

SPACESHIPS**

Want to travel among the stars? Adventure in high space? Let's take this previously loved Adventure Scout out for a spin. Brand new spaceships can be quite expensive, but like all vehicles a big chunk of the sticker price is lost as soon as you blast off the lot. Thanks to the growing demand for private space travel, cheap old junkers like one this can be found scattered all throughout the cosmos. Some are in better shape than others, so be sure to give any vehicle you find a complete overhaul before taking her out.

All sales are final!

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+Sample ship sheet.

Name. The name of the ship, often emblazoned on its side.

Class. This is a short description of the ship.

Captain. The name of the character in charge of it.

Affiliation. The name of any group the ship is associated with.

Hull Size. This is a measure of how big the ship is from 1 to 20.

Terrain. [Same set up used for normal vehicles]

Energy. Unlike a character's power supply, ships use **High-Energy Units**, also known as **heu**, where each is equal to 10 of the normal energy units used by characters. The number next to Energy is the max capacity of your ship's batteries. Energy drain is tracked using roman hash marks to the right of it. Once your drain equals your battery capacity you are out of juice. All of your electronics and life support go dead. *Do not let this happen.*

Defenses. This a list of the different defenses your ship employs, mostly force fields, screens and ICMs.

Attacks. These are the ship's weapon systems. **Hit** is what you roll to hit with it. **DMG** is the damage a single success does. **Dir** tells us the direction the weapon is facing. **Aspects** tells us anything else we might want to know about the weapon. More on this will be covered in *Combat*.

Maintenance Clock. Spaceships need to be routinely overhauled to keep everything running ship-shape. Think of the maintenance clock as a measure of just how badly you are in need of an overhaul. Every **1 MC** is called an **hour** and every ten hours put on the clock is cause for a roll on the Malfunctions table. *You do not want to do this. See Maintenance in Repairs* for more.

Hull Points. This is where we track damage done to the hull of the ship using roman hash marks.

Breach is the amount of damage it takes for an attack to breach your hull. It is used by boarding parties and attacks targeting specific parts of the ship.

Stressed is the halfway point to being destroyed. Take this amount of damage and the ship's hull will begin to buckle and break when you try to do anything extreme.

Destroyed is the total amount of damage a ship can take before breaking apart.

Components. Anything with an HP entry which isn't the ship's hull should get an entry in the ship's Components list, especially engines, weapons and ammo. Use the space on the back of the sheet just in case you run out of room.

Piloting. Spaceship pilots need sharp minds, quick reflexes and nerves of steel. When you become a ship's pilot, combine your character's Base Pilot score with your Space Pilot skill bonus as well as the ship's Handling modifier for the Space terrain.

Pilot = Base Pilot + Space Pilot + Ship Handling

What you have for a score needs to be 10% or greater for you to have any chance of flying the ship. The pilot score also gives us the ship's INI die. Any score greater than 100% uses the d12.

100: d12

75: d10

50: d8

25: d6

10: d4

INI is used to settle initiative in combat. When command of the ship changes hands, both Pilot and INI should be recalculated to match whoever is at the helm. This includes handing control of the ship over to the ship's computer.

TRAVEL

There are two kinds of travel when dealing with spaceships, *Engine* and *Hyperspace*. Engine-based travel uses controlled explosions to propel a vehicle through space by way of sheer force. While engine travel has greatly evolved over time, it has never been able to beat the vast distances that separate the stars.

Hyperspace travel is a newer phenomenon that uses a device called a *Void Field Generator* or **VFG** to bend dark matter around a vehicle and remove the resistance which enforces the speed of light as the fastest anything can go. With hyperspace travel a ship seems to blink out of reality in one place and blink back in somewhere else. This happens no matter how vast or obstructed the distance between the two places happens to be.

Ironically enough, hyperspace travel is a little too fast. It takes approximately 3.14159... seconds to travel one light year, making it nearly impossible to shut down the field and emerge from the void exactly where you want to be. You may end up close but there will always be a decent amount of engine travel left for you to go before arriving at your destination. For this reason, void fields can only be used in the vast emptiness of space, lest you accidentally re-materialize inside something on re-entry.

The ship's pilot deals with engine travel. The ship's astrogator deals with hyperspace travel. All ships come with a computer containing a powerful artificial intelligence that helps maintain the ship. Outfit yours with Piloting or Astrogation software and the computer can fulfill either position. Give it both and the ship can fly itself.

Hyperspace Travel

Just as ancient sea-farers used constellations to navigate the oceans at night, spacers use constellations to find their way around space. Only these are not constellations of stars but

constellations of galaxies and quasars which are so distant they have positions that are as fixed to the sky of our galaxy as stars are fixed to the sky of a planet. The big problem is that these distant celestial bodies are generally fainter than stars and nearly impossible to positively identify with an atmosphere in the way.

Astrodomes. To do celestial navigation right, you need to head out into space and do the astrogation there. All ships come with an astrodome which is a small computerized array of observational equipment suited to the task. It doesn't matter how good you are at astrogation, you won't get far without an astrodome. Anyone who jumps to hyperspace without one will be permanently lost in space, jumping from place to place, always landing light years away from anywhere and unable to get their bearings. *Never leave home without an astrodome!*

Distance. The farther you are from your destination the harder the navigation becomes, taking a -1 for every light year of distance. No penalty is taken when traveling less than one light year.

Distance = -1 per Light Year.

Time. Even with the help of an astrodome making these observations and calculations takes at least 1 hour to do right. This can be sped up in an emergency but doing so will complicate the check.

Time Spent	Modifier
1 hour	-0
40 minutes	-10
30 minutes	-20
20 minutes	-30
10 minutes	-40
1 minute	-50
10 rounds	-60

Ten rounds (thirty seconds) is as quick as it gets. At that point the astrogator isn't plotting a course so much as slamming the *Void*

Field Generator into gear and hoping for the best. It always takes at least ten rounds for a VFG to create a field and go.

Jump to Hyperspace! Void Field Generators work by stretching normal space around a ship. You don't actually fire your engines to move. Instead the field collapses behind you, propelling the ship forward at a constant rate of 3.14159... seconds per light year. The trick to astrogation is getting the computer to shut down the void field at precisely the right moment to keep from over-shooting your destination. This combines all of the modifiers mentioned above with half of the navigator's Intellect and that character's Astrogation skill.

1/2 Intellect + Astrogation - Distance - Time.

3: 1d10 Megs away.

2: 2d10 Megs away.

1: 3d10 Megs away.

1/2: 1d100 Megs away.

F: 2d100 Megs away.

C: Obliteration!

Meg is short for ***megameter***, one of which is 1000 kilometers. It is used to figure out how long you will need to travel by engine to make that final leg of the journey. **Obliteration** is exactly that. Space is not as empty as it seems and you rematerialized either around or inside of something. Not to worry, your destruction will happen so fast you won't even notice it.

Into The Void. The Void isn't a place. It's called the Void because after an initial blast of what appears to be streaking starlight, look out any porthole and you will see nothing but darkness. There is no way to navigate and you will not be able to see or communicate with anything beyond the void, including other ships that may be jumping through hyperspace alongside you.

Inside the Void things get weird quick. Being separated from the rest of the universe, the fabric of space/time easily distorts. Sounds stretch, colors shift and pulse. People often report vivid

hallucinations and wild dreams that far outlast the actual time spent inside the void. The bonds that hold matter together start to dissolve. Stay in the void too long and you might not come back out.

Void Sickness. Gamewise every occupant, organic and digital, takes 1d10n damage from entering the void and another 1d10n for every 10 light years traveled through it. This roll is made once and the same amount of damage is given to everyone onboard. The ship adds 1 hour to its maintenance clock. *Nothing protects against any of this.*

Light Years Traveled	Damage	Hours
00 to 10	1d10n	1 MC
11 to 20	2d10n	2 MC
21 to 30	3d10n	3 MC
31 to 40	4d10n	4 MC
41 to 50	5d10n	5 MC

So any trip into the void will do at least 1d10n to each of the ship's occupants and put 1 hour on the ship's Maintenance Clock. An eleven light-year jump increases this to 2d10n and 2 MC hours. The trip itself takes just 34 seconds.

The Milky Way is approximately 100,000 light years wide. Anyone trying to cross it in a single jump would take 10,000d10n in damage, add 10,000 hours to the ship's maintenance clock, be gone for three and a half days, and probably emerge as a loose stew of subatomic particles on the other end.

Do not attempt this.

Void Hopping. Most Astrogators make a number of jumps to travel long distances, usually no more than 10 light years at a time. This is a safer way to travel but it lengthens the journey as more time is needed to find ones bearings and make another astrogation check between each jump. Gamewise, instead of telling us how far we land from our destination, the in-between checks provide us with a bonus or penalty leading to the next jump.

1/2 Intellect + Astrogation - Distance - Time.

S: Next Jump +5 per success.

1/2: No change.

F: Next Jump -10.

C: Obliteration!

These bonuses and penalties **do not** accumulate. They only apply to the next jump the ship makes. It is only with the very last jump does the ship use the action table that tells us how far away our destination is.

Out of the Void. Despite the amazing speed at which void travel happens, there are no G-forces involved and the ship will emerge from the void moving at the exact the same speed at which it entered it, although void sickness will often leave the crew feeling like they just got off a rollercoaster.

Engine Travel

There was a time before hyperspace when engines were the only way to go. Most travel was confined to one's solar system. A few large generational ships were shot off to the near-by stars. Most were never heard from again. Compared to hyperspace, engine-based travel is an exceedingly slow yet necessary way to get around.

Terrain. Vehicles capable of space travel will have the **Space** terrain on its sheet. It is a bit different from the other terrains in that its cruising speed is in **megameters per hour** (MMPH) and will range from **1 to 6**. The burn number has a small **f** behind it to remind us it burns **Fuel Units** not Energy Units. Spaceships need a tremendous amount of power and would not get far on battery power alone.

Quite simply, once you pull out of hyperspace and figure out how far you have left to travel, divide that distance by your speed and the result is the number of hours the trip will take. The terrain's burn number is the number of fuel units you burn per hour.

Travel Time = Distance / Speed.

If you don't have enough fuel to make the trip you need to reduce your speed until you can. Every drop of **1 speed point** cuts your burn rate in **half** with a minimum of **1f**. The trip will take longer but eventually you will get there. Unless of course - *you don't have any fuel* - in which case it's time to send out an emergency beacon.

[example]

It is important to remember that spaceships burn fuel to speed up as well as slow down. In theory, you could burn the last of your fuel to speed up to a ridiculous rate, but with no way of slowing down the ship would carry on at that speed into infinity. *Not a pleasant way to die.*

Fuel Burn. The amount of fuel you burn to make the trip should be recorded on the ship sheet using roman hash marks in the Fuel section. Every **10 fuel loads** burned adds **1 hour** to the ship's maintenance clock. Every time you amass 10 hours on the clock you need to make a Maintenance roll to see if anything has gone wrong (see *Maintenance in Adventure*).

