member.

Professional Hull Repair. You can pay the professionals at a Construction Center to repair your ship. The cost of doing so is 1 kc and 1 hour per 1 hp of hull damage multiplied by the level of the construction center.

Hull Repair = 1 kc & 1 hour per 1 hp x Construction Center Level.

Repairing 12 hp of damage will cost you 12 kc and take 12 hours at a level 1 construction center. At a level 4 center it costs 48 kc and takes 48 hours. Pricing is negotiable but time is not.

Advanced Repairs. Unless you have replacement items on board, repairing damaged items other than your hull is beyond the capabilities of your crew. You need to high tail it to a construction center, have them pull the damaged item and replace it with a new one.

Agree to let the center salvage the damaged equipment and most construction centers will waive the installation fee on the new equipment. Meaning all you need to do is pay for the new equipment. Otherwise add 20% to the price.

Time-wise, it takes 1 hour per space multiplied by the construction center level. A laser battery takes up 5 spaces so it will take a level 1 center 5 hours to pull the damaged laser and bolt a new one in place. It takes a level 4 center 20 hours to do the same.

Repair Time = 1 hour per Space x Construction Center Level.

Replacing Items. If you have replacement items on board, it takes **3 hours per space** for a work detail to replace the old one. Note that a work detail busy replacing items cannot also be patching the hull.

Hawking Damaged Goods. Damaged items can be stored in cargo and sold at construction centers who will salvage them for spare parts. How much they give you for it depends on the original price of the item, how beat up it is and the level of the construction center. Low level centers are often more desperate for parts than high ones.

State	CC 1	CC 2	CC 3	CC 4
Like New	30%	40%	50%	60%
Used	20%	30%	40%	50%
Damaged	10%	20%	30%	40%
Badly Damaged	5%	10%	20%	30%
Destroyed	0%	5%	10%	20%

So a Laser Battery costs 10 kc. Hawking a used one you might net you 2 kc at a level one CC, 3 kc at a level two CC, 4 kc at a level three CC, and 5 kc at a level four CC.

Of course, what separates *Used* from *Damaged* from *Badly Damaged* is in the eye of the purchasing agent and what they might have a strong need for at the time. Which should also make you wonder about the quality of the supposedly "new parts" these places sell.

Maintenance

Every time you burn **10 fuel loads** you should increase the ship's **Maintenance Clock by 1 hour**. Every time the clock increases by **10 hours** roll **1d100**, add the clock to it and

compare your total to the Malfunctions table below. *Hope to roll low.* If what you roll does not apply to your ship, use the entry below it.

Malfunctions

Roll: 1d100 + Maintenance Clock.

140: **Kaboom!** A fuel tank leak causes the ship to explode in a freak accident. All is gone in an instant.

135: **Life Support Failure.** Get to a construction center quick! You have 4d10 hours of air left in the tanks attached to your space suits. After that the crew dies. Fix It: SRJ x 2.

130: Shot Astrodome. These are easy to replace providing you have an astrodome to replace it with. Otherwise you need to head to a construction center. Unfortunately, you cannot travel through hyperspace without an astrodome.

125: Weapon Malfunction. Your most used weapon goes on the fritz. It will not fire again until repaired. Fix It: Price 25%.

120: Shield Malfunction. A defensive shield of your choice malfunctions and will not project a force field until repaired. Fix It: Price 25%.

115: **Power Grid Problems.** Lights and terminals flicker all throughout the ship with no rhyme or reason. Everyone takes a -10 to whatever they are doing while this is going on. Fix It: SRJ or WDC -20.

110: Power Supply Short. Permanently lose 10 energy units from your power supply. The only way to fix it is to replace the shot batteries.

105: **Fuel Gunk.** Some strange gunk has appeared in your fuel tank! Lose 1d10 fuel loads and spend the same number of hours stalled in space, essentially cleaning out fuel lines.

100: Helm Malfunction. The helm's calibration is all wonky. Take a -20 on all piloting checks. TR drops by 2 when minis are used in combat. Fix It: SRJ or WDC -10.