Docking

A space dock is a slip at a space station that a ship can tie up at and stay for a while. Docking space is limited and the larger your vessel is the harder a time you will have finding a dock to fit it. Ships with a hull size of 10 or greater often have to pull into orbit somewhere near-by and use a smaller craft to travel to and from the station.

Pulling into or out of a space dock can be nerve-wracking. It requires slow meticulous movement and a Pilot check. Typically it takes **1d10 minutes** to dock. When time is of the essence this can be shortened to **2d10 rounds** for a **Pilot -10**.

Pilot

S: You do it!

½: Try again at -10.

F: Scrape does 1d10h damage to ship and station.

C: Slam does 3d10h damage to ship and station.

When trying to dock, a half success will force you to circle around and try again, using up another stint of time leading to the docking attempt. Fail or crash and you hit the dock with enough force to do some damage to both ship and the station. *The dock master will not be happy!* Unfortunately, inertia fields need to be lowered to dock a ship. They cannot be used to protect the ship or space station from impact. Docking does burn some fuel but not enough to matter.

Landings & Take Offs

Most spaceships do not do landings or take offs. They were built in space and never meant to enter an atmosphere, to the point where most are built without landing gear or aerodynamics of any sort. Other ships can land on the surface of a planet, but it is not easy.

Gravity. The heavier a planet's gravity is the harder it will be to make both landings and take-offs. Every 0.25g of gravity brings a -5 Pilot penalty. Ships with grav-lifters alter the pull of gravity, lessening this penalty.

Gravity	Modifier
0.00g	-0
0.25g	-5
0.50g	-10
0.75g	-15
1.00g	-20
1.25g	-25
1.50g	-30
1.75g	-35
2.00g	-40

When a planet's gravity does not cleanly fit into these denominations, round down to whatever comes closest. A 1.01g to 1.24g rounds down to 1.00g.

Atmosphere. The atmosphere surrounding a planet can also present problems. Aerodynamically designed ships handle atmosphere better than Standard ones. The more cloud ridden and stormy the atmosphere is the harder it will be to fly through.

Atmosphere	Aerodynamic	Standard
None	-0	-0
Thin	-5	-10
Medium	-10	-20
Thick	-15	-30
Turbulent	-20	-40
Rough	-25	-50
Brutal	-30	-60
Hurricane	-35	-70

Engine Types. Certain engines are better suited to landings and take-offs than others. **Chemical** engines are brutal and tend to shake a ship mercilessly. **Fusion** engines are far more forgiving and provide a smooth slide in and out of the sky. **Fission** engines are a little worse. They also irradiate the landing/take-off area. **Ion** engines will falter and fail if taken into any atmosphere thicker than thin.

Engine	Modifier
Chemical	-20
Fusion	+10
Fission	+0 (irradiates area, # of days = thrust count)
Ion	-10 in a thin atmosphere.

Stress. A stressed ship is one that has taken 50% or more of its HP in damage. Being stressed brings a -20 to both landings and take-offs.

Landings. To land a ship on a solid surface make a Pilot check plus factors for gravity, atmosphere, engine type and stress. The ship needs to have landing gear, otherwise it will take **3d10h** on landing no matter how successful the check went.

Pilot + Gravity + Atmosphere + Engine Type - Stress

S: You land successfully!

1½: Rough Landing, does 2d10h.

F: Hard Landing, does 5d10h.

C: Crash Landing, does 10d10h.

Take-Offs. Taking-off from a solid surface is just as dangerous as landing on one. A half success will give you another chance to get it right, otherwise your lift-off ends with the vehicle having to return to the planet's surface.

Pilot + Gravity + Atmosphere + Engine Type - Stress

S: You take off successfully!

1½: Unsteady Flight! Try again at -10.

H: Hard Landing, does 5d10h.

C: Crash Landing, does 10d10h.

Fuel Burn. Landing ships burn 1 fuel load for every point of hull size, multiplied by the gravity of the planet. Take-offs require 1 fuel load per point of hull size for every megameter of atmosphere the ship ascends through (with a minimum of 1 meg) multiplied by the planet's gravity.

Landing = Hull Size x Gravity.

Take-Off = Megameters x Hull Size x Gravity.

Planet Earth has an atmosphere that is 10 megameters thick. Its gravity is 1.00g. An Adventure Scout with Hull Size 3 would burn three fuel loads to descend to its surface. Taking off from Earth burns thirty fuel loads.

Ships with anti-gravity lifters can lessen the pull of gravity. If that scout happened to have *Anti-Gravity Lifters 0.25* it could reduce the pull of Earth's gravity by a quarter to 0.75g. This reduces its burn to two fuel loads on landing and twenty two on take-off. When the gravity is reduced to 0.00g at least 1 fuel load needs to be burned to perform a landing or take-off.

If you don't have enough fuel for a landing or take-off you can still attempt it but you take a **Pilot -5** for each missing load of fuel.

COMBAT

Space combat is like vehicular combat with a few extra bells and whistles thrown in. It moves in rounds, each of which is just three seconds long, long enough for each crew member to do one thing. The pilot of the craft usually makes evasive maneuvers while the rest of the crew fires the ship's weapons. Each weapon requires one character to fire it and can only be fired once per round.

Detection

Space is big and empty, making it very hard to launch a surprise attack. A ship's astrodome, when not helping the astrogator, will constantly monitor the ship's surroundings and notify the crew of any approaching ship, informing its:

- Hull Size

- Class

- Affiliation

- Obvious Damage State

- Outstanding Weaponry

Beacon signals are often used to broadcast a ship's affiliation, usually an allegiance to a corporate or military force. Of course, beacons can be turned off or rigged to send out the wrong signal (see *Beacons* in *Adventure*).

Scanning. When deemed necessary, the astrogator can use the astrodome to scan an approaching ship, basically X-raying its contents. Only one ship may be scanned per round and that ship will notice it. Being scanned is often taken as a gesture of hostile intent. What you discover depends on a check made by the Astrogator.

Sense + Astrogation.

3: Crew Size, Concealed Weapons & Shields.

2: Maintenance Clock, Remaining Power, Fuel and Ammo.

1: Alert Status, Defenses, Component Damage.
1/2: HP Damage, Obvious Weapon Systems.
C: Fried the Astrodome!

Each success builds on the previous one, so at three successes you will know anything you could have learned with any lesser success, such as the ship's alert status or HP damage.

If the scanned ship is using a *Scrambler* the scan check takes a **-40** however there is no hiding the fact that a scrambler is in use, which means the ship is probably hiding something.

Hail the Ship. Analog signals can be used to hail any ship within range, opening up audio and video communication between the two bridges when desired. It is left to the ship being hailed to decide whether they want to respond with video, audio, or not at all.

Red Alert! Red Alert is a warning the ship's captain gives to the crew to prepare for battle. It only needs to be done on ships that are big enough to have generic crew members. Once the alarm lights start flashing the crew has **4 rounds** (twelve seconds) to strap themselves into battle stations so they don't get tossed about like rag dolls. Any captain entering combat before the four rounds have passed should roll **1d100** to see if any generic crew members have been lost.

01: None. **95:** 1 Lost. **98:** 2 Lost. **00:** 3 Lost.

Because every unit of energy is needed in a space battle, going to red alert automatically shuts off everyone's ability to drain power from the ship's batteries. What they have is in their personal power supplies until the alert is over. The captain of the ship may toggle this on and off as needed.

Initiative

Every round begins with the pilot of each ship rolling its initiative die. *There are no initiative modifiers.* The ship with the highest roll attacks first. When a ship is given the chance to go, everyone on

board that ship should make their action for the round. Once complete the ship's INI die is taken off the table and the next ship gets to go. When two or more player ships roll the same number they cordially decide who goes first. When a player and GM roll the same number, the player's ship always goes first.

Surprise! During the first round of combat, any ship that has not gone to *Red Alert* and rolls a 1 for initiative has been caught by surprise. Take that ship's die off the table. It will not be able to do anything that round.

Evasive Maneuvers

When given the chance to go, the first thing a pilot should do is decide to make Evasive Maneuvers or not. This is a piloting check that suffers the same penalty that the pilot of the ship wants anyone targetting the ship to suffer. Want a Target -10? Take a Pilot -10. Evasive maneuvers max out at -30.

Pilot – Evasive Maneuvers Penalty

S: Harder to hit. Crew -5.

1/2: Half as hard to hit. Crew -10.

F: Crew -20.

C: Crew -40.

Harder to hit means you succeeded. Anyone targetting the craft for the rest of the round will take that penalty. *Half as hard* cuts the penalty in half. The big problem with evasive maneuvers is that the crew will be jostled about by sudden changes in momentum. *Crew* is a penalty that everyone aboard the ship takes for the rest of the round except the pilot. However, since it takes **3 beats** to perform evasive maneuvers often that is all a pilot does.

With land-based vehicle combat, when an evasive maneuvers check crashes the vehicle itself crashes. This doesn't happen in space, not unless there is something to crash into. Instead the crew gets severely jostled. When flying through an area of space with something to hit, such as an asteroid field, a crash should cause a collision instead.

Stress Fractures. Stressed means a ship has taken **half its HP** in damage or more. Attempting evasive maneuvers will cause stress fractures to spread through the hull. Every **-10** you seek does the ship's **Hull Size** in damage to itself. The Adventure Scout has a hull size of 3, so a stressed one trying to make -10 evasive maneuvers will take 3 points of hull damage.

Attack!

Each weapon on a ship can fire **once per round** and needs a crew member or the computer to aim and fire it. A ship's computer can multi-task but it suffers a -10 for every additional task it is asked to do. Piloting the ship or firing off a weapon it can do without problem. Ask it to do both and each takes a -10.

Declare. Declare what weapon your character will fire and at which opponent. Energy weapons drain the ship's power supply every time they are fired. If you don't have the power the weapon won't fire. Projectile weapons come with an ammo count. Every shot depletes it by 1 until empty. Gauss weapons drain both power and ammo. Once out of either the weapon won't fire.

Direction. A weapon's **Dir** is a two or three letter code that tells us the direction it fires in. If any have a **C** before them the weapon is **concealed** and takes **1 round** to pop out of the ship's hull before it can be used. The direction codes are:

F = Fires Forward

B = Fires Back

L = Fires Left

R = Fires Right

D = Fires Down

U = Fires Up

RT = Rotating Turret

While an RT can fire in any direction, the other directions are fixed. Without miniatures we don't really know who is where in relation to the ship, but we do know that a ship can only be in one

position. If you fire on it with forward facing weapons you are also choosing not to fire on it with back or side facing weapons.

Distance? As with all vehicles. The ability to move with supreme speed makes it very hard to keep track of distance and the influence of range. Unless something says otherwise, if your opponent is close enough to attack you then you are close enough to attack them.

Targeting Locations. Normally, you aim at a ship, fire a weapon and damage is done to its hull. You may attack specific parts of a ship but doing so brings a penalty. When you miss you miss the entire ship.

Engines -10

Weapons -20

Shield/Screen Generators -20

Choose to do this and if the damage of the attack can breach the ship's defenses it will do damage to a specific component of that ship (engines, weapons, etc) instead of the ship's HP. If it completely destroys the component the excess damage will hit the ship's HP.

Roll to Hit. Add the weapon's **Hit** modifier to your **Reflexes + Skill**. Add in any other modifiers that might apply and roll the dice. Success tells us the number of times you roll for damage. All spaceship weapons do heavy point damage.

Defend

Most spaceships are defended by force fields called **shields**. They work just like normal force fields but on a larger scale. It takes **one round** to raise shields. This is often done when going to *Red Alert* but it is not a given. The command to raise shields must be issued. Roll your shield dice and subtract it from the incoming damage.

Albedo = protects against lasers.

Energy = protects against particle weapons.

Inertia = protects against gauss weapons and rockets.

It is assumed that all of a spaceship's weapons have been synced to these shields. They should have no problems firing through them.

Countermeasures. Some crew members play defense. Instead of going when the rest of the ship goes, they sit behind their console watching for inbound rockets and missiles to shoot out of the sky. *They attack when attacked.* They make a hit roll minus one of the following penalties depending on what they want to shoot down. Succeed, even with a half success, and the inbound missile is destroyed.

Torpedo = -15

Missile = -20

Rocket Battery = -30

The important catch is that the weapon being fired cannot be used for anything else that round. A laser battery reserved for counter-measures can fire once on an inbound missile and that is it.

Interceptor Missiles or ICMs are clusters of small missiles designed specifically for this task. They have a great chance to hit, but only do enough damage to detonate an inbound rocket. ICMs still need a dedicated crew member or the attention of the ship's computer to fire. If you leave the ship's computer in charge of counter-measures, remember that it takes a -10 multi-tasking penalty for every additional thing it tries to do.

Screens. Screens are essentially snow guns that spray a chemical mist around a ship which flash freezes into a cloud of protective crystals. The screen becomes effective one round **after** it is deployed. The three main screens and their effects are:

Albedo: Lasers Hit -30

Energy: Particle Hit -30

Ferro: No Disruptors or Tractor Beams.

You can have more than one screen deployed simultaneously. Their big weakness is that the cloud will cover the ship just as long

as **no evasive maneuvers** are attempted. Once the ship does so it will separate from the cloud and the protection is lost.

Firing a weapon out through a screen designed to protect against it will cause the attack to suffer its penalty. Fire a laser out through an Albedo Screen and it takes a Hit -30.

Laser-Reflective Hulls. Ships with a laser-reflective hull essentially have a mirror finish. As long as the ship is not stressed, it will take half damage from any laser fire that makes it through the ship's force fields and albedo screens.

Damage

When a ship takes damage, unless something was specifically targetted (engines, weapon ports, shield emitters, etc) the damage hits the hull of the ship first. If it does enough damage to match the hull's breach point the rest of the damage enters the vessel. The player in control of the ship then gets to decide where it goes, just as long as it all goes somewhere.

When something was specifically targetted, the component takes damage until it is destroyed. After that the remaining damage can be soaked up by either the hull of the ship or components inside the ship.

Hull Damage. The ship's HP is the amount of damage it can take before breaking apart into a flaming smatter of space junk. After damage has breached the hull you can continue to let the hull take damage; however, once a ship takes **half its HP** or more it becomes **stressed** and all kinds of bad things happen. Do what you can to keep this from happening.

Component Damage. A bit like cybernetic limbs on a character, components come with their own separate HP counts. This is the amount of damage it takes to make something break. ICMs go off like fireworks but do no damage to the ship. Masking screens spray chemicals all over the place. Destroyed energy

weapons cease to function. Crew members scream, regretting their life choices before it all goes black.

Rockets, missiles and torpedoes will explode! They do a single success of damage to the ship. Hitting it from the inside out. Battery packs and fuel cells are also quite volatile. It is highly recommended that you save these things for last so you can at least go out with a bang.

Recoil

The Recoil phase occurs at the end of each round after all ships have had the chance to go. In it anything that happens once per round will happen, such as the drain caused by force fields.

Escape

Eventually, someone is going to wise-up and high-tail it, seeking to outrun their opponent with engine power. This is handled like a normal vehicle chase but with a few notable changes.

Outrun! First we need to see if the fleeing ship can outrun their opponent. Multiply the speed of the fleeing ship by 1.5. If it is greater than or equal to the speed of the pursuing ship escape is possible. Otherwise the fleeing ship is just too slow.

Fleeing Ship x 1.5 >= Pursuing Ship

Pilot Competitions. After that a series of **Pilot Competitions** are made. We keep a tally of the number of wins each side makes. Once the fleeing ship scores **three wins** over the pursuer it escapes. In the meantime, **1d12 rounds** of combat should happen between each competition, giving the pursuing ship a chance to subdue the fleeing one.

Jumping To Hyperspace. While all of this is going on, a fleeing ship with a *Void Field Generator* can attempt to make an emergency jump into hyperspace. At the very least it takes **ten rounds** to activate a VFG and that is with a massive -60

Astrogation penalty. It is highly recommended that you do **not** attempt this unless destruction is imminent.

One thing which makes hyperspace confounding to the authorities is that unlike engine travel, once a ship disappears into the void there is no way to track them, discern which direction they shot off in, or figure out how far they went. *Gone is gone*, perhaps never to be seen again.

SPACE ADVENTURE

This Adventure section is for events and activities that only seem to come up in space.

Asteroids

Asteroid fields are broad stretches of space filled with floating clusters of rock. Trying to fly through an asteroid field requires a Pilot check. Firing your weapons to help clear out some of the rocks brings a bonus equal to the amount of damage done in a single round. Opposing this is double your Hull Size. Succeed and you make it through without a scratch, fail and the ship takes damage.

Pilot + Damage Bonus - (Hull Size x 2).

1: Make it through without a scratch.

1/2: Take 1 hp per Hull Size.

F: Take 2 hp per Hull Size.

C: Take 4 hp per Hull Size.

So if a ship with Hull Size 3 and Pilot 50% tries to fly through an asteroid field, it will have a $(50 - 6 = 44)$ a 44% chance of doing so. If it fires off its laser battery doing 8 points of damage, this will increase its chances to 52%. A half success does 3 points of damage to the ship. Fail increases this to 6. Crash increases it to 12.

Beacons

Ships often fly with radio beacons broadcasting their presence to the local area. Military vessels use a coded transmission that is hard to replicate and largely used to tell weapons like Mines and Seeker Missiles to stand down. Any vessel not broadcasting the right signal or **Command Code** will be seen as a potential enemy and attacked.

False Flag Operations. A character skilled with computers may attempt to change their ship's beacon to broadcast an enemy's signature. Without security clearance, this is no easy feat with a success rate of **1/4 Intellect + Computer Skill**. With security clearance it takes just an **Intellect + Computers Skill** check. Either way the task takes one minute to perform.

The GM should make this check for the player, in private, and write it down as succeeding or not. The crew of a ship flying under a false flag will not know if it worked until they engage with the enemy and are not attacked. Changing the beacon back to its original signal is not a problem. No skill check is necessary but it still requires 1 minute to do so.

Commandeering a Vessel. When taking over an enemy vessel, the ship's beacon can be quite easily turned off. Changing it to broadcast the command code of your affiliation can also be done, just like a false flag operation. However, if the technology of the ship is alien to the character doing the programming the difficulty of the check will be greatly increased.

See also: *Mines* and *Seeker Missiles*.

Boarding Parties

A boarding party is where you grapple a ship, cut a hole in its hull, and send in commandos to take it by force. This is not the easiest thing to do, but when you consider how much spaceships cost, it is a far more lucrative option compared to blowing a ship to pieces and sifting through the wreckage.

Grappling Gear. Your ship needs either a *Grappling Array* or *Tractor Beam* to grab the other ship. Hit that ship as a target and it takes **2d10 rounds** to reel the ship in close enough to board it. A grappled ship can fire on its grappler while this is happening with a **Hit +20**, so you might want to knock out its weapons first.

Energy-wise, tractor beams take 2 heu to make the connection and hold the ship for one minute. Grappling arrays do the same but consume only 1 heu.

Ferro Screens surround a ship in a cloud of highly magnetic fluid. Any attempt to use a grappling array or tractor beam will be gummed up by the screen and miss the ship.

Lampreys. Small ships, such as shuttlecraft, can attempt to land on a ship rather than grapple it. This takes a Landing check where failure does the same amount of damage to each ship (if any). There also needs to be space on the ship being boarded to land on. See *Landings* and *Piggy-Backing* for more.

Cutting a Hole. Once attached, someone needs to take a cutting laser and cut a hole in the hull. Cutting lasers are fairly common pieces of equipment that do **1 HP of damage per round**. Once it does enough damage to by-pass the ship's **Breach Point** you are in!

Bulwarks. Don't put away your cutting laser just yet! The area beyond the hole will decompress as you cut through the hull. The ship's computer should respond to this by slamming shut the nearest bulwarks to cordon off that area. Bulwarks are heavy duty doors, not much different from what is on an airlock. You will need to cut through them in the same way you cut through the hull. The door's HP is the same as the ship's breach point.

HP = Hull Breach Point.

While in theory you could attach a robocomkit and try to hack a door open, a ship that knows it is under attack will have no problem locking the bulwark and cutting power to any surrounding terminals.

If you don't have a map of the ship being boarded, expect to encounter **one quarter its hull size** in bulwarks before reaching the command bridge.

Fighting Time! Now your forces can invade the ship. Don't expect the other crew to welcome you with leis and ukuleles. If anyone is left onboard, the ship's computer will tell them exactly where you have breached the hull and where you are inside the ship. By all means they should be setting up an ambush somewhere between you and the bridge.

Customs

Most planets are set up with a number of security satellites that monitor ship traffic entering and exiting the atmosphere. Most will also have a space station or at least a remote ground base known as a *Customs & Immigration Station* which all visitors are expected to report to as quickly as possible. At the CIS the ship and its crew will be inspected, immunized, and quarantined when necessary. If all goes well the captain will be given a travel visa for a set amount of time. This includes a code to be programmed into the ship's beacon that will announce its permission as well as the length of its stay.

Any ship that does not comply and is caught by security satellites entering the atmosphere will be set upon by heavily armed guard ships and escorted to the CIS to await inspection as well as a hefty fine for not following proper protocols.

Ports-O-Call. Because all of this can pose quite a hassle to those who are simply making deliveries, many of the more populous planets will have a space station or near-by moon-base known as a *Port of Call*. At a port-o-call (as they are more commonly called) a ship can make a delivery or pick up a shipment and only the items will be inspected. Of course, the ship and its crew will not be allowed to leave the port to visit the planet. For that they need to go through the CIS just like everyone else.

Smugglers. While this sounds like a fairly airtight system of border management, it is good to remember that planets are very big places and not nearly as closely watched as they could be. A

fast smuggler might be able to shoot past the security satellites, land on the planet's surface, make a delivery, take off and escape into hyperspace before anyone takes notice. Or they might be blown to smithereens which is the risk all smugglers take.