95: Fried Transformer. Your engines no longer recharge your power supply. Recharge rate drops to zero. Fix It: SRJ or WDC.

90: **Engine Damage.** Your engines take 1d10 x Hull Size in damage as you attempt to start them up.

85: **Broken Landing Gear.** A strut breaks. No landings are possible until repaired. Fix It: SRJ or WDC -10

80: Gravity Plating Malfunction. The artificial gravity goes out. Your crew is not used to floating about and takes a -10 to everything they do. If this lasts for longer than a week in space they will suffer from *Gravity Sickness*. Fix It: SRJ

75: **Damaged Airlock.** One of your airlocks seizes up and refuses to open until fixed. Roll 1d10, 1: refuses to open. 6: traps someone inside the airlock. 8: traps someone outside the ship. That someone should be a character in the party and not an extra crew member. Fix It: SRJ or WDC.

70: Solar Array Jam. Your solar array is stuck half in and half out of the hull. Try to move the ship and g-forces will tear it to pieces. Fix It: WDC.

65: Blown Seam. A room in the ship decompresses. No one was hurt but the hull takes 1 hp of damage and you will not get the use of that room back until someone goes outside with a hull patch to fix it.

60: Masking Screen Clog. The heads on your masking screen sprayer are all gunked up. Fix It: WDC.

55: Dashboard Light Goes Out. It's nothing folks, happens all the time. Say, how many Zathar does it take to change a dashboard diode? *Ha! Too Many!*

1: Nothing Happens. Smooth sailing!

Fixing Problems. Most malfunctions can be repaired. Those ending with a *Fix It* come with a canned way of repairing the problem.

SRJ stands for *Standard Repair Job*. A construction center can fix this for you but it costs your Hull Size in kilocredits, possibly multiplied by the problem itself. A life support failure has SRJ x 2 so a hull size 3 ship will require 6 kc to fix it.

Price % means you need to go to a construction center and pay to have it fixed. The cost of doing this is a percentage of the price of a brand new item. A laser battery costing 10 kc brand new with a Price 25% costs 2.5 kc to repair.

WDC means a work detail can fix it. Each attempt takes one hour, but only one detail may work on the problem at a time. If the WDC ends with a modifier (as does *Broken Landing Gear*, WDC -10) this is a penalty taken by the check.

Check: WDC
Time: 1 hour
S: Repaired the problem!
L: Try again after another hour of work.

F: Only made it worse, now it's an SRJ.

C: Seriously screwed it up, now it's an SRJ x 2!

Rip-Offs. *A friend in need is a friend indeed* and construction centers are run by some of the slimiest most opportunistic friends in space. Running to one with a maintenance problem will often cause them to multiply the price of any repair by the construction center's level.

So a level 1 center will not tarnish its reputation by gouging the price of a repair, but a level 2 will try to double it, level 3 will triple it, and a level 4 will quadruple it.

Of course, all are in the business of making money so they will not pass on work just because a captain's coffers have run dry. They will take what they can get, as long as it covers the base cost of repair, and maybe negotiate some kind of deal to cover the rest.

Overhauls. The only way to beat the maintenance clock is by performing a ship wide overhaul. The entire crew goes over the ship with a fine toothed comb. No dice are rolled. It takes **1 kc** and **1 hour per hull size** to remove **1 MC** from the maintenance clock. This money is spent on minor fixes and improving the morale of the crew once the overhaul is over. Crews generally hate having to do overhauls but they appreciate the partying afterwards.

Overhaul = 1 kc and 1 hour per Hull Size to remove 1 MC.

New Ship, New Problems! When you come upon a new ship (found, bought, stolen, etc) **roll once on the malfunction table** no matter what is on the ship's maintenance clock, just to see if there isn't already something wrong with her that you don't know about. If there is something wrong the malfunction will not reveal itself until you get into space. You may overhaul the ship before making the roll. In fact, it's a very good idea to do just that.