Decompression

Decompression is what happens when a part of a spaceship is suddenly opened to space. Heat and air in the area will be sucked out of it, often carrying with it anything which is not nailed down. Characters caught in a decompression without a spacesuit will take 1d10s per round until dead.

Decompression = 1d10s per round.

This comes from a combination of factors (freezing cold, depressurization, solar radiation, etc) and does not include the problem of not having any air to breath. Without an oxygen tank you can last as long as you hold your breath (see *Swimming in Adventure*) and that is if decompression doesn't kill you first.

Force Fields. Having an Energy Field or Inertia field will protect you from **half** of the decompression damage (used together they will protect against the whole of it). Only an Atmos Field will totally protect you from decompression damage. These are considered emergency measures. On the whole, it is best to wear a space suit any time you venture out into space.

Equipment

Spaceships, especially the large ones, tend to carry far more stuff on board than anyone realizes - *Wrenches, Screws, Ladders, Rolls of Duct Tape, Blow Torches, Lava Lamps, Etc* - the way we handle this is with a single component called **Equipment**. Its HP count tells us how many heaps of stuff you have on board. Every time it takes a point of damage you lose a heap of stuff.

When a character needs something, such as a roll of duct tape, they should make a Luck check. The success of this tells us how long it took to find it.

Luck

3: You know exactly where it is!

2: 1d10 rounds to find it.

1: 1d10 minutes to find it.

½: 1d10 minutes to find the wrong thing, like a flat head when you needed a phillips head.

F: 1d10 minutes are wasted not finding it.

C: 1 hour is spent to find a note reminding you to buy another one the next time you get a chance to.

Fail the check and you get to try again providing you have more heaps of equipment to search through. So if you have three heaps of equipment you get three chances to find what you are looking for.

This check should be made hard or easy depending on just common the item is. It should not be used for anything truly rare, large or expensive, like a spare Laser Cannon.

Fortresses

Buildings should be treated like spaceships that landed and never took off again. In fact, *many are just that*. Their engines have been stripped down to generators, dirt has built up around their edges and they are now a permanent structure.

Combat-wise this makes them sitting ducks. However, by not having to deal with the rigors of space travel they are not so limited in what they can carry, which means fortresses will often be found bristling with weapons and protected by force fields.

Atmosphere. Masking screens and particle weapons will not work unless the fortress is on a planetoid with no atmosphere. Otherwise the atmosphere itself will provide a decent amount of protection against attacks from space.

Atmosphere	To Hit
------------	--------

None	-0
Thin	-0
Medium	-5
Thick	-10
Turbulent	-20
Rough	-30
Brutal	-40
Hurricane	-50

Flying into an atmosphere to make an attack should be treated like a **Landing/Take-Off** but with a **+20** bonus because you are not trying to touch the ground (see *Space Travel*). The check should be made once upon entering the atmosphere and again on leaving it.

Collapse. Just like a ship, a building should have a number of Hull Points. Once gone the building collapses. The destruction is not as total as it is in space but for most fortifications and its inhabitants that is game over.

Cities. Cities are well aware of the threat from above. Even the most civilized ones (*often the most civilized ones*) will be incredibly well armed and have a shield generator the size of a skyscraper to protect itself with. This will be attached to power plants inside the city that supply it with near limitless energy. Typically there will also be armed satellites and cruisers orbiting overhead.

While the buildings inside a city are largely defenseless, the city is not. A word of advice - *do not attack a city* – not without a very large armada as well as someone sabotaging the place from the inside.

Mines & Seeker Missiles

Mines read the beacon signatures of passing ships and cling to those not broadcasting the right signal. Exploding mines do **3d10h** damage to the ship's hull with no hit roll necessary. Most

minefields will have enough charges to go off **2d10 times** before being cleared.

Many minefields will announce themselves with a message saying essentially – *do not enter* – others can be quite hard to detect. A successful **Sense + Astrogation** check from the astrogator will detect a mine field before entering it, providing they are actively searching for one.

Seeker Missiles. A seeker missile is essentially a missile left floating in space that has been programmed to launch itself at any passing ship which is not broadcasting the right signal. Most have a **Hit 70%** and do **6d10h** in damage. While more lethal than a mine, once a seeker missile fires it is gone, whether it hits or not.

By being a small solitary thing, seeker missiles are harder to detect than mines and require a **Hard Sense + Astrogation** check. Once the missile activates it will be immediately detected and the attacked ship will have **one chance** to destroy it with countermeasures.

See also: *Beacons*.

Miniatures

While not designed as a miniatures game, minis can be used with space combat. You need a large hex-map to represent the area in space where it all takes place and one mini per ship. Each mini should fit inside a single hex which roughly represents one kilometer. Rounds are still just three seconds long.

Current Speed. The current speed of a vehicle is the number of hexes it **must** travel through per round. This can range from zero (standing still) to the cruising speed of the vessel's space terrain. If your current speed is 3 you must travel three hexes per round.

The big catch lies in momentum. You cannot safely accelerate or decelerate more than **1 point of speed per round**. Even if you

have a super-fast ship with a speed of 6, you cannot go from zero to 6 (6,000 kph!) in three seconds, not without severely damaging ship and crew.

Turning Radius. A ship should always face the flat side of a hex (never a point). Your ship's Turning Radius or **TR** is the number of hex sides you can pivot per round. What you get depends on the Pilot % of whoever is at the helm. Every 20 points above 100 is another TR.

00: TR 6

80: TR 5

60: TR 4

40: TR 3

20: TR 2

00: TR 1

So an Adventure Scout with Pilot 65% will have a TR 4. Every time it goes to move it can change up to four facings per round. Even when sitting still the ship can only pivot up to 4 facings inside that hex.

The Battle Begins! When a battle begins, it is up to the GM to decide where the ships will start on the map. Typically they will be in opposite corners of the map with a current speed of zero.

Everything else follows the general rules of starship combat.

Initiative is rolled at the start of each round. Each ship and everyone on it makes their action for the round before the next ship gets to go.

The very first thing a pilot should do when given the chance to go is set the vehicle's current speed, choosing to change it by 1 speed point or leave it as is. After that the pilot can think about making evasive maneuvers. While evasive maneuvers generally has the ship flying about in an erratic fashion, it will never move enough to change the mini's hex position or facing.

Range. Spaceship weapons often come with a R or possibly an RM number.

R is the weapon's range. This works just like ranged weapons for characters. It is the distance inside of which a normal attack may be made. Beyond it a Hit -10 is taken for that same length of distance. Double the r-number and you get its maximum range beyond which a target cannot be hit. A Laser Battery has R9 so it makes a normal attack against anything 9 hexes or closer, takes a -10 with anything 10 to 18 hexes out, and cannot hit anything beyond 18 hexes.

RM stands for *Range Maximum*. Regardless of the range number this is the greatest number of hexes that a weapon can fire across. Anything beyond it cannot be hit. The Disruptor Beam has RM 0. It has no to-hit range problems but you need to be in the *same* hex as your target to hit it.

Mines & Seeker Missiles. A token of some sort should be placed in any hex where mines or a seeker missile has been dropped. Mines will attack anyone who moves through that hex. Seeker Missiles will attack any ship venturing within its RM.

Ship Clusters. A kilometer-wide hex represents a very large area. More than one ship can easily occupy it. When you get a cluster of ships in a single hex, it is best to mark that spot and move the ship minis off to a separate larger area representing it. For purposes of range all ships in that hex are zero hexes apart.

Escape! Because map space is limited, the general rule is that if a ship has moved off the map then it has fled combat and managed to escape. It cannot be pursued and cannot re-enter combat for the rest of the encounter.

Piggy-Backing

Small vessels with landing gear can magnetically attach to larger ships and ride them piggy-back. The maximum number of hull sizes that can do this depends on the hull size of the larger craft.

Hull Size	Piggy Back Limit
1 to 3	0

4 to 6	1
7 to 9	2
10 to 12	3
13 to 15	4
16 to 18	5
19 or 20	6

So a ship with Hull Size 4 can carry a single Hull Size 1 ship, such as a shuttlecraft. A Hull Size 12 vessel can carry 3 hull sizes worth of a smaller craft, such as three shuttles or one scout ship.

The force fields and masking screens of the larger vehicle will surround the smaller ones but the smaller ones cannot use force fields or masking screens to surround the larger vehicle. Active inertia fields will stop the piggy-backing from happening.

[
Add the hull sizes of the piggy-backing vehicles together and **divide by 3**. For each point the larger vessel will lose AD 1 and TR 1 due to the extra mass it now needs to contend with. If either drops to zero the ship will be unable to move.

Maybe it should reduce the vehicle's cruising speed?

Or should it add to the weight carried by the vehicle?

]

Piracy

Piracy is a strange affair. Once a ship gets moving it will often be going too fast for a pirate ship to pull up alongside it and make demands. Jump to hyperspace and you are gone. There is no way to track a ship once it has slipped into the void. Of course, these same factors are what make piracy and other criminal endeavors such a big problem out on the frontier. If you can make it into space, you are not far from an easy escape.

Buccaneers. Most piracy is of the buccaneer style. A ship in orbit is spotted from the planet's surface. A small craft is taken up,

hoping to find it staffed by a skeleton crew. They cut into its hull and remove everything that isn't nailed down. Computers and weapon keys are a favorite target of these space rats, seeing as their high price and small size makes them easy to ransom back to the captain of the ship.

Conniving Bastards! Otherwise, most piracy happens on the surface of a planet or in a space station rather than out in space. Pirates trick spacers into a sticky situation where there is no easy escape, then they start making demands. Compromised crew members return to their ship to sabotage it. Accidents immobilize the ship somewhere out beyond planetary space. A distress signal goes up and the pirates arrive to lend a hand.

Pirate ships are often indistinguishable from ordinary trading ships. They rarely announce their affiliation other than to connect to with other pirates. Pirate bases are often hidden deep inside asteroid belts that make them risky to approach. Those who do not send out the right signal from their beacon will be fired upon without warning.

Star Law does what it can to keep the pirate menace under control, but space is a big place and they cannot be everywhere at once.

Ram Damage

Ships are as fragile as soap bubbles and should be treated as such. This is not entirely true, but it feels true, especially when you consider all that will be lost when that bubble pops. Even dire enemies know better than to ram another vehicle in space, but sometimes passion takes control and a ship with nothing left to lose may try to kamikaze another vehicle.

For this both pilots should make a **Pilot** check. If the strength of the ramming ship is greater than the strength of the ship being rammed it happens. Otherwise, the ship being rammed managed to slip out of the way.

Ram Attempt = Pilot vs Pilot

Ram Factor. Each vessel should find the amount of hull point damage they have left and multiply it by their speed. This is the ship's *Ram Factor*. Both vehicles take the **lesser** amount in ram damage.

Ram Factor = Remaining HP x Speed.

If ship A has 45 hp and has taken 20 points of damage? It has 25 hp left. At speed 3 its ram factor is (3 x 25) 75 points of damage.

If ship B has 80 hp and has taken 10 points of damage that is 70 hp left. At speed 2 its ram factor is (2 x 70) 140 points of damage.

Ship A has the smaller ram factor so both ships take 75 points of damage when they collide. By all means this should result in the utter destruction of the smaller ship. If either ship has an **Inertia** field, its protection should be rolled to protect itself from the damage. It will have no effect on the other ship.

Sneak Attack

Two ways in which making an ambush in space is possible lies in either hiding behind an asteroid until an opponent is close enough to attack, or by using a cloaking field to make the ship mostly invisible. The Astrogator should make a **Sense + Astrogation** check -20 when the opponent is hidden or -40 when cloaked. If successful the ship is noticed before it can attack. Otherwise a sneak attack can be launched. During the first round of combat the crew of the ship under attack can do nothing but panic.

PURCHASING

Whether you mean to buy a new ship, a used ship or have one custom built; your next stop should be one of the many

Construction Centers scattered about the galaxy. Often called a **CC** for short, construction centers are typically space stations specifically designed to create and repair ships. A construction center's CC number tells us just how advanced it is.

CC 4 = 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 alien yet kinda like it)! You get a **+40** when searching for a ship and may find any hull size ship from 1 to 20.

CC 3 = These centers are a bit older and smaller. They are the construction centers which used to be the best before the newer Type 4's were built. They can construct any kind of ship up to size 15. Many have bare-bones amenities attached to them and feel a bit like a truck stop in space. These provide a **+30** search bonus but are limited to hull sizes 1 to 15.

CC 2 = These old dingy space pits are often found in out of the way places. In a pinch they can build up to a size 10 ship but will have you waiting for weeks as spare parts are shipped in from around the galaxy. Don't drink the coffee in the waiting room, it's nasty. These provide a **+20** search bonus and are limited to hull sizes 1 to 10.

CC 1 = These centers are often ground based, think of them as a garage attached to a junkyard which just happens to work on spacecraft. They can *service* ships of size 5 or smaller. Most spacers do not trust them to build anything, *not if they can help it*. They provide a **+10** search bonus and hull sizes are limited to 1 to 5.

Searching. Not all ships are available everywhere. The larger a ship is the harder it will be to find. For each week spent looking make a **Luck Save** minus the hull size of the ship times -5. Something small like a shuttle craft with a hull size 1 is a fairly easy find at -5. A battleship with a hull size 20 is a bit harder to come by at -100. Add to this the construction center's search bonus.

Luck Save - 5 per hull size + CC Search bonus.

3: You find a brand new one!

2: You find one with 1d10 hours on its maintenance clock.

1: You find one with 3d10 hours on its maintenance clock.

½: You find one with 1d100 hours on its maintenance clock.

F: Try again on some other planet.

C: We have one left but it may be demonically possessed and/or belonging to a vengeful warlord who will do anything to get it back.

Discount. Any spacecraft with hours on its maintenance clock is used. Every hour is a 1% discount on the price. So if there are 30 hours on the clock you get it 30% off. This goes up to 50%, after that centers are legally not allowed to sell a ship in such poor condition as anything but spare parts.

1 MC = 1% Discount.

CREATION

Building a spaceship from scratch is no small endeavor. There is a decent amount of math involved, so you might want to try customizing a stock spaceship first before building one from the ground up. Otherwise you will need a fresh ship sheet and a calculator. A few things to keep in mind while building your ship are price, weight, EC and HP.

Price. A number with a dollar sign is in credits. A number with a **kc** following it is in kilocredits. Every 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, ex: \$1,960 equals 1.96 kilocredits.

Weight. Weight is mass plus the influence of gravity. In space there is no gravity so weight shouldn't matter, right? Right? *Not exactly.* Mass is a measure of an item's inertia, its natural tendency to resist being moved. Even without the influence of gravity, mass matters because of the extreme rates of speed at which spaceships travel. This builds up momentum and too much mass with too great a change in speed will tear a vehicle to shreds if its hull is not strong enough. So while space inside a spaceship is limited you will be far more likely to run out of weight before you run out of space.

Ship weight is measured in **hectokilograms** where each is equal to 100 kilograms. Because *hectokilogram* is a bit of a mouthful we call them **loads**, abbreviated as **lds**. The ships themselves are often measured in tons and use a number followed by a **tn**. Ten loads equals one ton.

EC stands for **Energy Consumption**. Just like a robot, it is the amount of energy a ship drains from its power supply every hour. Unlike a robot, ships use *heu* or *Heavy Energy Units* where each is equal to ten of the normal EU used by characters.

HP tells us the amount of damage something can take before breaking. The ship comes with a number of *Hull Points*. Its components have HP which may be called *Heavy Points* or *Hit Points*. All are HP and essentially the same thing.

Limitations. Once you have the sheet filled out, total up the **Price**, **EC** and **Weight** columns. You cannot carry more weight than the hull's max load. You need a big enough power supply to cover at least **24 hours** of energy consumption. And you cannot have a price tag greater than what you have to spend. No ship builder in their right mind will begin constructing a spacecraft until you pony up at least half of the ship's total price first.

Hulls

Choose a Hull Size from the table below. A 1 is as small as it gets, often no bigger than a delivery van. A 20 is as big as it gets and typically used to build battleships for governments and corporations. If there are any hull sizes greater than 20 they are still experimental and probably being created in secret. Anything with a hullsize of 10 or larger is too big to dock at a space station and generally meant to spend its whole life in space, never entering an atmosphere or landing on a hard surface. *Hull Size* is used in multiple ways, such as determining the price of retractable landing gear. Any time you come upon an **HS** in the rules that is a reference to the ship's Hull Size number.

Hull Size	Max Load	Airlocks	CC	Handling	Max Weapons
1	10	0	1	-0	2
2	20	1	1	-0	4
3	40	1	1	-0	8
4	70	1	1	-5	10
5	110	2	1	-5	15
6	160	2	2	-5	20
7	220	2	2	-10	25
8	290	3	2	-10	30
9	370	3	2	-10	35

10	460	3	2	-15	40
11	560	4	3	-15	45
12	670	4	3	-15	50
13	780	5	3	-20	60
14	910	5	3	-20	70
15	1050	6	3	-20	80
16	1300	6	4	-25	90
17	1460	7	4	-25	100
18	1630	8	4	-25	120
19	1810	9	4	-30	140
20	2000	10	4	-30	160

Max Load. This is the greatest number of loads a ship can carry. You can increase this limit by changing the hull's integrity (see below). The actual weight of the hull is its **Max Load x 0.30**. The hull weight does not count against what a ship can carry, but you will need it when designing small ships meant to be carried inside larger ships.

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 to recompress after being sealed up again.

CC. This is the minimum construction center you need to hire to build such a ship.

Handling. This is a piloting penalty that comes from the sheer size of the vehicle.

Max Weapons. This is how much of your max load can be devoted to weapon systems. It does not include defenses or ammo, but it does include weapon concealment.

Hull Integrity. Integrity is the strength of a ship's hull and ranges from Fragile to Tank. The greater a ship's integrity the harder it is to destroy, the more it can carry, and the more it costs to build.

Integrity	HP	Breach	Maximums	Handling
Fragile	5	1	x 0.50	-0
Light	10	2	x 0.75	-0
Medium	15	5	x 1.00	-0
High	20	7	x 1.25	-5
Hard	25	10	x 1.50	-10
Tank	30	12	x 1.75	-15

HP should be multiplied by your ship's Hull Size to find its total HP count. Divide this by 2 to find the ship's *Stressed* point.

Total HP = HP x HS

Stressed = Total / 2.

An Adventure Scout has a hull size of 3. Give it a high integrity and this creates HP 60 and Stressed 30.

Breach Point. This is the amount of damage needed to penetrate the ship's hull. Think of it as the thickness of the ship’s skin. It bears no relation to hull size. A high integrity Cruiser has the same Breach 7 as a high integrity Fighter.

Maximums. The greater a ship’s integrity the more g-forces it can stand and the more weight it can carry. This number multiplies both the hull’s Max Load as well as its Max Weapons.

Handling. This modifier changes the ship’s handling. Build a tank and it is going to handle like a tank.

Hull Price. The price of a ship's hull is its total HP in kilocredits, 45 hp will cost you 45 kc. In addition to the hull this covers wiring, piping, plumbing, lighting, basic furnishings, portholes, galley equipment, life support, waste treatment, communication, surveillance equipment and other basic amenities.

1 hp = 1 kc

Designing a completely robotic ship with no life support should cut this price in half, but it doesn’t. The rarity of such ships makes building one a special order and a hassel for the construction center to fill. If anything you should be happy they are not

charging you extra. Most robotic drone ships do come with life support. It just isn't often used.

Grav-Lifters. Grav-lifters are pods attached to the side of a ship which surrounds it in an invisible bubble of anti-gravity. This decreases the pull that gravity will have on the ship and greatly assist with landings and take-offs. They are expensive, rarely seen on ships with a hull size greater than 5 and almost never on anything greater than 10.

You purchase grav-lifters by the amount of gravity they displace. Every 0.25g counts as 1 grav-lifter. Buy three of them and you can lessen the pull by 0.75g. This is usually written as a component like: *Grav Lifter 0.75g*. The stats of a single grav-lifter depends on the hull size of your ship.

Price = HS x 3 kc.

Weight = HS x 1 lds

HP = HS x 0.5.

Landing Gear. Spacecraft designed to land on a surface will need landing gear. It costs double the hull size in kilocredits, weighs 1 load per hull size, and has 1 hp per hull size. Making the gear retractable increases the cost to 3 kc and 2 loads per hull size.

Price = HS x 2 kc

Weight = HS x 1 lds

HP = HS x 1

So putting landing gear on an Adventure Scout with HS 3 will cost you 6 kc and weigh 3 loads. Making the gear retractable increases this to 9 kc and 6 loads. In both cases the landing gear has 3 hp.

Landing gear comes with electromagnetic rails which allow a ship to stick to any ship that it lands on. This will add the ship's total weight to whatever it has attached itself to.

Void Field Generators. The VFG lets a ship travel faster than light. Its cost is ten times the hull size in kilocredits. Its weight is

equal to the ship's hull size in loads. 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 and the drain happens just once.

Price = HS x 10 kc.

Weight = HS x 1 lds.

HP = HS x 1.

Drain = HS x 5 heu.

Engines

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

Hull/Speed	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

Adventure Scouts have Speed 5 and a Hull Size 3 so it needs at least 48 points of thrust. Spaceship speed is measured in *Megameters Per Hour*. Every point of speed is equal to 1,000 kph. While in theory you could build a ship with a speed that is faster than 6 that amount of velocity will flatten most crews, even thrallasites don't enjoy it, so speed tops out at six.

HP. When it comes to the amount of damage your engines can take, the total is equal to **half your thrust**. As your ship engines take damage they stop working and reduce the speed of your craft. We model this by dividing your speed into separate engines each with its own hit point count.

Under components write in one engine for each point of speed and give each a hit point count equal to your total engine hp divided by the speed and rounded down. Spread any remaining points evenly among the first engines in your list.

Total Engine HP = Thrust / 2

Individual Engine HP = Total Engine HP / Speed

So 48 points of thrust split in half gives us a total engine hp of 24. Divide by a speed of 5 and each engine gets 4 hp. The four remaining points should be given to the first four engines. In the end, your components list should begin with five engines. The first four have 5 hp and the last one has 4 hp. In combat, every time you lose an engine your ship's speed drops by one.

Engine Types. There are four known 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 now are 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 between the stars. Ion engines have great fuel efficiency but only work in a

vacuum. Most will fail if taken into anything more than the slightest of atmospheres. **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 and weight of the engine. *Meaning the entire engine system.* If you want to build a ship that combines different types of engines (ex: a ship with both Chemical and Ion drives) you will need different space terrains and engine components to reflect the different systems. A ship cannot use different types of engines at the same time.

Type	Price	Weight
Fusion	Thrust x 3 kc	Thrust x 0.2 lds
Fission	Thrust x 2 kc	Thrust x 0.3 lds
Ion	Thrust x 2 kc	Thrust x 0.1 lds
Chemical	Thrust x 1 kc	Thrust x 0.5 lds

Price & Weight. These work by multiplying the engine’s thrust. Price is a measure of kilocredits. Weight is in loads. So a fusion engine pumping out 48 points of thrust costs 144 kc and weighs 9 loads. A Fission engine doing the same costs 96 kc and weighs 14 loads. A Chemical engine costs only 48 kc but weighs a massive 24 loads. Note that this is the price of the engine itself, not the fuel it burns.

Fuel

Spaceships run on fuel units, not battery power. The space terrain’s burn rate is your thrust divided by 10 with a minimum of one fuel unit. If you have power generators attached to your engines, each adds 5 points to your thrust for figuring out your burn rate.

Burn = (Thrust + 5 per power generator) / 10, minimum 1

So an Adventure Scout with 48 thrust and 1 power generator will have a burn rate of 5 (i.e. $48 + 5 = 53 / 10 = 5$). If this seems high, keep in mind that during the game you can lower your burn rate

by slowing your ship. Each drop in speed cuts the burn rate in half to a minimum of 1.

Buying Fuel. While you can buy any amount of fuel, it is recommended that you buy at least **ten times** your burn rate in fuel units. That will give you ten hours of travel. It is good to carry more, outerspace is no place to go running out of fuel if you can help it. The type of engine you use determines the price and weight of a unit of fuel.

Type	Price	Weight
Fusion	\$100	0.5 lds
Fission	\$80	1 lds
Ion	\$60	0.1 lds
Chemical	\$50	3 lds

The fuel you have on board should go in the Fuel section of your ship sheet. Fuel does not have HP because if fuel takes any damage whatsoever this will spark off a chain reaction doing massive damage to the ship.

Computer

Even the smallest ship needs a computer to monitor its systems. This section will help you build a very basic computer system. See the *Computer* rules for something more.

Minimum Computer Level. It takes a decent amount of computing power to monitor and run a ship. The ship's hull size determines its minimum computer level.

Hull	Min Computer Level
1 to 4	3
5 to 8	4
9 to 12	5
13 to 16	6
17 to 20	7

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 put a 5 in place of the die roll.

Type	Level	MP	Int	Tre	Cha	Com	
	Frequency		Price				
Personal	3	20	45	60	30	40	
	Uncommon		\$\$\$				
Personal	4	50	60	80	40	50	
	Uncommon		\$\$\$\$				
Server	5	100	75	100	50	60	Rare
	\$\$\$\$\$						
Server	6	250	90	120	60	70	Rare
	\$\$\$\$\$\$						
Super	7	500	105	140	70	80	Very
Rare	\$\$\$\$\$\$\$						
Super	8	1000	120	160	80	90	Very
Rare	\$\$\$\$\$\$\$\$						

Size does not matter with computers. Even super computers are surprisingly small devices that take up no space inside a ship. The computing center that the computer connects to is far larger and made mostly of wires and display panels. It should be added as **Computer** to your components list. It weighs **half** the computer's level in loads and has an equal amount of hit points.

Buying Software. The big three programs for spacecraft are **Space Pilot**, **Gunnery** and **Astrogation** (complexities 4, 3 and 4 respectively). Space Pilot allows the computer to fly the ship. Gunnery lets it fire the ship's weapons. Astrogation handles celestial navigation. If you don't want the computer to be able to do any of these things, do not buy it the software. Unlike a normal vehicle, no extra equipment is needed to connect the computer to the vehicle, but if your ship doesn't have the right software the computer will take this as a sign that the area of operation is off-limits.

MP stands for Memory Points. It tells us just how much software can be loaded onto a computer at any one time. **Complexity** is

the number of MP needed to run the software package at +0. Astrogation is challenging with a complexity of 4 so it takes 4 MP to run Astrogation +0 and 32 MP to run Astrogation +15. The price of the software is its MP in kilocredits. Astrogation +15 costs 32 kc.

Complexity	Cake	Simple	Average		
	Challenging		Tough		
+0	1	2	3	4	5
+5	2	4	6	8	10
+10	4	8	12	16	20
+15	8	16	24	32	40
+20	16	32	48	64	80
+25	32	64	96	128	
	160				

Computer Ability Scores. The mental side of a computer comes from the level of its processor. The physical side comes from its case (aka the ship itself). Unless you have added something to the ship which would change the computer's physical ability scores, treat them all as 50%. The ship's base pilot score uses following formula.

Base Pilot = (Intellect + Reflex + Command) / 3

A level 3 personal computer has Intellect 45%, Reflex 50% and Command 40%. Added together and averaged out this gives you Base Pilot 45%.

Astrodomes. An Astrodome is a small array of telescopes and other scanners kept inside a protective dome. These are essential for astrogation. While you may get by without buying your computer an Astrogation program (cheapskate) you cannot use a Void Field Generator without an astrodome.

By law, all hulls come stock with one astrodome. Extra domes **cost 3 kc** and have **1 hp**. Weight is negligible when the quantity is small. Otherwise, each astrodome weighs 5 kilograms.

Astrodroids are small robots that are essentially a rolling can with an astrodome for a head. They are quite popular as they allow

pilots to take trusted navigation equipment from ship to ship.
Used astrodroids often cost **2d10 kc**. Each has **1 hp**.

Crew

Crew represents all the faceless extras working behind the scenes to keep a ship running, aka *Red Shirts*. **These are not player characters**. While they do represent complex individuals with meaningful lives ranging far beyond your ship, they are essentially a ship component and should be written in as a single entry called **Crew**. Each crew member adds **1 kc**, **1 load** and **1 hp** to the component. A Crew 20 will have 20 hp, weigh 20 loads and cost 20 kc. Every time the component takes 1 hp of damage a crew member dies.

Monthly Wages. The price of a crew is what it takes to get them onboard. You will need to pay it again for each **month of employment**. Fail to make a payment and any unpaid crew members will skedaddle the next chance they get. When that chance isn't given and pay is absent they may mutiny.

Minimum Crew. How big a crew should be – at the very least – depends on the hull size of the ship. You may subtract from this the number of player characters who are also onboard.

Hull Size	Minimum Crew
1 to 3	1
4 to 6	5
7 to 9	10
10 to 12	15
13 to 15	20
16 to 18	25
19 or 20	30

Crew Quarters. Every crew member, player characters included, are going to need a place to stay. Each person worth of crew quarters adds another **1 kc**, **1 load** and **1 hp** as a different component called **Crew Quarters**.

Every time the Crew Quarters component takes 1 hp of damage somebody's room just got destroyed. A crew member who has lost their quarters can make do sleeping in the cargo bay but they will not be happy about it and will jump ship the next chance they get if amends are not made.

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. As a component, **Crew Rations** should get a single line item. They are bought in blocks of 100. Each costs 1 kc, weighs 1 load and has 1 hp.

So if you have a crew of 20 it will take 20 rations to feed them for one day. Buy 100 rations and you can feed the crew for five days. Crews tend to be even more sensitive about rations than they are about pay. Not feeding your crew will push them to mutiny!

100 Rations = 1 kc, 1 load, 1 hp.

Robotic Crews. A robotic crew is a crew of robots operating independently of the ship's computer. They cost **4 kc**, weigh **1 load** and have **1 hp** per robot. So they cost twice as much as an organic crew member and still require a monthly salary (replacement servos don't grow on trees!) The benefit is that they do not need food or quarters. Drone ships piloted by computers often carry a completely robotic crew for just this reason.

You can mix a robotic and an organic crew on the same ship, but they should each be given separate component line items. Robots are not known to mutiny, but when denied their pay they will shut themselves down, becoming dead weight inside the ship. Try to eject them into space and they will fight to defend themselves.

Life Support. The equipment that creates life support comes stock with the hull of your ship. The energy that supplies that life support is a different matter. It is **1 EC per person**. It doesn't matter if we are talking about robotic or organic crew members, red shirts or player characters.

1 EC per person.

When you run out of energy to supply life support robots will take to running on their own power supply instead of feeding off of the ship. When that runs out they simply shut down. Organic crew members will have to don a space suit to stay alive. A fresh space suit comes with 24 hours of life support. When that runs out they die.

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 harsh words to fling at them. Out on the frontier, *it is good to be well armed!*

Weapons 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. **Ammo** is the Price and Weight per shot. Anything with ammo stats is sold empty and you have to buy ammo to fill it.

Max Weapons. Every hull size has a **Max Weapons** allotment. This is the greatest number of loads you can have devoted to weaponry. Unlike a terrestrial vehicle, where you mount the weapon doesn't matter, only how much you mount does. A Hull Size 3 has a Max Weapons of 8 so you could mount a Laser Battery and three Rocket Batteries on your ship, or one Electron Battery, or any weapon combination whose load adds up to 8. Ammo does not count against this but concealment and turrets do.

Weapon	Defense Con	Price Ammo	Weight	HP	
Laser Gun	Albedo	5 kc	2	2	2
	-				
Laser Battery	Albedo	10 kc	5	4	3
	-				
Laser Cannon	Albedo	15 kc	10	8	4

	-				
Electron Gun	Energy	10 kc	4	3	2
	-				
Electron Battery	Energy	15 kc	8	6	3
	-				
Electron Cannon	Energy	20 kc	12	12	4
	-				
Proton Gun	Energy	15 kc	6	4	3
	-				
Proton Battery	Energy	20 kc	12	8	4
	-				
Proton Cannon	Energy	25 kc	16	16	5
	-				
Disruptor Beam	Energy	8 kc	10	3	6
	-				
Gauss Gun	Inertia	2 kc	2	3	1
	\$100, 0.5				
Gauss Battery	Inertia	4 kc	5	6	2
	\$400, 1				
Gauss Cannon	Inertia	6 kc	10	9	3
	\$600, 2				
Mass Gun	Inertia	1 kc	1	4	1
	\$50, 1				
Mass Battery	Inertia	2 kc	3	8	2
	\$200, 2				
Mass Cannon	Inertia	3 kc	5	12	3
	\$300, 4				
Rocket Battery	Inertia	2 kc	1	2	2
	1 kc, 1				
Missile	Inertia	5 kc	2	4	3
	3 kc, 3				
Torpedo	Inertia	10 kc	3	6	4
	5 kc, 5				
Mine Dropper	Inertia	2 kc	10	6	5
	12 kc, 6				

Seeker Missile	Inertia	4 kc	2	4	5
	6 kc, 3				

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 per success. The roll is always lethal and does heavy point damage. **Energy** is the amount 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. R and RM are used with minis. All weapons take 3 beats to fire and cannot fire more than once per round.

Weapon	Hit	DMG	Energy	Aspects
Laser Gun	+5	1d10	2	R9
Laser Battery	+15	2d10	4	R9
Laser Cannon	-5	3d10	6	R12
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 0
Gauss Gun	-0	2d10	1	R3
Gauss Battery	+10	3d10	2	R3
Gauss Cannon	-10	4d10	3	R4
Mass Gun	-0	1d10	0	R2
Mass Battery	+10	2d10	0	R2
Mass Cannon	-10	3d10	0	R3
Rocket Battery	+15	3d10	0	RM4
Missile	+10	6d10	0	RM6
Torpedo	+5	10d10	0	RM8
Space Mine	???	3d10	0	
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 them a favorite among spacers.

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 into or through an atmosphere. They 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 voltage can be used to either recharge the attacking ship's energy supply or simply vented out into space. The **es** attached to its damage roll is a reminder that it attacks the energy supply rather than doing damage. Disruptor beams are a favorite weapon of hijackers and pirates making it a one you will probably want to conceal.

Gauss Weapons. Also known as *Rail Guns*, these use magnetic force to shoot steel rails with blistering speed. They do not drain as much power as other energy weapons but they require both energy and ammo!

Mass Weapons. A throwback to the days of thundering cannons, mass weapons use simple explosive charges to propel solid shot through space. They are not as effective as gauss weapons but they are cheaper, more durable, and do not require any energy to fire.

Rockets, Missiles & Torpedoes. These are essentially rocket launchers. A rocket battery fires off a fusillade of small missiles which is hard to stop with countermeasures. Missiles and Torpedoes launch a single large rocket when fired.

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 often how things 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:

F = Fires Forward

B = Fires Back

R = Fires Right

L = Fires Left

For **double** the weapon's **price** and **weight** 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 this **doubles** its price and weight. Concealing a turret **quadruples** the weapon's price and weight. It takes **one round** for a concealed weapon to pop in or out of a vessel. We mark concealment by adding a **C** to its position. A CF is a *Concealed Forward* firing weapon. A CRT is a *Concealed Rotating Turret*. Concealing any weapon increases its contraband number by 1.

Hit Score. Your percentage chance to hit with a weapon depends on who is firing it. Generic crew members may man weapons but they always have a base 50% chance to hit.

Character = Reflexes + Gunnery + Weapon Hit Mod

Computer = 50% + Gunnery + Weapon Hit Mod

Generic Crew = 50% + Weapon Hit Mod

Locking Keys. All ship weapons come with unique highly-encrypted locking keys that need to be inserted into a weapon's console panel before it will fire. This allows the authorities of highly civilized areas to essentially confiscate a weapon without actually removing it. Creating duplicates of a locking key without destroying the original is highly illegal.

Do not buy any weapon that doesn't come with a locking key!

Force Fields

Force Fields for ships work just like the ones used by characters and vehicles. The bigger the ship is the bigger a force field generator you need to buy and the more energy it consumes when used. The drain happens at the end of every round. Should this ever drain your power supply dry the force field disappears in the next round. The price, weight, hp and energy of a force field generator is meant to be multiplied by the hull size of the ship. Its contraband number is not.

Shield	Albedo Scrambler	Inertia	Energy	Cloaking
Price	2 kc 2 kc	3 kc	4 kc	18 kc
Weight	1 1	1	1	1
HP	1 1	1	1	1
Energy	1 0.5	1	1	0.5
Contraband	2 4	2	2	7

Defensive Fields. Albedo, Inertia and Energy fields provide 1d10 in protection per instance. So if you want an Albedo 1d10 field for a Scout ship with HS 3 that is going to cost you 6kc, weigh 3 lds, and have 3 hp. It consumes 3 heu every round it is used. Upgrading to Albedo 2d10 doubles all of this. Albedo 3d10 triples it.

When the energy consumption is different from the count of protection dice (as it almost always is with spaceships) you should put that number between the shield name and the dice roll ex: *Albedo 6, 2d10*.

Cloaking Fields. Cloaking fields turn you mostly invisible. Anyone trying to detect or target your ship 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 the field's shield emitters are always mounted as a concealed item. The cost of this is already covered by the price and weight of the cloaking field.

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 in use. While scramblers do use some energy to erect a field, unlike other force fields it is not enough to matter. However you do need energy in your power supply for it to work.

Defenses

While most ships rely on force fields for defense, others use more physical means such as Masking Screens, Interceptor Missiles and Laser Reflective Hulls. Armor is not used on spaceships because of the weight problem. It simply weighs too much for the amount of

protection it provides. You get far more from simply increasing the integrity of your hull.

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 Ferro. They largely look alike and it is impossible to tell what a screen is without firing into it first. 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	Weight	HP
Screen Discharger	2 kc	2	2
Albedo Screen	1 kc	1	1
Electron Screen	1 kc	1	1
Proton Screen	1 kc	1	1
Ferro Screen	1 kc	1	1

For every 4 points of hull size you will need another screen discharger to completely cover the ship. The price, weight and HP of ammo increases likewise.

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

Electron & Proton. Electron screens give a Hit -30 to Electron weapons and a Hit +30 to Proton weapons. Proton screens do the exact opposite with a Hit -30 to Proton weapons and a Hit +30 for Electron weapons. Trying to fire a proton weapon out through an

electron screen (or an electron weapon through a proton screen) will do a single roll of damage to the ship.

Ferro. Ferro screens use a highly magnetic fluid to thwart Disruptors, Tractor Beams, and Grapplers. Neither can fire into or out through a ferro screen.

Interceptor Missiles. These are small unguided rocket barrages designed as countermeasures to get missiles to explode before reaching their target. The launcher costs **2kc**, weighs **1 load** and has **1 hp**. A 10 shot load of ICMs costs **1kc**, weighs **1 load** and has **1 hp**.

Laser Reflective Hull. The mirrored surface of a reflective hull reduces laser damage by **half** but it only works as long as the ship is not stressed. The price of it is **2 kc per hull size**.

Power

Power supplies are essential in space. Life support runs to the tune of 1 heu per person per hour. *Need we say more?* Total up the **EC** of everything on the ship, multiply it by **24** and that will give you the minimum in battery power you should buy for your power supply. Generally, it is a good idea to buy more than that, especially if you are counting on energy weapons and force fields for defense.

Spaceships use the same batteries as characters, we just don't bother with any type smaller than D. The *Xcell* option is available. This doubles the price and energy of a battery while weight remains the same.

Type	Price	Energy	Weight
D	1 kc	100 heu	1 lds
E	10 kc	1000 heu	10 lds

Explosive! Like anything that concentrates a lot of energy into a small space, batteries are explosive. They get 1 hp in your component list. Once that is gone your entire power supply blows

up doing 1 point of damage for each 1 heu left in it. This often damages components first and the ship's hull last.

Power Generators. These dynamos feed off a ship's engines to recharge your power supply with **1 heu per minute**. Each generator costs 3 kc, weighs 1 lds and has 1 hp. The downside of power generators is that each adds 5 points to your thrust when it comes to figuring out the ship's burn rate.

Power Generator = 3 kc, 1 load, 1 hp. Adds 5 to thrust for Burn Rate.

Solar Arrays. A popular and more fuel efficient way to recharge your batteries is the use of solar arrays, collapsing panels that emerge from the hull, unfold themselves and recharge your power supply. Each array recharges **10 heu per hour** - give or take a few heu for the intensity of star light. Ships may travel by engine power with their arrays deployed as long as they do not enter an atmosphere. Otherwise the array will be ripped to shreds.

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 after a masking screen is deployed.

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

Solar Array = 1 kc, 1 load, 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.

Aerodynamics. 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. While it does not weigh anything, aerodynamics reduces the weight you can carry by 10%. After factoring hull integrity, multiply the ship's max load by 0.90.

This will also give your vehicle the Air terrain. Its handling is the same as what you have for the Space terrain. Its speed is the space terrain x 100. Burn, Pilot and Ini remain the same.

Max Load = Hull Max Load x 0.90

Air Speed = Space Speed x 100

Beacon. All new ships come with a beacon, but they do have a bad habit of giving out after a while. Replacement beacons cost 2 kc and weigh 1 lds.

Extra Beacon = 2 kc, 1 lds.

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. Gamewise each investment in bling brings a Charm +5 to its owner, with a max of +20.

Bling = 2 kc per hull size.

Brig. A brig is a holding cell inside a vessel. A normal brig uses a metal cage costing 1 kc and weighing 3 loads per prisoner. An inertia field brig uses force fields. It costs 3 kc, weighs 0.5 loads, and consumes 1 ec per prisoner. While this seems more efficient, it's good to keep in mind that inertia brigs shut down once the power supply runs dry.

Normal Brig = 1 kc & 3 lds per prisoner.

Inertia Brig = 2 kc, 0.5 lds, 1 ec 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 a Bottle Rocket which combines

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 a 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 carry a return message back to its sender. If it arrives safely the rocket may be reused after being refueled for \$2 kc.

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

Equipment covers the myriad of small stuff spacecraft often have scattered about their supply rooms; things like hammers, wrenches, socket sets and such. You buy it in heaps where each heap costs **1 kc**, weighs **1 lds** 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 is written on your vehicle sheet.

Equipment = 1 kc, 1 lds, 1 hp.

Escape Pod. An escape pod is essentially a capsule with an emergency beacon, **100** rations and **one week of life support**. Up to **four** people can stuff themselves quite tightly inside a pod to escape a doomed ship.

Once ejected into space, the pod's computer will automatically seek out and attempt to land on the nearest habitable planet via parachute, travelling with a **Speed 1**. 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 Pod = 15 kc, 8 lds, 3 hp.

Food Production Center. FPCs use hydroponics to grow vegetables and synthetic meat. Unfortunately, they are expensive, heavy and slow to produce edible food. It's the reason why Agricultural Ships exist. **Ag Ships** make deliveries. **Ag Stations** are the supermarkets of outer space. They do not move but they produce the most food and generally have better prices than Ag Ships.

Each Food Production Unit produces **100 rations per week**, costs **5 kc** for the equipment, weighs **10 loads**, has **1 ec** and **1 hp**. Solar arrays are a must for dealing with the energy consumption! Time also matters. Growth in the hydropods is constant, but it takes at least **2 months** without a harvest to start up a new agricultural operation.

Being free from pestilence and able to provide the perfect growing conditions, the quality of food produced in outerspace is actually quite good. However, most people acquire a taste that is tied to their home world. Unless one was raised in outerspace, the food produced by an FPU will always taste a bit off and somewhat artificial.

100 Ration FPU = 5 kc, 10 loads, 1ec, 1 hp.

Grappling 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 electromagnetic 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 consume energy while active. A grappling array uses 1 heu per minute to grab a ship and hold onto it for a minute. A tractor beam increases this to 2 heu.

Grappling Array = 2 kc, 10 lds, 6 hp, 1 heu per minute.

Tractor Beam = 20 kc, 1 lds, 1 hp, 2 heu per minute.

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 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 does require energy to work but its drain is negligible. Just know that once your power supply goes empty your artificial gravity disappears with it as well.

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*). 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.

1 Hull Patch = \$100, 1 lds, 1 hp.

Lifeboat. A lifeboat is a large escape pod (see Escape Pod, above) that carries **200** rations and can hold up to a **dozen** people stuffed in like sardines. Otherwise, it works just like an escape pod.

Life Boat = 30 kc, 16 lds, 6 hp.

Mining Equipment. One of the big reasons people go into space is to mine precious resources. This is pretty much the same thing as the **Equipment** extra (see above) but specialized to the matter of mining. It is bought in multiple units. The more units you have on board the more mining you can do.

Mining Equipment = 1 kc, 1 lds, 1 hp.

Safe. A box with thick steel walls and a digital lock. When it comes to safes you purchase the number of loads the safe can contain. One load of safe costs 1 kc, weighs 1 lds and has 2 hp. A safe capable of holding six loads of stuff would cost 6 kc, weigh 6 lds and have 12 hp. Keep in mind that that is the weight of an empty safe. Putting four loads of stuff inside it increases its overall weight to 10 lds.

1 Load of Safe = 1 kc, 1 lds, 2 hp.

Shuttle Bays. A shuttle bay is essentially a very large airlock that small spacecraft use as a garage inside a larger spacecraft. The cost and weight of it comes from the machinery that recompresses the shuttlebay after each launch. Only ships with landing gear are allowed in shuttlebays. Electromagnets in the landing gear are needed to attach the ship to the hull of the larger ship and keep it from being torn away by a sudden changes in g-force.

Otherwise, the size of a shuttlebay is only limited by the size of the ship containing it. After the first three hull sizes, every 3 points of hull size can host 1 hull size worth of shuttlebay. So ships of sizes 1 to 3 are too small to have a shuttle bay. Ships sizes 4 to 6 can have a small shuttlebay capable of holding a single ship with a hull size of 1. A ship with a hull size of 7 to 9 can have a medium shuttlebay that can hold two size 1 ships or one size 2 ship, and so on....

Hull Size	Shuttlebay Limit
1 to 3	0
4 to 6	1
7 to 9	2
10 to 12	3
13 to 15	4
16 to 18	5
19 or 20	6

The cost of a shuttlebay depends on what it can contain, i.e. **10 kc and 2 lds per hullsize**. So if you put a size 3 shuttlebay in your starship it will cost 30kc and weigh 6 lds. Keep in mind that the total weight of any vehicle you put inside a shuttlebay should count against the max load of its host vessel. Landing a ship inside a shuttlebay is a docking maneuver (*see Docking*).

1 HS of Shuttlebay = 10 kc, 2 lds, 1 hp.

Deck Design

Deck design is optional but can 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. Unless you are dealing with a small ship with a single deck, the decks of a ship should be kept perpendicular to the ship's engines. This way the g-forces created by rapid acceleration will be pulling the crew towards the floor and not flinging them across the room or to their death down a long hall. 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. Elevators should be used to move between decks. Stairwells present a definite fall hazard.

Scale. Character movement is in meters. If the ship is small enough you should stick to a combat map with a scale of **1 meter** per square. With larger ships make a scramble map with a scale of **3 meters** per square. You don't need to rigidly stick to the grid, corners can be rounded off and sliced diagonally when needed, but unless you are building a Thralasite or Vrysk ship it is best to use graph paper rather than hex paper. Thralasite architecture loves arcs and curves. This works better with hex maps than grids.

Placement. Be sure to include the placement of different items such as **hatchways, doors, portholes** and **airlocks**. Kudos for remembering to place **closets, 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 of the ship. Next come different decks of crew quarters, entertainment, storage, computers, shuttle bays, etc. Finally engineering is kept closest to the engines at the stern. Engines are often kept slightly removed from the body of the ship by struts. Fuel reserves are kept close to the engines. Weapons systems are spread all throughout the ship for better defense. The top of the ship is its front facing. The bottom of the ship is its back.

Space Stations

Space Stations are often conglomerates of spacecraft welded together and reconfigured so that it seems like one large single 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 a bunch of spaceships of varying hull sizes bolted together to create different “wings” or areas inside the station. Most space stations are not mobile. Others may have just enough engine power to adjust their orbit.

To outfit your station with such engines, consider the hull size of each ship that makes up the station and buy enough thrust to give each ship the desired speed of the station. Rarely does this go above **Speed 1**. Once again, most space stations are so fragile they cannot move, not without tearing the station to pieces. Engine power is not mandatory.

The same goes for giving the station a VFG. You need to buy a single generator which is big enough to cover each individual ship. Considering how costly it is to do maintenance on a space

station, finding a station capable of travelling through the void is *incredibly rare*.

Mapping It Out. Making a truly accurate map of a space station is an incredibly ambitious task. To do it make a map of each separate wing of the space station (aka the individual ships that make up the station). Next make a master map showing how all the different wings fit together. Your individual wing maps should include **Spaceways** which are long tubular walkways connecting one wing to another.

Traverse. A far easier way to do this is to create just the master map and give each wing a **Traverse Modifier**. Easily traversed wings should get a bonus. Harder more tangled wings should take a penalty. Now any character trying to find their way through the station just needs to make a **Trek** check plus/minus its traverse modifier. Succeed they make it to where they are going. Fail and they find themselves somewhere else.

Moon Bases

Think of a moon base as a space station built on the surface of a planet. Often that is exactly what they are. Retired spacecraft land on a small asteroid or planetoid, are permanently grounded to that spot, and spaceways are built to connect them to other parts of the base.

Moon Ships? A long time ago, before the advent of faster than light travel, moon bases were famously known for having massive engines with exhaust nozzles the size of stadiums designed to push that rock through space. These were extremely costly and existed on a level that only governments and megacorporations could afford.

Since the dawn of hyperspace travel the creation of movable moon bases has all but ceased. The building of fixed moon bases (aka 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, but no one expects these bases to be moveable.

Ghost Towns. Moon bases tend to be even more rundown and ramshackle than space stations. Many are abandoned just as soon as the operation is over, finding it cheaper to leave their remnants behind than transport them elsewhere. Called *Ghost Towns*, such 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 they can't be everywhere at once and faster than light travel makes it easy for outlaws to escape into space once Star Law arrives and return to the ghost town once the heat is gone.

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 a ship's crew needs to split into work details, each made of **10 members or less**. Their chance to fix something, aka their WDC or *Work Detail Check*, is **5% per person**. So a ship with 25 crew members can form two ten-person work details each with a 50% WDC, and one five person work detail with a 25% 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 50% WDC has a character leading it with Technician +10? That increases the detail's WDC to 60%.

Work Detail = 10 crew members or less.

Work Detail Check = 5% 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. It takes 1 hull patch to repair 1 hp of damage.

WDC.

Time: 1 hour per attempt.

S: Repair 1 hp per success.

F: 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 per 1 hp** of hull damage multiplied by the level of the

construction center. Yes it will cost you four times as much to have repairs done at a high end CC4 center than a budget CC1, but that is because the low-end centers are often desperate for work while the high end ones are not. This covers the cost of everything, man-power, hull-patches, *everything*.

Hull Repair = (1 kc per 1 hp) x Construction Center Level.

Timewise is a different matter. The better a Construction Center is the quicker they get the job done.

CC 4 = Repairs up to 24 hp per hour.

CC 3 = Repairs up to 12 hp per hour.

CC 2 = Repairs up to 6 hp per hour

CC 1 = Repairs up to 3 hp per hour.

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 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 lds** to install the item. Providing the construction center even has it. The pilot of the ship should make a **Luck Save**, +10 for a CC4, -10 for a CC2, and -20 for a CC1. If it fails the construction center will have to order the part which increases its price by **20%** and adds **1 week** to the repair time as it is shipped in from somewhere else.

If you have the replacement item on board it will take a work detail 1 hour per lds to install it and you had better be willing to break out some extra rations to party with afterward!

Let's Make a Deal. *A friend in need is a friend indeed* and construction centers are run by some of the slimiest most

opportunistic friends in space. Construction centers 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 and often negotiate some kind of deal to cover the rest. Keep in mind that they do nothing for free and will always be paid, somehow.

Hawking Damaged Goods. Damaged items 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 and offer better rates.

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

So a Laser Battery costs 10 kc. Hawking a used one you might net you 2 kc at a CC4, 3 kc at CC 3, 4 kc at a CC 2, and 5 kc at a CC 1.

Of course, what separates *Used* from *Damaged* from *Badly Damaged* is in the eye of the purchasing agent that examines it and what they might have a strong need for at the time. This 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 as well as a +20 if damaged or +40 if stressed. Compare your total to the Malfunctions table below and *hope to roll low*. If what you roll does not apply to your ship, use the entry below it.

Malfunctions

Roll: 1d100 + Maintenance Clock. Damaged +20. Stressed +40.

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 24 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 one battery from your power supply. The only way to fix it is to buy a new one.

105: Fuel Gunk. Some strange gunk has appeared in your fuel tank! Lose 2d10 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. Fix It: SRJ or WDC -10.

95: Engine Damage. Each engine takes 1d10 in damage as you attempt to start them up.

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

85: 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 suffer from *Gravity Sickness*. Fix It: SRJ

80: 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 airlock. That someone should be a character in the party and not an extra crew member. Fix It: SRJ or WDC.

75: Solar Array Jam. Your solar array is stuck half in and half out of the hull. Fix It: WDC.

70: Blown Seam. A room in the ship decompresses. No one was hurt but the hull takes 1 hp of damage and you no one can use the room until someone goes out with a hull patch to fix it.

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

60: Dashboard Light Goes Out. It's nothing folks, happens all the time. Say, how many Zathar does it take to change a dashboard diode? *Even one is too many!* Ha-ha, enjoy the flight.

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 will cost your Hull Size in kilocredits, 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 % depends on the price of the item. If you cannot replace it then a construction center will charge you the price of a brand new item plus that percentage of the price. A laser battery costing 10 kc 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.

WDC

Time: 1 hour

1: Repaired the problem!

½: 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.

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 a malfunction it will not reveal itself until you get into space. You may overhaul the ship before making the roll to avoid this. In fact, it's a very good idea to do just that.